



Research article

Prevalence and nature of bullying in schools of Bangladesh: A pilot study

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ABSTRACT

Bullying at schools is considered as the most contemptible anti-social behavior for students (Neto, 2005). There is little information about the prevalence and nature of bullying victimization experiences among Bangladeshi school students. Therefore, the present study aimed to investigate the prevalence and nature of bullying experienced by Bangladeshi school students. A sample of 556 students were surveyed utilizing the translated Bangla version of the Multidimensional Bullying Victimization Scale. Nearly half of the participants were bullying victims in schools over the last year. Results showed that the most commonly experienced forms of bullying were pushing or shoving, being made fun of, and having rumours spread. Students who were boys, from public schools, and lived in urban areas had significantly higher bullying victimization experiences. Findings of this present study would be helpful for the policymakers and other stakeholders to reform anti-bullying policies and appoint school psychologists to ascertain positive behavior and eliminate bullying entirely.

1. Introduction

The fulfillment of basic human needs is a neoteric phenomenon that's been present throughout the history of the human race. Since the advancement of human civilization, not only have basic human needs been met, but such advancement has also incited numerous new dimensional problems. For example, some people are deprived of medical assistance or benefits due to economic reasons; additionally, as of late, mental health problems and psychiatric illnesses are increasingly worsening due to daily life-threatening mechanisms (Hidaka, 2012). The focus on mental health is important, as mental health problems can be a barrier to the completion of developmental stages in early life. Bullying is one of those hurdles that occurs primarily at a young developmental age (Wolke et al., 2017). In this study, the prevalence and nature of bullying experienced by Bangladeshi school students is investigated.

1.1. Bullying

Bullying is defined as the use of force, threat, or coercion to abuse, intimidate, or aggressively dominate others. One essential prerequisite is the perception, by the bully or by others, of an imbalance of social or physical power that distinguishes bullying from conflict (Juvonen and Graham, 2014). However, it is widely agreed that bullying is a

subcategory of aggressive behavior characterized by three minimum criteria: (1) hostile intent, (2) the imbalance of power, and (3) repetition over a while (Burger et al., 2015). It is featured with the intention of harming others (Baron, 1977), which can result in physical injury and property damage (Bandura, 1973). The reality is that bullying causes extreme damage to physical, mental, and additionally social well-being and prosperity.

There are four types of bullying: verbal, physical, psychological, and cyberbullying. Although verbal bullying (name-calling, teasing, insults, etc.) might begin inconsequentially, it may rise to extremes that impact the particular target. Physical bullying (pushing, hitting, kicking, etc.) intends the short term as well as long term effects (Monks and Smith, 2006). Psychological bullying could be characterized as any sort of deliberate and intended emotional maltreatment. Certain individuals may perceive that they have been mistreated for something that psychologically hurts them, however, it normally can only be described as bullying if it happened deliberately, particularly with a malintent intention (Davies, 2016). Cyberbullying can be described as deliberate and repetitive damage caused by computers, telephones as well as other online platforms. The use of digital technology, particularly computers or cellphones, or other social media and online platforms is where this form of bullying occurs. This category of bullying can be in the forms of overt, covert, or both (National Center Against Bullying, 2017). Moreover,

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bullying can be direct or indirect. Direct bullying is relatively an open attack on a victim that could be physical or verbal (Hirsch et al., 2012). Indirect bullying does not hurt physically; instead, it harms an individual's social position, self-esteem, and social relations through rumours and gossip (National Voices for Equality, Education, and Enlightenment [NVEEE], 2016). Indirect bullying is more unobtrusive and harder to identify, yet includes at least one type of social hatred, such as, social segregation through purposeful prohibition, spreading bits of gossip to mischief one's character, disgusting motions in the face of somebody's good faith, and controlling other relationships.

