

Original Research Article

Correlation between bullying involvement and behavioral problems among adolescents

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ABSTRACT

Background: Bullying is one of the common problems among adolescents. This study assessed the correlation between bullying involvement and behavioral problems among adolescents at selected schools of Dehradun, Uttarakhand.

Methods: A quantitative correlational study was undertaken at selected school of Dehradun, Uttarakhand to assess the correlation between prevalence of bullying involvement and behavioral problems among 228 adolescents aged 12 to 17 years. The participants completed a self-report PRQ (peer relation questionnaire) to assess bullying involvement and SDQ (self report questionnaire) to assess behavioral problem.

Results: The mean age of participants was 14.86. The prevalence of bullying involvement was 30.2%, from those 28 (9.7%) as bully, 59 (20.5%) as victim and 13 (4.5%) as bully-victim. There was significant correlation between bullying score and total difficulties problem ($r=0.247$); conduct problem ($r=0.398$); hyperactivity problem ($r=0.143$); peer problem ($r=0.204$) and pro-social problem ($r=-0.215$). There was significant correlation between victim score and total difficulties problem ($r=0.309$); emotional problem ($r=0.328$); conduct problem ($r=0.289$); peer problem ($r=0.267$) and pro social problem ($r=-0.197$). There was significant correlation between bully-victim score and total difficulties problem ($r=0.341$); emotional problem ($r=0.258$); conduct problem ($r=0.420$); hyperactivity problem ($r=0.135$); peer problem ($r=0.288$) and pro social problem ($r=-0.250$).

Conclusions: Study showed that there is substantial prevalence of bullying involvement among adolescents. Bullying involvement is correlated to behavioral problem. Our findings can be used to construct school intervention directed toward bullying and behavioral problems.

Keywords: Adolescence, Behavioral problems, Bullying involvement, School

INTRODUCTION

Adolescence refers to the period of transition from childhood to adulthood. Historically, adolescence age group is a spans from 12 to 18 years, which is corresponds to the time from pubertal onset (i.e., specific hormonal changes) to guardian independence (i.e., the legal definition of “adulthood” in many countries).¹

Bullying is one among the foremost common violence among young population at school years. Research on bullying started quite forty years ago, when the

phenomenon was defined as ‘aggressive, intentional acts administered by a gaggle or an individual repeatedly against a victim who is not able to defend him or herself’.²

The most frequently used definition of bullying was developed by Daniel Olweus in the 1970’s and 80’s. Olweus define bullying as “intentional, repeated, negative (unpleasant or hurtful) behavior by one or more persons directed against a person who has difficulty defending himself or herself”.³ According to several studies, it was found that bullying behavior can appear as early as elementary school age and it usually peak during middle

school. Most of the US study found that 11% of children in grades 6 to 10 bullied others “sometimes,” with an additional 9% bullying more often.⁴

In a report of the National Bullying Prevention Centre, it is mentioned that according to the Centers for Disease Control, 2019, students who encounter bullying are at risk for depression, anxiety, sleep difficulties, lower academic achievement and throwing in the towel of faculty. Students who are involved in both bully and victim are at greater risk for both mental health and behavior problems than students who only bully or are only bullied.⁵

Bullies are more likely than their classmates to drop out of school. They are more likely to develop depression, anxiety and psychological discomfort if they are confronted with the severity of their bullying behavior.⁶ Bullies are more prone to abuse tobacco, alcohol, and marijuana.⁷ Bullies engage in violent and other risky behaviors such as getting into fights easily, destroying property, dropping out of school, and engaging in early sexual activity.⁸ Not only the bully but the victim also faces so many physical and psychological problems like low self-esteem, thoughts of self-harm and severe behavioral problems. Victims stay frequent absent from school because of fear of bullying.⁹

The study objectives were to find out the correlation between bullying involvement and behavioral problems among adolescents.

METHODS

Study design and setting

This study followed a non-experimental co-relational study design to assess the correlation between bullying involvement and behavioral problems at selected schools of Dehradun district.

Participants

A sample of 288 adolescent students age group 12-17 years, studying at Canterbury Bells School and Radiant Public School, Doiwala of Dehradun district was selected for the study. A self-reported questionnaire was shared with participants in school within 4 days to collect data.

