# Analysis of Influencing Factors of Bullying in Middle Schools based on Structural Equation Model

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### **Abstract**

School bullying is a long-standing social problem. Under the multifaceted role represented by adolescent restlessness, middle schools have become the hardest hit areas for school bullying. The minor group is the connection point and joint of the family, school and various fields of society, and the origin of social governance. In campus bullying, there are two subjects: the bully and the bullied. These two identities are not fixed among students but are transformed into each other under certain conditions. This article divides the situation of campus bullying into two aspects: injury situation and subjective bullying tendency, and uses the structural equation model to explore the impact of different factors such as students' self-identity, family happiness, sense of belonging on campus, campus and surrounding environment, and overall family environment. The impact of school bullying and the internal relationship among various factors. Combined with the results of empirical analysis, this article puts forward relevant suggestions for preventing school bullying for the three main subjects of family, school and society.

# Keywords

Middle School Students; Campus Bullying; Structural Equation Model.

#### 1. Introduction

With the hot airing of the film "Youth in Youth", the issue of campus bullying has attracted widespread attention from all walks of life. In the "Two Sessions" in 2020, the issue of campus bullying has once again become a hot topic discussed by many representatives. As a converter that connects the family and the various fields of society, the school carries the historical responsibility of connecting the whole country and society, and can be continued healthily. The importance of improving the management level of all aspects is self-evident. In recent years, the problem of campus bullying has become more and more serious in certain areas, and new forms of cyber bullying and cold violence have emerged, making campus bullying more concealed and persistent. The occurrence of campus bullying has the characteristics of coexistence of universality and particularity. The universality is manifested in the existence of campus bullying in various levels of schools, while the particularity is manifested in the differences in the severity and causes of campus bullying in different schools.

# 2. Introduction and Summary

So far, there is no uniform and complete definition text for campus bullying in the world. The "Notice on Carrying out Special Management of Campus Bullying" issued by the Office of the Education Supervision Committee of the State Council in 2016 defines campus bullying as: where students deliberately or maliciously carry out bullying or insults and cause harm through physical, language, or online methods. event. With the development of the times, campus bullying behaviors have undergone diversified and socialized changes. Bullying not only occurs in classrooms, dormitories and other on-campus places, but also in extracurricular

activities, school trips, and other off-campus places. Many new forms of campus bullying such as slander and group isolation (Hu Xueliang, 2018). Therefore, in recent years of research, some researchers have divided campus bullying into traditional bullying and cyber bullying (Zhang Shanshan et al., 2020). By comparing the effects of traditional bullying and cyber bullying on mental health, Yang Bin et al. (2020) believe that cyber bullying is only an extension of traditional bullying and rarely exists alone. Lin Shaozhen et al. (2018) analyzed multiple characteristics from the perspective of social support, and found that the current school bullying problem of middle school students is serious, diverse, and methods are upgraded. Among them, the network characteristics are the most obvious, which is different from Yang Bin's views. The main reason lies in the research perspective. The impact of campus bullying on students is serious and continuous. Chen Yihua et al. (2019) used a multi-level intermediary model to demonstrate that campus bullying has a negative impact on students' core literacy; Cao Xiaolan et al. (2019) used multiple linear regression analysis to demonstrate the experience The depression produced by school bullying children affects their quality of life.

The occurrence of campus bullying is affected by many factors. Wang Huaqiang (2018) summarized from four aspects: personal age, negative emotions; bad family atmosphere and autocratic parenting mode; lack of school moral education, imperfect prevention and handling mechanism; bad social atmosphere and lack of law and morality. Causes of bullying in schools. As an indicator of students' satisfaction with the school, the sense of belonging of a school plays an intermediary effect between teacher support and campus bullying (Guo Jungiao and Zhao Bihua, 2019), and together with life satisfaction, it plays an intermediary role between campus bullying and student literacy The family environment, school atmosphere and social atmosphere serve as the "shadow promoters" of bullying in schools (Chen Chunjin and Zhi Tingjin, 2017). Huang Liang and Zhao Decheng (2018) compared the PISA test of four provinces (cities) with OCEC national data, and pointed out that the difference in family socioeconomic and cultural status and the average socioeconomic and cultural level of the school caused inequality in the bullying of students, These inequalities are much higher than the average level of OECD country data. From the perspective of ecosystem theory, Sun Zijian et al. (2018) pointed out the micro-system (family atmosphere, school environment, peer relationship), intermediate system (represented by the interaction between school and family), and external system (mass media, parents' work) in their research. The influence of environment, community environment) and macro system (ideology and cultural beliefs) on the factors that affect campus bullying. Zou Hongjun (2019) summarized the causes of campus bullying from the three aspects of social roots, psychological attribution and educational review by summarizing the relevant literature of campus bullying.

