Social Cognition and Emotional Response to Bullying among College Students

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Abstract: The negative impact of bullying is very serious, has aroused more and more people's attention. There is a growing body of investigation on bullying. To 245 college students on campus bullying and cyberbullying mental reaction using the existing scale of comparison. Participants' social cognitive and emotional responses to bullying, such as empathy for the victim, outcome expectations, responsibility, moral disengagement, and defender self-efficacy, were important for behavioral responses. The questionnaire covers the five Social Cognitive and Emotional responses (SCARB) to bullying in a college campus setting, and also covers the same content in cyberbullying. The results found that cyberbullying and school bullying differ in terms of empathy and moral escape. There was no significant difference in other aspects. At the same time, this exploration focuses on the social cognitive and emotional responses of college students to campus bullying and cyber bullying based on their gender and whether they are class leaders. According to the study, gender differences did not have a significant impact on attitudes toward bullying in schools, but did have an impact on attitudes toward cyberbullying. In the school bullying situation, class cadres scored higher than non-class cadres in moral disagreement, defensive self-efficacy and negative outcome expectation. This article also makes a comparison between bullying on campus and bullying on the Internet. The exploration adds to new evidence of the effects of bullying.

Keywords: school bullying, empathy, bystander intervention model, class leader cyberbullying

1. Introduction

1.1. Definition of Bullying and Cyberbullying

Bullying is a specific form of aggression, characterized by frequent occurrence and unequal distribution of power [1,2]. Bullies may derive their power from physical strength, eloquent skills, or a high status [3]. Various sorts of bullying are implied by these various sources of power: There are three types of bullying: Relational bullying is spreading rumors about the victim or marginalizing the victim [4]. Direct verbal bullying is insulting to the victim. Physical bullying is the destruction of the victim's property or causing physical harm to the victim.

Cyberbullying is rooted in the power imbalance between the Internet and the users of new technological skills that have developed. Cyberbullying is all done electronically and digitally. On this basis, cyberbullying can be defined as a deliberate means of harassing a specific individual [4]. In addition, cyberbullying is thought to significantly increase the risk of suicide for victims [5]. On the other hand, anonymity is thought to be an important factor in cyberbullying [6].

However, important nuances must be taken into account when extending the notion of school bullying to cyberbullying: Frist, recurrence due to violent acts and offensive discourse. Second, victim's lack of power, technical factors, and analyzing power imbalance. Third, unfavorable internet interactions can happen anywhere, anytime. Forth, defamatory material spreads quickly and is difficult to remove. Fifth, perpetrator's anonymity exacerbates victims' powerlessness [7].

1.2. Bystander Behaviors in School Bullying and Cyberbullying

Bystanders in cyberbullying differ in importance and concept from traditional bullying. When bystanders see faces with sad expressions, they can change their behavior and not support cyberbullying [8]. However, as the victim's face expression is rarely visible on internet platform this is very different from what actually occurs there. There is evidence that there are no discernible variations between the sexes when it comes to the role of bystanders and sex, however other investigation supports the idea that adolescent women exhibit more supportive behaviors toward the victim than men do [9].

For the uninvolved, heterogeneous findings were found. According to a meta-analysis of child and adolescent participants, moral disengagement is a significant predictor of aggressive behavior, particularly bullying and cyberbullying [9]. Moral disengagement plays a positive role in assisting and reinforcing this supportive bullying behavior in school bullying. Defender behavior is negatively correlated with moral disengagement. Moreover, the moral disengagement process reduces the willingness to stop cyberbullying. The relationship between moral disengagement and passive bystander behavior has been the subject of conflicting investigation results, which may be related to the heterogeneity of the passive bystander population [10].

Social self-efficacy, and particularly defender self-efficacy, distinguishes between active spectators and defenders [10]. Passivity is associated with conflicting expectations and values. Positive results expected, such as stop bullying or comfort victims, and strengthen the negative correlation, and defense are related [11].

The lack of support for the victim is frequently cited as being due to negative consequence expectancies, such as the fear of being bullied [12].