Exclusion criteria

Adolescent students who were absent at the time of the study and who were not physically well at the time of study were not included in the study.

Data collection

Self-reported questionnaire was collected directly from the adolescent student in Schools. Students of class 8th, 9th, 10th, 11th, 12th were included in the study between 20

October 2021 to 26 October 2021 by using convenience sampling technique. Self-structured tool for socio-demographic profile, peer relations questionnaire for measuring bullying involvement, strengths and difficulties questionnaire (SDQ) for brief behavioral screening was used to collect data.

Measures

Self-structured tool for socio-demographic profile: It consists of personal information.

Peer relations questionnaire (PRQ): PRQ is used to measure the prevalence of bullying involvement as a bully, victim and bully-victim. Only the 2 subscales of PRQ scale that measure bullying and victimization was used in this study.

The reliability of the tool was obtained after the pilot study by administering to 28 adolescents in selected school, Ambawadi Intercollege school of Dehradun. Reliability of the tool was assessed by Test-Retest method in which the $r \geq 0.77$ for the tool. The calculated $r = 0.8$, that means the tool are reliable.

Strengths and difficulties questionnaire (SDQ): SDQ is a standard tool used to measure the behavioral problems for 11-17-year-old. It includes 5 subscales to measure emotional, hyperactivity, pro-social, conduct and peer problems.

The SDQ exhibited strong internal consistency (overall Cronbach's alpha coefficient was 0.81) and moderate test-retest reliability (Pearson's correlation coefficient was 0.71 over an 8-week interval).¹⁰

Data analysis

Data analysis was carried out in SPSS-20. In data analysis frequency and percentage, mean and standard deviation were calculated. Pearson correlation was used to find out the correlation between bullying involvement and behavioral problems. Statistical significance of the data was evaluated at $p < 0.05$ level.

RESULTS

Table 1 represents that the majority of 194 (67.36%) adolescents were belonged to less than equal 15 years age and 94 (32.64%) adolescents belonged to greater than 15 years age. The majority of 154 (53.5%) adolescents were male and 134 (46.5%) adolescents were female. The majority of 101 (35.1%) adolescents studied 9th class, 59 (20.5%) adolescents studied 8th class; 56 (19.4%) adolescents studied 10th class; 45 (15.6%) adolescents studied 11th class and 27 (9.4%) adolescents studied 12th class. The majority of 79 (27.4%) adolescents had belonged to Rs. $\geq 20,001$ monthly family income and 62 (21.5%) adolescents belonged to Rs. 5001-10,000 monthly family income, 61 (21.2%) adolescents belonged

to Rs.10,001-15,000 and Rs. 15,001-20,000 monthly family income and 25 (8.7%) adolescents belonged to Rs. ≤5000 monthly family income. The majority of 143 (49.7%) adolescents got 60-79% overall marks in last academic year, 86 (29.8%) adolescents got ≤59% overall marks and 59 (20.5%) adolescents got 80-100% overall marks in last academic year. that the majority of 158 (54.9%) adolescents did not know about bullying meaning and 130 (45.1%) adolescents knew about bullying meanings. The majority of 250 (86.8%) adolescents had been informed about the anti-bullying rules/policy/procedure in school. The majority of 147 (51%) adolescents were never absent from school. 106 (36.8%) adolescents were absent once a week from school and 35 (12.2%) adolescents were absent more than

once a week from school. The majority of 151 (52.4%) adolescents felt hard to talk only with stranger and 106 (36.8%) adolescents did not feel hard to talk with other people. The majority of 213 (74%) adolescents had close friends in school with whom share their problems and 75 (26%) adolescents had no close friends in school with whom share their problems. The majority of 138 (64.8%) adolescents had 1-2 close friends in school and 44 (20.7%) adolescents had 3-4 close friends in school; 31 (14.5%) adolescents had more than 4 close friends in school. The majority of 130 (45.1%) adolescents had family support in overcoming school problems and 113 (39.3%) adolescents had family support some time in overcoming school problems; 45 (15.6%) adolescents had no family support in overcoming school problems.