As a social problem, school bullying spreads from middle school students to other relevant social groups. Therefore, many scholars choose different samples or analyze and elaborate on this based on different theoretical foundations. Based on the social control theory, there is a significant negative correlation between the four dimensions of emotional attachment, personal dedication, activity involvement, and value beliefs and campus bullying, which can effectively inhibit the occurrence of campus bullying (Zhang Guirong and Zheng Zewei, 2018; Li Ling et al. 2018). From the perspective of social ecology, Sun Feng and Qiangxia (2020) used logistic regression and structural equation models to compare the impact of students' family members, parental education methods, peer relationships and other factors on campus bullying, and demonstrated individual factors. It is the main variable that affects the occurrence of campus bullying, and other related factors cause different levels of influence. Individuals are both the occurrence and recipient of bullying behavior. Yang Mengsi et al. (2019) used logistic regression analysis to classify students who have experienced campus bullying into three categories: pure bullying, pure bullying, and bullying-bullied, And explored the formation factors of these three identities, and pointed out the existence of multiple identities and identity

transformation phenomena in the research, but the bystander groups in campus bullying were not involved. In addition, from the perspective of social support theory, insufficient social support and deviant socialization are the main influencing mechanisms for campus bullying, which are specifically manifested in insufficient parental emotional support, lack of synergy in schools, and the alienation of mainstream peers among students. The impact has gradually diverted students from different levels. Bullying students receive insufficient support from the mainstream society, and instead seek to communicate with deviant peers and seek social support from them (Lin Shaozhen et al., 2018).

At present, various departments in the governance of campus bullying in our country still need to further clarify their responsibilities. In legal governance, there are problems such as uniform definition of bullying and limited role of a single rule (Feng Kai and Chen Wenjia, 2020), and a comprehensive governance direction with linkages of various departments is required. In the relevant literature on campus bullying, empirical analysis to verify the impact of various factors on campus bullying is relatively mature, but there are few literatures that integrate the bullying and the bullied to explore the factors affecting the occurrence of bullying. To sum up, this article attempts to quantify the degree of injury and subjective bullying of middle school students, put the two aspects of campus bullying into the same model, and explore the proportions of personal, family, and school factors in the incidence of bullying. Put forward the relevant countermeasures for the prevention of school bullying.

# 3. Research Design

## (1) Investigation plan

Due to the impact of the new crown pneumonia epidemic, the survey adopted a fixed-point distribution of online questionnaires. The survey started in March 2020 and lasted for two months. Middle school students from the five cities of Jinan, Zhoukou, Shenyang, Anqing and Xiamen were selected as samples. Taking advantage of the conditions that all students adopt online teaching, the survey team has distributed 2,000 questionnaires through docking with specific schools. The five cities issued 520, 520, 460, 280, and 240 copies respectively, and received a total of 1,917 valid questionnaires, with an effective rate of 95.85%. The person in charge of the selected schools in each city will randomly sample the same number of students in each class according to their student ID to fill out the questionnaire to ensure the quality of the questionnaire.

## (2) Reliability test

In order to test the overall quality and credibility of the questionnaire, this paper uses SPSS software to test the credibility of the data used in the structural equation model. First, check the overall reliability of all observed variables. The results are shown in Table 1. From the table, it can be seen that the overall Cronbach's Alpha reliability coefficient is 0.864. The reliability of the data is good and the overall reliability is high.

