

# Bullying Behavior and Psychosocial Health - A Cross-sectional Study among School Students of Pyuthan Municipality

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## ABSTRACT

**Background:** Bullying remains as pervasive phenomenon affecting children worldwide. Bullying in school has long been a matter of concern as wide range of adjustment problems including poor mental health and violent behavior in school are associated with it. The present study examined the prevalence of bullying behavior (bullies, victims and bully-victims) and their association with depression and psychosomatic symptoms.

**Methods:** A cross-sectional descriptive study was carried out among 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> grade students of Pyuthan Municipality, Mid-Western Nepal. A total of 405 students responded to the structured self-administered questionnaire. Data was collected from randomly selected public and private schools. Descriptive and inferential statistics were used for analysis.

**Results:** The result of this study showed higher prevalence of bully (55.8%) among students of Relatively Advantaged Janajati whereas victims (64.86%) belonged to Disadvantaged Janajatis. Students who bully were found more in grade 8 and 10 whilst the students of grade 9 were more victims. Bullying behavior prevailed more in private schools than in public schools.

**Conclusions:** The overall prevalence of bullying behavior (either bully or victim) is 69.14%. The finding bolsters an association between bullying behavior and depression, psychosomatic symptoms and school type. Higher prevalence of bullying behavior suggested by this study portends the alarming consequences among school students. Bullying needs to be addressed fleetly. Effective interventions that reduce bullying practice in school is essential.

**Keywords:** Bullying behavior; Nepal; psychosomatic health; school students.

## INTRODUCTION

Bullying, a worldwide phenomenon, mostly occurs among school children resulting to poor health.<sup>1-4</sup> Bullying has been defined as the intentional unprovoked abuse of power by one or more children to inflict pain or cause distress to another child on repeated occasion with negative actions either physical contact, verbal assault, nonverbal gestures and intentional exclusion characterized by imbalance of power.<sup>2,3,5</sup>

Bully is the initiator of the bullying behavior whereas the victim is the target of bully. Bully-victim is the one who is being bullied by others and is started taking part in bullying others.

Bullying is often followed by short-term and long-term undesirable psychosocial consequences.<sup>6,7</sup> Both the victims and perpetrators of bullying tend to have many

physical and psychological symptoms, such as depressive symptomatology, sleeping difficulty, severe suicidal ideation, psychiatric and psychosomatic symptoms and may continue to adulthood.<sup>3, 7-11</sup>

Qualitative study conducted in Nepal explored bullying as prominent issue in Nepal.<sup>12</sup> However, quantitative study on bullying in Nepal has not been conducted till date. This study is therefore a small attempt to put the triggering stone into the still pond of school bullying research in Nepal.

## METHODS

This was descriptive quantitative study conducted in five schools of Pyuthan municipality including both public and private. Students of grade 8th, 9th and 10th were selected using proportionate sampling. Study period was from April to May, 2016. Ethical approval

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was obtained from Institutional Review Committee of Manmohan Memorial Institute of Health Sciences (MMIHS). Approval was obtained from District Education Office (DEO) Pyuthan. Formal permission was obtained from concerned authority. Written informed consent was obtained from each respondent with detail explanation of the purpose of the study to ensure their right to information. Confidentiality of respondent was maintained with an exemption to participate in the study or refuse to answer the question which they felt awkward with. Approval was obtained from parents of each respondent.

Simple random sampling was done to select the respondents. Sample size was calculated using the sampling formula.

This study used the self-administered structured questionnaire to collect the information. Standard questionnaire - "Olweus Bullying Questionnaire" was used to assess the information on bullying behavior and "A compendium Assessment Tools" developed by Centre for Disease Control (CDC) was used for measuring bullying victimization, perpetration and bystander experience. Assessment of Depression was done using PHQ-9 (Patient Health Questionnaire-9) developed by Kurt Kroenke and Rober L. Spitzer. Psychosomatic symptoms were assessed adopting SSS-8 scale (Somatic Symptoms Scale-8). A response of more than once or twice in each question was attributes to categorize the bully, victim and bully-victim. Bully is the students who answered '2-3 times a month' for at least one question of bully-only scale. Victim is the students who answered '2-3 times a month' for at least one question of victim-only scale. Bully-victim is the students who answered '2-3 times a month' for at least one question of each bully-only scale and victim-only scale.