Table 1: Descriptive statistics of demographical variables N=288.

Demographic variables	Categories	Number of students	Percent
Age (years)	≤15	194	67.36
	>15	94	32.64
Gender	Male	154	53.5
	Female	134	46.5
Class studied	8 th	59	20.5
	9 th	101	35.1
	10 th	56	19.4
	11 th	45	15.6
	12 th	27	9.4
Monthly family income	≤5000	25	8.7
	5001-10,000	62	21.5
	10,001-15,000	61	21.2
	15,001-20,000	61	21.2
	≥20,001	79	27.4
Your overall % for the last academic year	80-100%	59	20.5
	79-60%	143	49.7
	59% and below	86	29.9
Do you know what bullying means	Yes	130	45.1
	No	158	54.8
Have you been informed about the anti-bullying rules/policy/procedure in your school	Yes	38	13.2
	No	250	86.8
How often are you absent from school	Never	147	51.0
	About once a week	106	36.8
	More than once a week	35	12.2
Do you find it hard to talk with other people?	Yes	31	10.8
	No	106	36.8
	Yes, but only with strangers	151	52.4
Do you have close friends in school with whom you share your problems	Yes	213	74.0
	No	75	26.0
If yes, then how many	1-2 friends	138	64.8
	3- 4 friends	44	20.7
	More than 4 friends	31	14.5
Does your family support you in overcoming school problems	Yes	130	45.1
	No	45	15.6
	Yes, some time	113	39.2

*The mean age of adolescents was 14.86±1.406

Table 2 represents that the mean score of bully was 8.86 ± 3.910 and 28 (09.7%) of the adolescents were bully. The mean score of victims was 9.52 ± 3.951 and 59 (20.5%) adolescents were found as victims. The mean score of bully-victim was 18.39 ± 6.423 and 13 (04.5%) adolescents were found as bully-victim in this study.

Table 2: Descriptive statistics of bullying involvement.

bullying involvement	Frequency (%)	Mean \pm SD
Bully	28 (09.7)	8.86 ± 3.910
Victim	59 (20.5)	9.52 ± 3.951
Bully-Victim	13 (04.5)	18.39 ± 6.423

Table 3: Descriptive statistics of behavioral problems.

Behavioural problems	Categories	Frequency (%)	Mean \pm SD
Total difficulties scale	Abnormal	50 (17.4)	14.78 ± 5.210
	Borderline	73 (25.3)	
	Normal	165 (57.3)	
Emotional problem scale	Abnormal	34 (11.8)	3.70 ± 2.190
	Borderline	29 (10.1)	
	Normal	225 (78.1)	
Conduct problem scale	Abnormal	65 (22.6)	3.21 ± 2.080
	Borderline	53 (18.4)	
	Normal	170 (59)	
Hyperactivity scale	Abnormal	33 (11.5)	4.19 ± 1.940
	Borderline	41 (14.2)	
	Normal	214 (74.3)	
Peer problem scale	Abnormal	53 (18.4)	3.67 ± 1.887
	Borderline	84 (29.2)	
	Normal	151 (52.4)	
Pro social scale	Abnormal	28 (9.7)	7.37 ± 2.142
	Borderline	31 (10.8)	
	Normal	229 (79.5)	

Table 3 represents that the mean score of difficulties behavioral scale was 14.78 ± 5.210 and the majority of 165 (57.3%) adolescents had normal behavior. The mean score of emotional problem scale was 3.70 ± 2.190 and the majority of 225 (78.1%) adolescents had normal emotional behavior problem. The mean score of conduct problem scale was 3.21 ± 2.080 and the majority of 170 (59%) adolescents had normal conduct behavior problem. The mean score of hyperactivity scale was 4.19 ± 1.940 and the majority of 214 (74.3%) adolescents had normal hyperactivity behavior problem. The mean score of peer problem scale was 3.67 ± 1.887 and the majority of 151 (52.4%) adolescents had normal peer behavior problem. The mean score of pro social scale was 7.37 ± 2.142 and

the majority of 229 (79.5%) adolescents had normal pro social behavior problem in this study.