**Table 1.** Overall Reliability Checklist

Cronbach's Alpha		Cronbach's Alpha based on standardized terms	Number of items	Reliability evaluation
	0.864	0.838	39	good

Then use each latent variable as a unit to test the reliability coefficients between the corresponding observed variables. The results are shown in Table 2. The results show that, except for "family happiness" ( $\xi_2$ ), the other latent variables correspond to the observed

variables The inter-reliability is greater than the 0.7 standard, and the internal reliability of the "family happiness" corresponding to the observed variable is also acceptable.

Cronbach's Cronbach's Alpha Based Number of Reliability Latent variable on standardized items items evaluation Alpha 0.901 0.901 9 Injury situation good Subjective bullying 0.911 0.917 6 good tendency Self-identity 0.910 0.911 4 good Family happiness 0.690 5 0.682 Acceptable Campus sense of 0.958 0.958 5 good belonging Family environment 0.748 0.761 5 better The surrounding 5 environment of the 0.803 0.800 good campus

**Table 2.** Reliability analysis table of latent variables

## (3) Validity test

With the help of the structure validity section of the SPSS software factor analysis, the data is tested for structure validity, and the analysis results shown in Table 3 are obtained through the Bartlett sphericity test and the KMO (Kaiser-Meyer-Olkin) test method. As shown in the table, the result of the KMO test is 0.953 greater than 0.5, and the significance level is 0.000, indicating that there is a correlation between the data, which is suitable for factor analysis.

**Table 3.** Overall structure validity analysis table

Sample sufficient Kaiser-Meyer-Olkin metrics	df	sig.
0.953	741	0.000

# 4. Variable Setting

## (1) Setting of endogenous latent variables

The problem of school bullying can be studied from two perspectives: the subjective tendency of the bully and the degree of harm suffered by the bullied person. Bullying tendency is the most direct cause of campus bullying. Some students may have different degrees of bullying tendency toward others for some reasons. Bullying behavior is the external manifestation of the bullying tendency, and the degree of harm is the situation in which the bullying occurs. A direct manifestation of the bully's perspective. This paper establishes two endogenous latent variables, "harm situation"  $(\eta_1)$  and "subjective bullying tendency"  $(\eta_2)$  as the dependent variables of the model, and conducts quantitative research on campus bullying behavior.

## (2) Setting of exogenous latent variables

Campus bullying has long occurred in student groups and is a product of a specific stage in the student's growth process. The learning and living environment at the student stage is dominated by the campus and family. The psychology and behavior habits of the students mainly originate from this, and the other part comes from the self-cultivation and self-identification of the students. Therefore, this article divides the influencing factors into three aspects: individual, family, and school. It is specifically embodied in "self-identity" ( $\xi$ 1), "family happiness" ( $\xi$ 2), "campus belonging" ( $\xi$ 3), "family overall environment" ( $\xi$ 4) and "campus and

surrounding environment" ( $\xi$ 5) On the five exogenous latent variables, these five exogenous latent variables are used as independent variables in the model.

## (3) Setting of endogenous observation changes

Observed variables are data that can be directly obtained from questionnaire surveys as the observation indicators of latent variables. According to the design of the endogenous latent variables "injury situation" and "subjective bullying tendency", this paper compiled the observation index variables that may measure the latent variables. The "injury situation" and "subjective bullying tendency" each contain nine and six items. The observation indicators are shown in Table 4. The questionnaire design uses the Likert five-point scale method, which divides the measurement scale into five levels. For the observed variable of the latent variable "injury situation", this article draws up the questionnaire based on the common forms of bullying and the performance of the injury. A score from 1 to 5 indicates the frequency or degree of injury from low to high; about "subjective bullying" Based on the observational variable of "inclination", this article combines previous studies on students' bullying psychology and draws up a questionnaire based on the bullying mental activities that bullies often have. A score from 1 to 5 indicates the degree of psychological inclination and recognition from low to high. (The variable name and the observation in the path diagram refer to the title number in parentheses)