According to current research, spectator behaviors in bullying situations can be significantly influenced by empathy, moral disengagement, emotions of responsibility, self-efficacy, and result expectations. However, less is known about potential distinctions between cyberbullying and school bullying in terms of these social-cognitive and affective responses.

2. Method

2.1. Data Collection

This questionnaire was released through the Internet, 174 people submitted by Wechat, 66 people submitted by QQ, 2 people clicked the link to participate in the answer. Before the start of the questionnaire, participants were told the questionnaire is anonymous, the questionnaire is to know the participants for the purpose of bullying social cognitive and emotional reactions. The questionnaire was divided into: the first page was whether the participants are college students, whether they are class leaders, gender selection, and participants' social cognitive and emotional responses to campus bullying, and the second page was about participants' social cognitive and

emotional responses to cyberbullying. The SCARB included 48 equivalent items for each section, all of which began with the phrase "When I notice someone being bullied at school" or "When I notice someone being bullied on the internet," as appropriate. Participants rated how frequently they replied in a particular way: never = 0, occasionally = 1, generally = 2, always = 3.
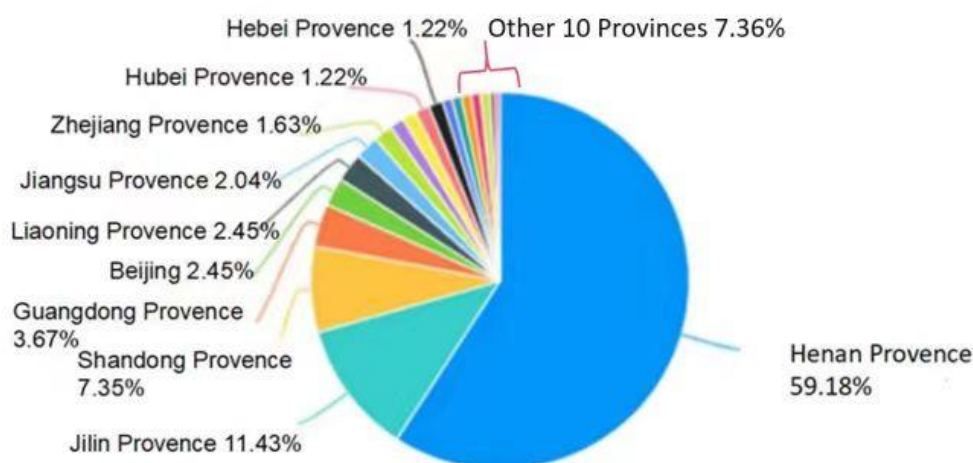

Figure 1: Geographical distribution of participants in China.

According to the data and variables used in this study, the questionnaire randomly sampled college students from 20 provinces in China. Since the population of these 20 provinces accounts for about 88% of the total population of the country, this survey can be regarded as a representative sample of China, reflecting the social cognitive and emotional responses of Chinese college students to bullying. Most of the participants came from Henan province, accounting for 59.18 percent, followed by Jilin Province with 11.43 percent and Shandong Province with 7.35 percent(see Fig 1).

2.2. Data Analysis

According to the characteristics of the data, this analysis mainly adopts independent sample t test and normality test. The main variables were set as situational differences between campus bullying and cyber bullying, gender, and whether they were class leaders.

2.3. Goal and Hypotheses of the Present Study

Based on the experimental results of the same questionnaire, this paper hypothesizes that social cognitive and emotional responses to bullying differ between school and online environments, assuming the following:

1. The dimensions with higher mean scores in campus bullying than in cyber bullying include empathy, self-defense efficacy, and sense of responsibility.

2. The mean scores of participants in cyberbullying were higher than those in school bullying in the following dimensions: moral disengagement and Negative Outcome Expectations.

Some of these variables, such as moral disengagement, have documented relationships with gender and class leadership. In Chongqing middle school junior students, junior high school girls' school bullying attitude score significantly higher than boys, the class cadre is significantly higher than that of non-class cadres [13]. Therefore, gender and class leader status were added as dependent variables in the regression model.

3. Result

3.1. Participant Group

The spss29 version is used as a frequency analysis step.

Table 1: Variable analysis of college student participants.