Table 4 shows that mean score of bully; victim and bully-victim were 18.82 ± 5.690 ; 17.17 ± 5.295 and 21.62 ± 5.591 for total difficulties behavioral problem. The mean score of bully; victim and bully-victim were 6.32 ± 2.583 ; 6.54 ± 2.706 and 5.38 ± 2.534 for pro social behavioral problem. Hence bully-victim score had higher mean score than bullying and victim in this study.

Table 4: Descriptive statistics the Behavioral problems of adolescents involved in bullying (bully, victims, and bully-victims).

Behavioural problems	Bullying involvement (mean \pm SD)		
	Bullying (n=28)	Victim (n=59)	Bully-victim (n=13)
Total difficulties score	18.82 ± 5.690	17.17 ± 5.295	21.62 ± 5.591
Emotional problem score	4.32 ± 2.195	4.69 ± 2.299	4.92 ± 2.813
Conduct problem score	4.89 ± 2.558	4.02 ± 2.367	6.08 ± 2.060
Hyper activity score	4.96 ± 2.027	4.14 ± 2.096	5.54 ± 2.184
Peer problems score	4.61 ± 2.20	4.32 ± 1.833	5.08 ± 2.139
Pro social score	6.32 ± 2.583	6.54 ± 2.706	5.38 ± 2.534

Table 5 represents that correlation between bullying involvement and behavioral problem among adolescents. There was significance weak correlation between bullying score and total difficulties problem ($r=0.247$); conduct problem ($r=0.398$); hyperactivity problem ($r=0.143$); peer problem ($r=0.204$) and pro social problem ($r=-0.215$). There was significance weak correlation between victim score and total difficulties problem ($r=0.309$); emotional problem ($r=0.328$); conduct problem ($r=0.289$); peer problem ($r=0.267$) and pro social problem ($r=-0.197$). There was significance weak correlation between bully-victim score and total difficulties problem ($r=0.341$); emotional problem ($r=0.258$); conduct problem ($r=0.420$); hyperactivity problem ($r=0.135$); peer problem ($r=0.288$) and pro social problem ($r=-0.250$) in this study.

Table 5: Correlation between bullying involvement and behavioral problem.

Behavioural problems	Bullying involvement					
	Bullying (r)	P value	Victim (r)	P value	Bully-victim (r)	P value
Total difficulties score	0.247	0.001	0.309	0.001	0.341	0.001
Emotional problem score	0.092	0.119	0.328	0.001	0.258	0.001

Continued.

Behavioural problems	Bullying involvement		Victim (r)	P value	Bully-victim (r)	P value
	Bullying (r)	P value				
Conduct problem score	0.398	0.001	0.289	0.001	0.420	0.001
Hyper activity score	0.143	0.015	0.077	0.191	0.135	0.022
Peer problems score	0.204	0.015	0.267	0.001	0.288	0.001
Pro social score	-0.215	0.001	-0.194	0.01	-0.250	0.001