**Table 4.** Endogenous Latent Variable Observation Index

Latent variable	Latent variable Observed indicator variables				
	Frequency of physical injury from others at school(y11)(Q9.1)				
	Frequency of verbal insults received from others at school(y12)(Q9.2)				
	Frequency of property infringement from others at school(y13)(Q9.3)				
	Frequency of being slandered by classmates at school(y14)(Q9.4)				
	Frequency of being crowded out by classmates in school(y15)(Q9.5)				
Injury situation(η1)	Frequency of being threatened by classmates at school(y16)(Q9.6)				
	The degree of physical harm caused by school bullying experienced(y17)(Q10)				
	The degree of property loss caused by school bullying experienced(y18)(Q11)				
	The psychological harm of school bullying experienced(y19)(Q12)				
	When students are deliberately making things difficult, look for opportunities to retaliate(y21)(Q18.1)				
	When I see a classmate I don't like being bullied, I want to join it(y22)(Q18.2)				
Subjective bullying	When conflicts with classmates want to use foreign aid to win(y23)(Q18.3)				
tendency(η2)	Willing to use extreme means to highlight their sense of existence(y24)(Q18.4)				
	I want to unite with other students to isolate students who have had conflicts with them(y25)(Q18.5)				
	When you think you are being bullied, tell your elders that you can't solve the problem(y26)(Q18.6)				

## (4) Setting of exogenous observation variables

According to the design of exogenous observational variables, this paper has compiled observational index variables that may measure exogenous latent variables. For "self-identity", "family happiness", "campus belonging", "family overall environment", "campus and The five latent variables of the "environmental environment" are also measured using the Likert five-level scale, from 1 to 5 points indicating the degree of conformity with the corresponding

description, 1 means "completely inconsistent", and 2 means "not very consistent". 3 means "general" as an intermediate option, 4 means "relatively consistent", and 5 means "very consistent". The specific observation index variables are shown in Table 5.

**Table 5.** Observational indicators of exogenous latent variables

Table 3. Observational mulcators of exogenous latent variables						
Latent variable	Observed indicator variables					
	Always be able to face what happened positively and optimistically(x11)(Q13.1)					
Self-identity(ξ1)	Always be able to effectively regulate one's own pressure(x12)(Q13.2)					
	Think that one's own value can often be recognized by others(x13)(Q13.3)					
	Full of hope and confidence in their future development(x14)(Q13.4)					
	Can feel the warmth and happiness from one's own family(x21)(Q14.1)					
	Always get encouragement from family(x22)(Q14.2)					
Family happiness(ξ2)	When faced with stress, there is always spiritual support from the family $(x^2)(Q^4.3)$					
	Always try to avoid direct contact with family members(x24)(Q14.4)					
	Think that their parents are too strict in their discipline(x25)(Q14.5)					
	Love your school and class body(x31)(Q15.1)					
	Be proud of being a student of the current school(x32)(Q15.2)					
Campus sense of belonging( $\xi 3$ )	Harmonious relationship with classmates(x33)(Q15.3)					
	Get along well with teachers(x34)(Q15.4)					
	Many good friends among classmates(x35) (Q15.5)					
	Family members often pay attention to and care about their own experience in school(x41)(Q6.1)					
	Parents can immediately fulfill their responsibilities of caring and educating their children $(x42)(Q16.2)$					
Family environment( $\xi 4$ )	Family members are always patient with themselves(x43)(Q16.3)					
	Family members as a whole have a high level of education(x44)(Q16.4)					
	Various conflicts often occur between family members(x45)(Q16.5)					
	Good safety on campus and on the way to and from campus(x51)(Q17.1)					
Compus and surrounding	Fighting incidents often occur in or around the campus(x52)(Q17.2)					
Campus and surrounding environment(ξ5)	School teachers can treat every student equally(x53)(Q17.3)					
environment(53)	People on campus can respect each other(x54)(Q17.4)					
	The school has relatively complete rules and regulations and management system(x55)(Q17.5)					