	Options	Frequency	Percent	Mean value	Standard deviation
In school or graduated	at school	212	86.50%	1.13	0.34
	graduated	33	13.50%		
Gender	male	54	22.00%	1.78	0.42
	female	191	78.00%		
Whether to serve as class leader	yes	81	33.10%	1.67	0.47
	no	164	66.90%		

According to Table 1, the numerical characteristics of the variables of the participants in this questionnaire survey reflect the distribution of the survey objects. The performance of the central tendency is the mean. Volatility is represented by standard deviation.

The data distribution basically meets the requirements of random sampling survey. In the gender dimension, for example, the proportion of men is 22%. For women, the figure was 78 percent. Therefore, the results of this survey mainly represent the wishes of women.

3.2. Reliability and Validity Test

The spss29 version is used as the confidence analysis step.

Table 2: Reliability statistics.

Klonbach Alpha	Klonbach based on standardized terms Alpha	Number of terms
0.932	0.934	46

As shown in Table 2, 0.924 is the Klonbach coefficient after standardization. This shows that the questionnaire is very effective and its overall reliability is high.

3.3. Validity Analysis

The validity analysis was obtained after the questionnaire was processed by spss29 exploratory factor analysis.

Table 3: KMO and Bartlett tests.

KMO sample appropriateness measure		0.911
Bartlett sphericity test	Approximate chi-square	9009.599
	Degree of freedom	1035
	Significance	<.001

The good manifestation of the validity of the questionnaire is that the closer the coefficient of KMO test is to 1, the better. According to Table 3, 0.918 is the coefficient of KMO test, and the significance of sphericity test is close to 0. Therefore, the null hypothesis is rejected.

3.4. Independent Samplet Test

Table 4: Analysis of variables in different bullying scenarios.

	Bullying scene	Mean value	Standard deviation	t	P	Cohen's d value
E	school	13.322	3.946	2.338	0.020**	0.211
	cyber	12.437	4.425			
MD	school	7.824	5.107	-2.024	0.043**	0.183
	cyber	8.776	5.291			
R	school	5.596	2.304	1.781	0.076*	0.161
	cyber	5.216	2.414			
DSE	school	4.461	2.147	-0.103	0.918	0.009
	cyber	4.482	2.23			
NOE	school	3.967	2.533	1.19	0.235	0.107
	cyber	3.698	2.479			

Note: E=empathy、MR=moral disagreement、R=responsibility、DSF=defender self-efficacy、NOE=negative outcome expectations

According to the T-test results of the above independent samples, the P-value of the level significance of the variable is 0.020** (see Table 4). So the results significantly. This suggests significant differences in empathy between students facing bullying and cyberbullying. Margin Cohen 's d value of 0.211. Small, medium and large tipping point 0.20, 0.50, 0.80, respectively. Margin is small. The mean value of Empathy for campus bullying and cyberbullying is 13.32/12.437, indicating that empathy for cyberbullying is weaker than empathy for school bullying. The mean value of responsibility for campus bullying and cyberbullying is 5.596/5.216. This suggests that moral disagreement in the network more clearly than in the university. 0.043** is the P-value of the significance result. The statistical results are significant. It shows that there are significant differences in moral disagreement between campus bullying and cyber bullying. Cohen's d value is 0.183, which is very small.

However, Defender Self-Efficacy, Responsibility and Negative Outcome Expectations did not have statistically significant differences in bullying scenarios, because the significance of 0.076, 0.918 and 0.235 was greater than that of standard 0.05. So we can't reject the null hypothesis.

The author used spss29 version to implement the data analysis.

Table 5: Gender differences in all dimensions.

		gender	N	Mean value	Standard deviation	t	sig
School Bullyling	E	male	54	13.06	4.66	-0.562	0.575
		female	191	13.4	3.73		
	MD	male	54	8.63	6.694	1.066	0.29
		female	191	7.6	4.556		
	R	male	54	5.3	2.833	-0.926	0.358
		female	191	5.68	2.132		
	DSF	male	54	4.57	2.661	0.372	0.711
		female	191	4.43	1.985		
	NOE	male	54	4.35	2.915	1.138	0.259
		female	191	3.86	2.412		
cyberbullying	E	male	54	11.67	5.266	-1.43	0.148
		female	191	12.65	4.147		
	MD	male	54	10.48	6.336	2.35	0.022
		female	191	8.29	4.867		
	R	male	54	5.33	2.795	0.403	0.687
		female	191	5.18	2.302		
	DSF	male	54	5.04	2.577	2.087	0.038
		female	191	4.32	2.102		
	NOE	male	54	4.41	2.891	2.128	0.037
		female	191	3.5	2.319		