Regarding the validity of the tool assessment tools were developed in close assistant of expertise. The study tools were pretested among 40 students in selected school of Pyuthan Municipality before conducting the actual study. Flaws encountered following pretest was corrected and modified prior to the actual study. To maintain the reliability, researcher themselves from the study team were involved in data collection.

Prior for the analysis, collected data were checked and data cleaning was done. Data entry and analysis was executed using SPSS version 20.0 (SPSS Inc.). Mean, Median age, Standard deviation was expressed using descriptive analysis. Association was expressed using inferential statistics - chi-square test. P-value less than 0.05 were considered as significant.

## RESULTS

Mean age of the respondents participated in the study was 14.39 years. Median age was 14.0 years. Age range varied between 12 - 20 years. Mean age for the Bully, Victim and Bully-Victim was 14.50 years, 14.49 years and 14.53 years respectively. Participation of girls (51.60%) in the study was higher as compared to boys (48.40%). Upper caste group (54.81%) represented the majority of participants followed by Disadvantaged Janajati (18.27%) with least participants from religious minorities (0.49%).

Study reported the augmented bullying behavior with increasing age group. Bullying behavior was exhibited more by boys than girls. Boys involved in bullying others (62.25%) commensurate the boys being bullied by others (62.76%). Relatively fewer girls were perpetrator and bully-victim as compared to the proportion of victimization. Prevalence of bully (55.8%) showed more stability among the students of Relatively Advantaged Janajatis. Victims (64.86%) encompassed the students from Disadvantaged Janajatis. Additionally, students from Dalit caste showcased the state of both bully and bullied by others (48.44%).

The prevalence of bully, victim and bully-victim was 52.3%, 58.0% and 41.2% respectively. Verbal abuse was reported as common form of bullying. Majority of students (65.1%) bullied others through the means of calling names and making fun of or teasing. Bullying others through the means of names or gestures with sexual meaning (39.5%) was eminent. Physical form of bullying was found prevalent among students (Bully - 18.9%, Victim - 19.6% & Bully-victim - 9.0%). Regardless of internet/mobile used as common form for bullying, few students (3.8%) reported their participation in damage of property. Alarmingly, 16.2% students were suffered by damage of their property by others.

Overall bullying tendency was high in private school than in government school. Boy students from all grades (8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup>) exhibited bullying characteristics in both public and private schools.

Bivariate analysis was carried out to determine the association between different factors and bullying behavior. Gender ( $p=0.0001$ ), school type ( $p=0.039$ ), depression ( $p=0.0001$ ) and psychosomatic symptoms burden ( $p=0.0001$ ) have been associated with bully characteristics. Bullying characteristics were not associated with age and school grade.

Bivariate analysis reported significant association of victim characteristics with school type ( $p=0.0001$ ), depression ( $p=0.0001$ ) and psychosomatic symptoms

burden ( $p=0.0001$ ) regardless of gender and age.

Gender ( $p=0.004$ ), school type ( $p=0.0001$ ), depression ( $p=0.0001$ ) and psychosomatic symptoms burden ( $p=0.0001$ ) have been associated with bully-victim

characteristics. No association was observed regarding age and school type with that of bully-victim characteristics.

In all cases the confidence interval was 95%.

**Table 1. Socio-demographic characteristics.**

Variables	Demographic characteristics %	Bully (%)	Victim (%)	Bully-Victim (%)
<b>Age</b>				
< 14 Years (n=94)	30.82	42.55	54.26	35.11
14 - 15 Years (n=240)	59.26	54.58	56.67	40.83
> 15 Years (n=71)	17.53	57.75	67.61	50.70
Mean Age (Overall) = 14.39 yrs.		14.50 yrs.	14.49 yrs.	14.53 yrs.
<b>Gender</b>				
Females (n=209)	51.60	43.06	53.59	34.45
Males (n=196)	48.40	62.24	62.76	48.47
<b>Ethnicity</b>				
Dalit (n=64)	15.80	64.06	59.38	48.44
Disadvantaged Janajati (n=74)	18.27	47.30	64.86	40.54
Religious Minorities (n=2)	0.49	0.00	100.00	0.00
Relatively Advantaged Janajati (n=43)	10.62	55.81	58.14	46.51
Upper Caste Group (n=222)	54.81	50.45	54.95	38.74