# 5. Model Establishment and Analysis

## (1) Construction of SEM model

According to the relationship between the latent variables and the observed variables, the initial model of the measurement equation and the structural equation is constructed. The structural equation model can be expressed as:

$$\begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} = \begin{bmatrix} 0 & 0 \\ \beta_{12} & 0 \end{bmatrix} \begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} + \begin{bmatrix} r_{11} & r_{21} & r_{31} & r_{41} & r_{51} \\ r_{12} & r_{22} & r_{32} & r_{42} & r_{52} \end{bmatrix} \begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \\ \xi_4 \\ \xi_5 \end{bmatrix} + \begin{bmatrix} \zeta_1 \\ \zeta_2 \end{bmatrix}$$
(1)

In the formula:  $\zeta_i(i=1,2)$  is the error term of the structural equation;

 $\eta_i(i=1,2)$  is the endogenous latent variable of the structural equation;

 $\beta_{12}$  It is the influence between endogenous latent variables;

 $\xi_i$  (i = 1,2,3,4,5) Is the exogenous latent variable of the structural equation model;

 $r_{ij}$  (i = 1,2,3,4,5; j = 1,2) is the influence of exogenous latent variables on endogenous latent variables;

The endogenous latent variable measurement equation is:

$$Y = \lambda_{\nu} \eta + \varepsilon \tag{2}$$

In the formula: Y is the matrix of representing  $y_{ij}$ , Y is the matrix of representing  $\lambda y_{ij}$ , and  $\eta$  is the matrix of representing  $\eta_i$ ;

 $y_{ij}$  (i = 1,2; j = 1,2,...,9) is the observed variable of the endogenous latent variable;

 $\lambda y_{ij} (i=1,2;j=1,2,...,9)$  is the factor on the endogenous observed variable on the endogenous latent variable

Load factor

 $\epsilon_{ij}$  (i = 1,2; j = 1,2,...,9) is the residual term of the endogenous observed variable

The measurement equation of the exogenous latent variable is:

$$X = \lambda_x \xi + \delta \tag{3}$$

In the formula: X is the matrix of representing  $x_{ij}$ , X is the matrix of representing  $\lambda x_{ij}$ , and  $\xi$  is the matrix of representing  $\xi_i$ ;

 $x_{ij}$  (i = 1,2,...,5; j = 1,2,...,5) Is the observed variable of the exogenous latent variable;

 $\lambda x_{ij} (i=1,2,...,5; j=1,2,...,5)$  is the exogenous observation variable on the endogenous latent variable.

Factor loading factor;

 $\delta_{ij}$  (i=1,2,...,5; j=1,2,...,5) is the residual term of the exogenous observation variable

Use the Amos software to build the model, use the maximum likelihood estimation fitting method, and standardize the path coefficients to obtain the preliminary SEM model path diagram as shown in Figure 1.