Note: E=empathy、MR=moral disagreement、R=responsibility、DSF=defender self-efficacy、NOE=negative outcome expectations

According to the T-test results of the above independent samples, the paper concludes that in the campus bullying scene, The significance test value of students' psychological difference variable level was greater than 0.05 (see Table 5). Illustrate different gender college students on campus bullying social cognitive and emotional response there is no difference. In circumstances of cyber-bullying, moral disagreement between gender difference is 0.022, significantly less than 0.05. It shows that there are differences in moral disagreement between genders. According to the mean, women scored slightly lower than men in all dimensions except empathy. Similarly, Defender Self-Efficacy and Negative Outcome Expectations have significant differences in gender. However, there was no statistically significant difference between empathy and responsibility by gender. Because of the significant greater than standard 0.05 0.148 and 0.687. The null hypothesis cannot be rejected.

Table 6: The difference analysis of each dimension in class cadre.

	class cadre or not	N	Mean value	Standard deviation	Mean standard error	t	sig
E(S)	yes	81	13.69	3.872	0.43	1.029	0.305
	no	164	13.14	3.981	0.311		
MD(S)	yes	81	9.2	6.388	0.71	2.624	0.01
	no	164	7.15	4.196	0.328		

Table 6: (continued).

R（S）	yes	81	5.91	2.378	0.264	1.521	0.13
	no	164	5.44	2.257	0.176		
DSE（S）	yes	81	5.2	2.222	0.247	3.879	<.001
	no	164	4.1	2.019	0.158		
NOE(S)	yes	81	4.43	2.757	0.306	2.031	0.043
	no	164	3.74	2.391	0.187		
E（C）	yes	81	12.86	4.412	0.49	1.063	0.289
	no	164	12.23	4.43	0.346		
MD(C)	yes	81	9.9	6.086	0.676	2.362	0.019
	no	164	8.22	4.773	0.373		
R（C）	yes	81	5.52	2.511	0.279	1.38	0.169
	no	164	5.07	2.358	0.184		
DSE（C）	yes	81	4.79	2.391	0.266	1.526	0.128
	no	164	4.33	2.137	0.167		
NOE(C）	yes	81	3.98	2.784	0.309	1.232	0.219
	no	164	3.56	2.311	0.18		

Note: E=empathy、MR=moral disagreement、R=responsibility、DSF=defender self-efficacy、NOE=negative outcome expectations、S=school bullying、C=cyberbullying

According to Table 6, the independent sample T-test results in the campus bullying scenario, significance test value of students' psychological difference variable level in the two dimensions of compassion and responsibility is greater than 0.05. The null hypothesis cannot be rejected. In the campus bullying scene, the significance test values of students' psychological difference variables in moral disagreement, Defender Self-Efficacy and Negative Outcome Expectations were all less than 0.05. It shows that there are differences in these three dimensions, and the score of class cadres is greater than that of non-class cadres. In the context of cyberbullying, the significance test value of the variable level of students' psychological difference in moral disagreement is less than 0.05, indicating that there are differences in the dimension of moral disagreement between class cadres and non-class cadres, and the score of class cadres is higher than that of non-class cadres. In cyber bullying, the significance test values of other dimensions are greater than 0.05. The null hypothesis cannot be rejected.

3.5. Correlation Analysis

Table 7: Pearson correlation of five dimensions in different scenarios.

	E(S)	E(C)	MD(S)	MD(C).	R(S)	R(C)	DSE(S)	DSE(C)	NOE(S)	NOE(C)
E(S)	1									
E(C)	.749**	1								
MD(S)	0.037	0.009	1							
MD(C)	-0.037	-0.037	.695**	1						

Table 7: (continued).