**Table 2. Different forms of bullying.**

Type of bullying behavior	Bullying Behavior					
	Bully (n = 212)		Victim (n = 235)		Bully - Victim (n=167)	
	N	%	N	%	N	%
<b>Verbal</b>	195	92	207	88.1	142	85.0
Tease	127	65.1	147	71.0		
Threaten	35	17.9	30	14.5		
Religion or caste associated Bullying	22	11.3	27	13.0		
Sexual meaning associated bullying	77	39.5	82	39.5		
<b>Physical (Hit, Push, Kick, Shove around)</b>	40	18.9	46	19.6	15	9.0
<b>Relational</b>	33	15.6	60	25.5	18	10.8
Direct	13	39.4	17	28.3		
Indirect	25	75.8	48	80		
<b>Damage of property</b>	8	3.8	38	16.2	5	3.0
<b>Mobile or Internet related bullying</b>	28	13.2	43	18.3	17	10.2

Table 3. School type and grade wise bullying tendency.

Government					Private				
Grade	Bullying Tendency				Grade	Bullying Tendency			
	Neither Bullied nor bully	Bully	Victim	Bully-Victim		Neither Bullied nor bully	Bully	Victim	Bully-Victim
	Boys					Boys			
8 (n=35)	34.3%	62.9%	54.3%	51.4%	8 (n=14)	14.3%	71.4%	78.6%	64.3%
9 (n=60)	23.3%	56.7%	60.0%	40.0%	9 (n=11)	0.0%	54.5%	100.0%	54.5%
10 (n=55)	27.3%	60.0%	82.9%	40.0%	10 (n=21)	14.3%	81.0%	81.0%	76.2%
Girls					Girls				
8 (n=39)	38.5%	41.0%	53.8%	33.3%	8 (n=12)	33.3%	41.7%	66.7%	41.7%
9 (n=89)	38.2%	44.9%	53.9%	37.1%	9 (n=12)	25.0%	58.3%	66.7%	50.0%
10 (n=49)	44.9%	36.7%	42.9%	24.5%	10 (n=8)	12.5%	50.0%	75.0%	37.5%

Table 4. Bullying behaviors and its association with others.

Variables	Bully		P - Value	Victim		P - Value	Bully-Victim		P - Value
	No (%)	Yes (%)		No (%)	Yes (%)		No (%)	Yes (%)	
<b>Age</b>									
< 14 Years	28.0%	18.9%		25.3%	21.7%		25.6%	19.8%	
14 - 15 Years	56.5%	61.8%	0.085	61.2%	57.9%	0.182	59.7%	58.7%	0.129
> 15 Years	15.5%	19.3%		13.5%	20.4%		14.7%	21.6%	
<b>Gender</b>									
Male	38.3%	57.5%	0.0001	42.9%	52.3%	0.062	42.4%	56.9%	0.004
Female	61.7%	42.5%		57.1%	47.7%		57.6%	43.1%	
<b>School Grade</b>									
8	24.4%	25.0%		24.1%	25.1%		23.1%	26.9%	
9	44.0%	41.0%	0.818	40.6%	43.8%	0.663	43.3%	41.3%	0.667
10	31.6%	34.0%		35.3%	31.1%		33.6%	31.7%	
<b>School Type</b>									
Public	85.0%	76.9%	0.039	90.0%	74.0%	0.0001	86.1%	73.1%	0.0001
Private	15.0%	23.1%		10.0%	26.0%		13.9%	26.9%	
<b>Depression</b>									
Yes	40.9%	67.9%	0.0001	34.7%	69.8%	0.0001	42.9%	72.5%	0.0001
No	59.1%	32.1%		65.3%	30.2%		57.1%	27.5%	
<b>Psychosomatic symptoms Burden</b>									
None	69.4%	52.8%		80.6%	46.4%		71.4%	45.5%	
Medium	16.1%	26.9%	0.0001	12.4%	28.5%	0.0001	15.1%	31.1%	0.0001
High	14.5%	20.3%		7.1%	25.1%		13.4%	23.4%	