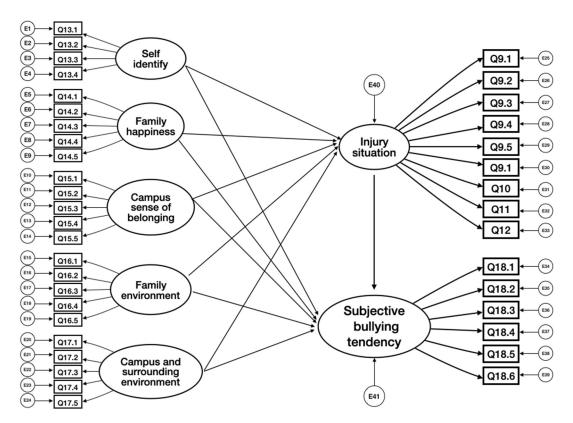


Figure 1. Standardized Estimated SEM Path Diagram

## (2) Evaluation of the overall fit of the initial SEM model

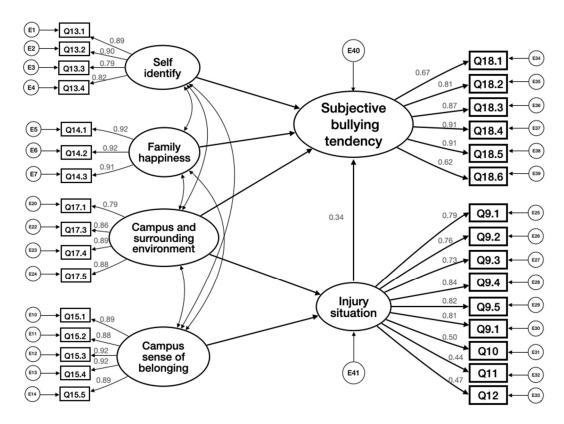
Use Amos software to fit the initial model to get the estimated value of each parameter, and perform the absolute fitting effect, relative fitting effect and substitution test of the fitting results respectively, and obtain the test indicators of  $\chi^2$ /df, CFI, IFI, NFI and RMSEA as shown in Table 6 shown. Since the  $\chi^2$  statistic is greatly affected by the number of samples, the total number of effective samples collected in this survey is 1,917, so it is relatively difficult to achieve the desired effect of  $\chi^2$  and  $\chi^2$ /df. It can be seen from the table that in addition to the  $\chi^2$ /df index, there is also a gap between the other indexes and the fitting standard, and further adjustments to the model are needed.

Table 6. Initial SEM model fitting index

Fitness index	χ²/df	CFI	IFI	NFI	RMSEA
Fitting standard	<5	>0.90	>0.90	>0.90	<0.08
estimated value	15.865	0.841	0.841	0.833	0.088

#### (3) Model revision

According to the factor loading coefficient table of the latent variables of the model, the observation indicators with obvious abnormalities in the latent variables were screened, and the observation variables with abnormal factor loading coefficients were deleted; the path of the correlation between the latent variables was analyzed, and the two endogenous potentials were deleted. Exogenous latent variables that are not significantly affected by the variable; then adjust the MI value in the integrated model, correlate some residual items to enhance the overall fit of the model, and explore the appropriateness of the model according to the actual situation, and get the revised The model path is shown in Figure 2.



**Figure 2.** Path diagram of the adjusted SEM model

Therefore, the structural equation model of the influencing factors of campus bullying can be expressed as:

$$\begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} = \begin{bmatrix} 0 & 0 \\ \beta_{12} & 0 \end{bmatrix} \begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} + \begin{bmatrix} r_{11} & r_{21} & r_{31} & r_{51} \\ r_{12} & r_{22} & r_{32} & r_{52} \end{bmatrix} \begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \\ \xi_5 \end{bmatrix} + \begin{bmatrix} \zeta_1 \\ \zeta_2 \end{bmatrix}$$
(4)

The factors affecting the occurrence of campus bullying were finally determined as four aspects: "self-identity", "family happiness", "campus belonging", "campus and surrounding environment".

# 6. Model Checking

## (1) Overall fit evaluation

According to the execution results shown in Table 7, the overall fitting effect of the revised model is better, the indicators are close to the fitting standard, and the rest of the indicators meet the fitting standard.

**Table 7.** Adjusted SEM model fitting index

Fitness index	$\chi^2/df$	CFI	IFI	NFI	RMSEA
Fitting standard	<5	>0.90	>0.90	>0.90	<0.08
estimated value	5.697	0.963	0.963	0.955	0.050

#### (2) Confirmatory factor analysis

Perform confirmatory factor analysis on the latent variables of the adjusted model, select the combined reliability ( $\rho_c$ ) and the average variance extraction (AVE) as the test indicators to test

the internal consistency between the model latent variables and the observed variables and the convergence validity of the model, The test results are shown in Table 8.