R(S)	.603**	.645**	-0.055	-.136*	1					
R(C)	.598**	.693**	0.002	0.023	.659**	1				
DSE(C)	.424**	.556**	.128*	.186**	.474**	.753**	1			
DSE(S)	.432**	.533**	.157*	0.080	.634**	.533**	.658**	1		
NOE(S)	.210**	.178**	.427**	.410**	0.114	.153*	0.106	0.064	1	
NOE(C)	.145*	0.122	.368**	.483**	0.073	.182**	.183**	0.097	.618**	1

Note1: **. At level 0.01 (double-tailed), *. At level 0.05 (double-tailed), the correlation was significant.
Note2:E=empathy、MR=moral disagreement、R=responsibility、DSF=defender self-efficacy、NOE=negative outcome expectations、S=school bullying、C=cyberbullying

Correlation analysis is the most useful analysis method in correlation research. SPSS29 version is used to conduct the time analysis process of correlation analysis plate. Among them, the school bullying and under the network bullying empathy and school bullying was associated with a significant sense of responsibility existence under the network bullying. And the correlation coefficient is greater than 0, the two are positively correlated. Similarly, empathy under school bullying and cyber bullying is significantly correlated with defender self-efficacy under school bullying and cyber bullying, and the correlation coefficient is greater than 0, indicating a positive correlation. Moral disagreement under school bullying and cyber bullying has no significant correlation with empathy under school bullying and cyber bullying, but it has a significant correlation with defender self-efficacy, and the correlation coefficient is greater than 0, indicating a positive correlation (see Table 7).

4. Discussion

Studies of social cognition and emotional responses are rare on the bystander during the intervention. No bullying and cyberbullying compares the psychological reaction of research. This investigation adopts the questionnaire available to bullying of five kinds of social cognitive and emotional responses (SCARB) for evaluation. The author made a preliminary comparison between the two kinds of bullying behaviors in the questionnaire.

In the exploration of Kozubal et al., there is no significant difference between the sexes for cyberbullying bystanders, and this exploration rejects this argument [8]. Moral disengagement from school bullying is negatively correlated with Defender behavior, while in the cyberbullying, moral disengagement is positively correlated with defender Self-Efficacy [10]. This may be because it is easier to have Defender Self-Efficacy only on the level of thinking because you do not engage in actual defensive behavior.

In the exploration of Jiang on campus bullying, class leaders in junior high school scored significantly higher than non-class leaders in three aspects, including empathy, consequence prediction and behavior implementation [13]. However, in this exploration on college students, class leaders showed a higher moral escape and negative outcome expectations. Whether as a class cadre there was no significant difference in responsibility, also in terms of empathy. Due to the needs of social interaction and interests, they may not want to provide more effective help for victims, so they have higher moral escape. It is suggested to strengthen the education and training of the moral sense of campus bullying for the class cadres of college students. This may be because college students face

more complex interpersonal communication, class cadres do not distinguish between common bad relations and campus bullying, and class cadres assume that college students as adults have a certain ability to protect themselves, it is impossible for class cadres to use tough means like Leviathan's guardians to completely stifle the occurrence of campus bullying. At the same time, due to the interest relationship such as scholarship evaluation in China, class leaders are reluctant to offend the bully, so they also score higher in negative outcome expectations.

Of course, there are some limitations in this paper. For example, it does not investigate whether participants have witnessed campus bullying. In a previous study, most of the students claimed that they had or would advocate for victims, a trend that was more pronounced among students who had not witnessed bullying [14]. This suggests that witnessing bullying has an impact on participants' performance.

The practical implications of these findings remain to be tested. Poor was relatively small, representative sample. The data was 22 per cent for men and 78 per cent for women, respectively, and the results skewed towards girls. More than half of the participants were from Henan Province with a certain regional bias. Cross-validation of the measured structure is required. Larger samples involving a wider age range should be replicated by future researchers to report the findings. Future research should consider other possible causes of bullying, such as participants' grade level, age, students' experiences with bullying in school (bully or victim), or participants' degree of manipulation of digital social media.

5. Conclusions

In this study, the authors found that participants had stronger empathy in the school bullying scene than in the cyber bullying scene, and moral escape was weaker in the school bullying scene than in the cyber bullying scene.