## DISCUSSION

Our study revealed the overall prevalence of bullying behavior (either bully or victim) as 69.14%. Finding was inconsistent with a study conducted in India.<sup>1,2,13</sup> Observational and analytical study conducted in India noted higher prevalence of bullying as 60.4%.<sup>1</sup> Similarly, in a study in North Indian City, prevalence of bullying behavior was 53%. However, the result was inconsistent with the studies conducted in western countries.<sup>2-5,9,14,15</sup> 22% of sample was classified as involved in bullying as reported by study in Los Angeles.<sup>16</sup> Similarly, a study in United States noted 29.9% of sample involved in moderate or frequent bullying.<sup>14</sup> Verbal bullying was the most common form of bullying reported by our study. Finding was in agreement with the various researches conducted.<sup>1-5, 9, 14, 15</sup>

Many studies have noted the bullying behavior was more prominent among boys as compared to girls.<sup>1, 12, 13, 16</sup> Our study showed the similar findings. In contrast to the study carried out in India<sup>2</sup> prevalence of bullying among boys was 63.9% as compared to girls which was 53%.<sup>1</sup> Males students were significantly engaged in aggressive behavior compared to female students.<sup>13</sup> A cross sectional comparative study of 40 countries suggests the higher estimates of bullying for boys from 8.6% to 45.2% and among girls rates ranged from 4.8 to 35.8%.<sup>17</sup> In our study, majority of the victims were bullied by their classmates. Perpetrators of bullying on victims mainly was done by more than one students and is consistent with the study carried out in Iran.<sup>15</sup>

Consistent with the extensive literature on bullying, findings from this investigation offer further evidence on male students engaged in aggressive behavior more than female student. Boys have more freedom to express their freedom and they tend to be ready to do anything for sake of maintaining their place in group. In different ways, they victimize others. On the other hand, girls are usually taught to avoid direct and aggressive behavior in different ways.<sup>12</sup>

Our study revealed the statistically significant association between bullying behavior, psychological and psychosomatic health. Psychosomatic score was comparatively higher among victim and bully-victim. Depression was noted higher among them. These results are consistent with various study related to school bullying.<sup>18-20</sup> Researchers contemplate the feeling of guilt or shame may be influential factor for depression behind bullying.<sup>21</sup> Anti-bullying programs involving boys and girls in a different ways are highly recommended to be conducted.<sup>22</sup> As showed by extensive research, bullying and victimization are in the increasing trend.<sup>23</sup>

## CONCLUSIONS

Bullying among school children is the prominent issue suggested by various studies and literatures. Being bullied is further associated with increased risk of developing long-lasting harm. However, limited body of research related to bullying has been conducted in Nepal. This research provides the insight towards emerging issue and consequences of bullying among school children. It is pivotal to investigate and conduct further research in order to demonstrate the deleterious effects of bullying in mental health of school children. Current findings of the study suggest variable prevalence of bullying in types of school and sex of students. Public and private specific and gender specific intervention program is recommended.

This study provides insights into the bullying tendency among school students in Nepal. Furthermore, this study made possible to compare the bullying prevalence among public and private school. Though the data were collected through self - administered method, to minimize the subjectivity, students were provided with a detailed definition of bullying along with examples. Additional strength of this study is that it provides information on psychosocial correlates of bullying among school students. Although the study area was selected purposively, random sampling method was used to select the study population and study unit. Pre-testing of the tools add another strength in this study.

At the same time study should be considered in light of several important limitations. The study area has been chosen purposively and the sample size is relatively small. So, this study cannot be generalized in larger population. Since, the study mainly focused at obtaining the information on prevalence of different forms of bullying behavior, more in - depth information , such as might be acquired from intervention study addressing the bullying are not available. The data are cross-sectional, and as such, the direction of relationship among the variables cannot be determined. Another limitation is that we had to reliance on the self-administered method of data collection, which might be sometime impotent to gain the reliable information. Because individual perception on bullying may vary.

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