**Table 8.** Confirmatory factor analysis test table for latent variables

Latent variable	Number of indicators	Combination reliability( $ ho_c$ )	Average variance extraction(AVE)
Self-identity(ξ1)	4	0.912	0.723
Family happiness (ξ2)	3	0.940	0.840
Campus sense of belonging(ξ3)	5	0.957	0.815
Campus and surrounding environment(ξ5)	4	0.916	0.732
Injury situation(η1)	9	0.893	0.493
Subjective bullying tendency(η1)	6	0.916	0.651

According to the content of the table, the combined reliability of the latent variables all meet the standard greater than 0.6, which proves that the internal consistency of the latent variables of the model is good; the average variance extraction of the "injury situation" is close to the 0.5 standard, and the rest are all higher than the 0.5 standard. The internal convergent validity of the latent variables is good, the internal consistency is high, and the internal quality of the model is good. The main reason for the low average variance extraction of the "Injury Situation" indicator is that it contains 9 different observational indicators, which are measured from the two perspectives of the frequency of bullying and the degree of injury. The coefficient is generally higher than the load coefficient of "degree of injury", indicating that "frequency of bullying" can more intuitively reflect the injury situation in campus bullying.

#### (3) Correlation test

Perform correlation analysis on each latent variable of the model, and get the correlation coefficient matrix shown in Table 9. The correlation coefficient matrix can react more intuitively to the relationship of various latent variables. The exogenous latent variables in the model have a significant correlation with the endogenous latent variables. At the same time, the exogenous latent variables all have a negative and significant impact on the endogenous latent variables, and all the exogenous latent variables show a positive correlation.

**Table 9.** Correlation coefficient table among latent variables

	Self-identity	Family happiness	Campus sense of belonging	Campus and surrounding environment	Injury situation	Subjective bullying tendency
Self-identity	1					
Family happiness	0.703***	1				
Campus sense of belonging	0.730***	0.767***	1			
Campus and surrounding environment	0.686***	0.669***	0.804***	1		
Injury situation	-0.286	-0.286	-0.353**	-0.388***	1	
Subjective bullying tendency	-0.168***	-0.249***	-0.250	-0.277***	0.397***	1

<sup>\*\*</sup> P is bilaterally correlated at 0.01 level;\*\*\* P is bilaterally correlated at 0.001 level.

# 7. Empirical Results and Research Conclusions

In the structural equation model, the influence of self-identity on subjective bullying tendency is 0.12, which proves that for every unit of self-identity increase, students' bullying tendency will increase by 0.12 units. Self-identity is also the only latent variable that has a positive impact among the four exogenous latent variables, which shows that self-identity will transform into a self-conceited mentality of personal superiority under certain conditions, which will lead to subjective bullying tendencies.

Except for self-identity, the other exogenous latent variables have negative effects on the endogenous latent variables. The campus and the surrounding environment have the greatest impact on the injury situation. Each improvement in a unit reduces the injury of students from campus bullying by 0.29 units; the impact of campus belonging on the injury situation is -0.12, which proves that the students' sense of belonging on campus increases by one. Units, their injuries from campus bullying decreased by 0.12 units. The impact of family well-being and campus and surrounding environment on subjective bullying tendencies were -0.15 and -0.12, respectively, indicating that for every unit increase in family well-being and campus surrounding environment, students' subjective bullying tendencies would decrease by 0.15 units and 0.12 units, respectively. The results show that the improvement of students' subjective emotions and the improvement of the objective environment can help reduce the incidence of school bullying, whether from the perspective of bullying or being bullied.

Comprehensive model empirical analysis results, and the following conclusions are obtained:

(1) The various factors that affect campus bullying have a significant positive correlation within each

Self-identity, family happiness, sense of belonging on campus, campus and its surrounding environment are the influencing factors, and they play a mutually promoting role. Self-identity means self-confidence. It helps students' sense of family happiness and campus belonging. The school and surrounding environment are objective factors, and its condition will have a greater impact on students' subjective psychology, so a good campus environment is to improve The cornerstone of students' self-identity and sense of belonging on campus. At the same time, the sense of happiness from the family and the sense of belonging from the campus are also important guarantees for students to build self-confidence and realize their self-worth.

(2) Various factors have a significant negative correlation with the occurrence of campus bullying

Self-identity, family well-being, sense of belonging on campus, and the surrounding environment on campus have a negative impact on the occurrence of bullying. Whether from the perspective of bullying or being bullied, the above factors are negatively related to the occurrence of bullying. Students with a strong sense of self-identity seldom have inferiority complex, so the probability of being bullied on campus is lower, and there is no need to highlight their own value through extreme behaviors such as bullying others. A warm and happy family builds self-confidence for students, and a harmonious and orderly campus environment enhances students' sense of ownership. These factors can fundamentally reduce students' tendency to bully others and curb campus bullying from the source.