According to the study, gender differences did not have a significant impact on attitudes toward bullying in schools, but did have an impact on attitudes toward cyberbullying, with men scoring higher than women on moral disagreement, defender self-efficacy, and negative outcome expectations. In terms of whether or not to serve as class leaders, class leaders have a stronger moral escape in cyberbullying scenarios. In the school bullying situation, class cadres scored higher than non-class cadres in moral disagreement, negative outcome expectation and defensive self-efficacy.

This exploration fills a gap in relevant research on the comparison of Chinese college students' attitudes toward campus bullying and cyber bullying, which is conducive to the prevention of bullying on college campuses and the training and selection of class cadres.

References

[1] Smith, P. K., Cowie, H., Olafsson, R. F., & Liefooghe, A. P. D. (2002) Definitions of bullying: A comparison of terms used, and age and gender differences, in a fourteen-country international comparison. Child Development, 73, 1119–1133. https://doi.org/10.1111/1467-8624.00461.
[2] Olweus, D. (1993) Bullying at school: What we know and what we can do. Oxford: Blackwell.
[3] van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2015) Empathy and involvement in bullying in children and adolescents: A systematic review. Journal of Youth and Adolescence, 44, 637–657. https://doi.org/10.1007/s10964-014-0135-6.
[4] Olweus, D., and Limber, S. P. (2018) Some problems with cyberbullying research. Curr. Opin. Psychol. 19, 139–143. doi: 10.1016/j.copsyc.2017.04.012.
[5] Kim, J., Walsh, E., Pike, K., and Thompson, E. A. (2020). Cyberbullying and victimization and youth suicide risk: the buffering effects of school connectedness. J. School Nurs. 36, 251–257. doi: 10.1177/1059840518824395.
[6] Barlett, C. P., Heath, J. B., Madison, C. S., DeWitt, C. C., and Kirkpatrick, S. M. (2020) You're not anonymous online: The development and validation of anew cyberbullying intervention curriculum. Psychol. Popular Media 9, 135–144.doi: 10.1037/ppm0000226.

[7]   Dooley, J. J., Pyżalski, J., & Cross, D. (2019) Cyberbullying versus face-to-face bullying. Zeitschrift Für Psychologie, 217, 182–188. https://doi.org/10.1027/0044-3409.217.4.182.

[8]   Kozubal, M., Szuster, A., and Barlinska, J. (2019) Cyber bystanders, ´affective empathy and social norms. Stud. Psychol. 61, 120–131.doi: 10.21909/sp.2019.02.777.

[9]   Gini, G., Pozzoli, T., & Hymel, S. (2014) Moral disengagement among children and youth: A meta-analytic review of links to aggressive behavior. Aggressive Behavior, 40, 56–68. https://doi.org/10.1002/ab.21502.

[10] Thornberg, R., Wänström, L., Hong, J. S., & Espelage, D. L. (2017) Classroom relationship qualities and social-cognitive correlates of defending and passive bystanding in school bullying in Sweden: A multilevel analysis. Journal of School Psychology, 63, 49–62. https://doi.org/10.1016/j.jsp.2017.03.002.

[11] Pöyhönen, V., Juvonen, J., & Salmivalli, C. (2012) Standing up for the victim, siding with the bully or standing by? Bystander responses in bullying situations. Social Development, 21, 722–741. https://doi.org/10.1111/j.1467-9507.2012.00662.x.

[12] van Cleemput, K., Vandebosch, H., & Pabian, S. (2014) Personal characteristics and contextual factors that determine "helping," "joining in," and "doing nothing" when witnessing cyberbullying. Aggressive Behavior, 40,383–396.https://doi.org/10.1002/ab.21534.

[13] Yilin,J. (2018) Master dissertation. Study on bullying attitude, current situation investigation and intervention of junior high school students[D]. Chongqing: Chongqing Normal University.

[14] Álvarez-García, D., Thornberg, R., & Suárez-García, Z. (2021) Validation of a Scale for Assessing Bystander Responses in Bullying. Psicothema, 33(4), 623–630. https://doi.org/10.7334/psicothema2021.140.