*r=Pearson correlation coefficient; P-value at 5% level of significance

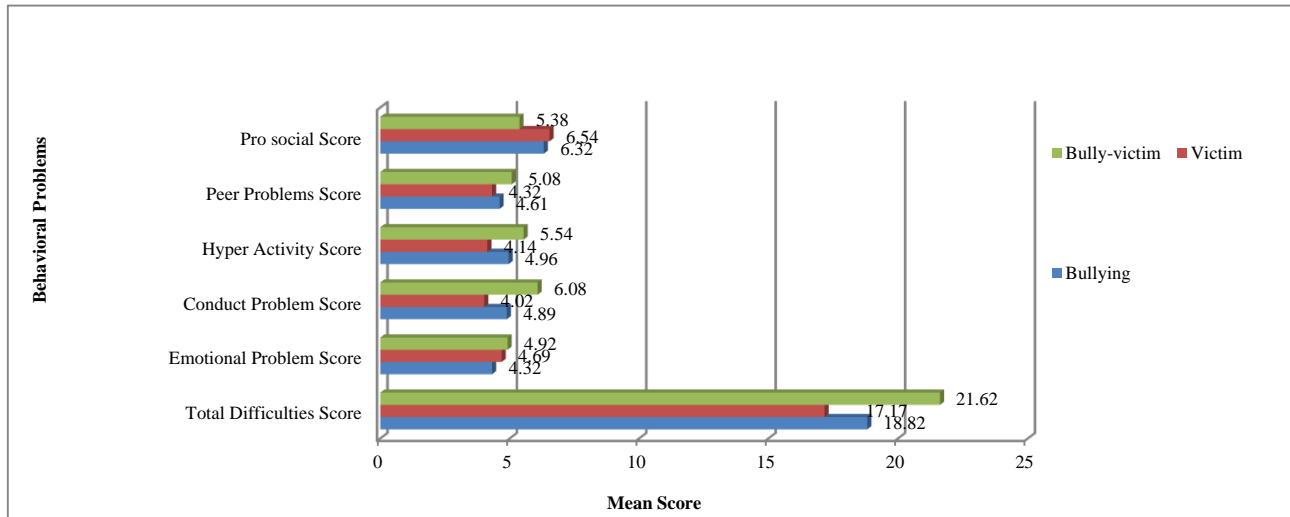


Figure 1: Proportion of bullies, victims, bully-victims falling into total strength and difficulties questionnaire (SDQ).

DISCUSSION

Prevalence of bullying

The findings of the present study provide support for suggested link between bullying involvement and behavioral problems, especially for the adolescents who are in bully-victim group. The prevalence of bullying involvement reported in the present study was 87 (30.2%) adolescents. From those 59 (20.5%) are victim, 28 (9.7%) are bully and 13 (4.5%) are bully-victim. Maximum of the participants belongs to victim group. The finding is supported by the study in 2020, which showed that prevalence of bullying was 25.6% (16% victimization, 5.2% bully, and 4.3% being bully-victim) and maximum of the participants were victims of bullying.¹¹ Another study in United State revealed that 29.9% of the sample reported frequent involved in bullying, as a bully (13.0%), as victim (10.6%), or both (6.3%).⁴

Behavioral problems of adolescents involved in bullying

In the present study 42.7% participants have behavioral problems. Most prevalent behavioral problem was peer problem among participants. This was also seen that participants involved in bullying had significant behavioral problems. Among the three group of bullying involvement, bully-victim group had maximum behavioral problem. There are several studies in support

to our findings which reveal that bully-victim group is more temperamental and different than the typical students.¹² Bully-victim groups significantly had more emotional symptoms, peer problems and hyperactivity compared to other groups.¹³ These findings suggest that future research would focus more on bully-victim group and explore more about them.

Correlation between bullying involvement and behavioral problems among adolescents

This study reflects significance positive correlation between bullying involvement and behavioral problems. Result indicates that conduct problem, hyperactivity problem and peer problem were most likely correlated to bully. While pro-social behavior had negative weak correlation with bully. Victim were correlated to emotional problem, conduct problem, peer problem while pro social behavior had weak negative correlation with victim. Bully-victim were correlated to emotional problem, conduct problem, hyperactivity problem. peer problem while weak negative correlation with pro social behavior. The result support the previous study which shows the same result that participants who were involved in bullying specially the bully-victim group had more behavioral problems.¹⁴ Another study on 2017 concluded that the adolescents who were involved in bullying had significantly increased in SDQ.¹⁵

Schools should accommodate interventional strategies to handle bullying problem. The findings about the bully-victim group in this study also suggest that victim can also become bully or bully can become victim there would be more exploration in this area.

This study did not include random sample of an adolescents of schools because of limited sample due to COVID-19 pandemic. The data collected in this study was only from the self-report however future research could also consider data from teachers and parents. This study is limited to few schools, further studies would include more schools for assessing the prevalence of bullying and behavioral problems.

CONCLUSION

This study provide contribution to the literature on the correlation between bullying involvement and behavioral problems. The findings suggest that there is substantial prevalence of bullying involvement among adolescents. Bullying involvement is significantly correlated to behavioral problems. This research also found that bully-victim group have more behavioral problems. Hence there is need to explore bullying and also the cause of bullying. School should take different intervention for reducing bullying involvement and more focus on behavioral problems and mental health of adolescents. Moreover, teachers should coordinate with bully's students.

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