(3) There is a significant positive correlation between the bullying tendency in school bullying and the situation of being bullied

The direct source of school bullying is the subjective tendency of bullying, and the occurrence of bullying is a realistic response to the tendency of bullying. Many bullying tendencies are not derived from other external factors, but from school bullying itself. After being bullied on campus, some people who have been bullied have not been properly dealt with. Their emotions and grievances can only be buried in their hearts. Over time, they will have extreme vengeance

and form a subjective tendency to bully, and then change from being bullied to bullying. This change is often due to the fact that the bullied students did not communicate with their teachers or parents in time, or did not really solve the problem after communication, thereby reducing their trust in their elders. They believe that it will not help to ask them for help after being bullied, so their psychology may become inferior or inferior. Violence develops in two extreme directions.

## (4) Self-identity is a double-edged sword

The correlation coefficient between self-identity and subjective bullying tendency is negative, which proves that if only two variables are considered, there is a negative correlation between the two; but if self-identity is considered comprehensively with other influencing factors, self-identity is negative Subjective bullying tendencies show promotion. According to the comprehensive analysis of empirical results and realistic factors, self-identity is relatively unstable compared with other factors. It can not only build up students' self-confidence and protect them from campus bullying; it will also trigger students' sense of self-superiority and form students. The subjective tendency of bullying has prompted him to become a bully, both of which are more common in reality. Based on the results of the previous analysis and the relative instability of self-identity, we can see that it is very important to correctly cultivate students' sense of self-identity.

## 8. Opinions and Suggestions

The causes of campus bullying are complex, and the objective environment, subjective emotions, injury situation, and bullying tendencies interact with each other. This article will simplify the interaction of these four factors. Any link is the starting point, and positive improvement will play a role in promoting other links. , Constitute a virtuous circle, and vice versa is a vicious circle.

(1) Parents strengthen communication with their children to cultivate their subjective emotions

Compared with the objective environment, students' subjective emotions are easier to grasp. Parents should pay attention to the correct establishment of children's self-confidence in the process of cultivating children, and at the same time change the educational concept to the direction of listening and equality, thereby increasing the children's family happiness. A sufficient sense of family happiness and security can promote children to open up and communicate with their parents. Parents can use this to understand their children's psychological state at school, and solve problems as soon as possible to avoid greater harm, thus forming a virtuous circle of resistance to school bullying.

(2) The school strengthens management and takes into account the organic combination of "teaching" and "education"

While imparting knowledge, schools must also take into account the guidance of correct values for students, to achieve an organic combination of "teaching" and "education", imparting knowledge can enable students to go further, and establishing correct values can make students more stable. Schools can regularly hold campus bullying simulation sitcoms and other related activities to popularize the harm that campus bullying causes to themselves and others, so that students can protect themselves from bullying to the greatest extent on the premise that they do not become bullies. As the most important place where campus bullying occurs, schools should adopt multiple management methods, play their specific legal roles, and deter bullying behaviors with strict and complete management mechanisms, so as to build a harmonious campus and surrounding environment.

(3) The society uses the advantages of UMF to establish a special governance platform for campus bullying

The solution to the problem of school bullying should be based on society. Only relying on the strength of the family and the school can only solve the problem within a limited range, and cannot fundamentally curb the occurrence of school bullying. In the overall work of social governance, society should exert its scale effect and linkage effect, build a special platform related to campus bullying, and regularly exchange the status and solutions of middle school students' campus bullying issues through modes of school-school cooperation and home-school cooperation. In view of the concealment and diversification of the current forms of campus bullying, the platform can detect students with serious subjective bullying tendencies and who may be threatened by campus bullying through regular investigations of students' mental health, and then cooperate with relevant departments to adopt measures Active measures such as conversation, education, and communication minimize the harm caused by campus bullying to students.

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