1.2. Bullying at school and its impact

Bullying at school prevails among the students, characterized by aggressive behavior and deliberate physical and psychological harm to the peer recurrently. Bullying at school can induce a power imbalance between victims and their perpetrators, where victims fail to protect themselves from the offenders (Olweus, 1993). Bullying at school can occur anywhere and at any moment, but despite this assertion, bullying is discernible more with training classes and physical exercises. Likewise, bullying can be found in school passages, lavatories, and even on the school bus. Apart from the cultural and economic differences, bullying is considered a serious problem in academic settings (Kibriya et al., 2015; Neto, 2005). In a previous study, alarmingly, 78.5% of secondary school-going Bangladeshi students have reported bullying experiences by their own teachers (Aker and Khatun, 2020). Obviously, their academic performance is being affected due to bullying at schools in diversified modes, where victims have been found to be often unhappy and have fewer friends (Al-Raqad et al., 2017; Boulton and Underwood, 1992; Oliveira et al., 2018). Recurrent bullying at school assails students' mental, physical, and social entity that impedes their academic achievement (Abdulsalam et al., 2017). The students experiencing bullying are more prone to develop psychiatric disorders, such as, anxiety, depression, and isolate themselves from others (Kumpulainen et al., 2001). When a student who is a victim of bullying feels unsafe, it can lead to less social engagement in and outside of school and less motivation to engage in academic activities (Mehta et al., 2012). Moreover, during adolescence, a student faces immense psycho-social and physical alterations that can amplify the negativity of the bullying process (Wang et al., 2012). Physical maltreatment of bullying has long-lasting effects on the hypothalamic-pituitary-adrenal (HPA) reactivity too and has been found to be associated with social, emotional, and behavioral problems (Ouellet-Morin et al., 2011). It is a very specific, yet common occurrence to have long-term psychological effects induced from short-term impacts of school bullying. Depression and anxiety tend to characterize a victim's emotional countenance well beyond the bullying years, extending into their adult lives where they can become chronic, sometimes leaving them encountering these problems lifelong (Steele, 2015). Furthermore, bullying at school can ultimately affect other aspects of life, such as work and social relationships. Apart from the occupational losses, some other psychological effects have been observed, like, lingering feelings, increased interpersonal difficulties which can lead to social isolation, perception of self as easy to victimize, problems in self-esteem, increased incidence of continued bullying, and victimization (Dombeck, 2015).

1.3. Present study

In Bangladesh, primary education levels include Grades I to V and secondary education levels include Grades VI to XII. The secondary levels are also divided into two parts – secondary (Grade VI to X) and higher secondary (Grade XI to XII). In this study, we intended to assess the prevalence of bullying among students from primary and secondary schools. Based on the authors' observations, bullying is a common phenomenon at schools in both rural and urban areas of Bangladesh. However, there was little information regarding bullying's prevalence and its nature. Since bullying has short-term and long-term adverse effects, it is

essential to explore the prevalence rate and nature of bullying at schools in Bangladesh. Therefore, the present study aims to investigate the prevalence and nature of bullying experienced by Bangladeshi school students. Besides this, we also investigated the association between bullying and demographic variables (e.g., gender, grade, school types [based on ownership of schools], living area [either urban or rural area], parents' occupation, etc.).

2. Method

2.1. Participants

The study population of the present study was Bangladeshi secondary school students. The present survey was conducted on a sample of 556 secondary school students recruited via a series of convenience sampling techniques. At first, three districts among 64 districts of Bangladesh were selected via the convenience sampling technique. From these districts, 6 schools (two from each residential area) were also selected again through the convenience sampling technique. From these selected schools, a sample of 556 students was selected again via the convenient sampling technique.

2.2. Measures

In this study, a questionnaire booklet (included the Multidimensional Bullying Victimization Scale (MBVS; Harbin et al., 2019) and personal information questions about age, gender, academic grade, living area (where participants were living), and parents' occupation) was used to collect the necessary information.

2.2.1. Multidimensional bullying victimization scale (MBVS)

The MBVS is a 24-item tool used to assess bullying experiences among students. This scale assesses three type of bullying (e.g., direct [i.e., "Call me mean names"] [Items – 1, 4, 5, 6, 8–12, 14, and 19], indirect [i.e., "Spread rumors about me in text messages"] [Items – 2, 3, 7, 15, 18, and 22], and evaluative bullying [i.e., "Throw objects at me"] [Items – 13, 16, 17, 20, 21, 23, and 24]). This scale is a psychometrically sound measure as reported by authors. This scale had good model fits ($\chi^2 = 985.22$, $df = 244$, $p < .001$, Comparative Fit Index [CFI] = .912, Tucker-Lewis Index [TLI] = .900, Root Mean Square Error of Approximation [RMSEA] = .070, 90% CI [.065, .074]) and good internal consistency reliability (ranging from .84 to .89). In the present study, this scale was translated into the Bangla language for the purpose of using it in this study (the translation procedure is described in the "Procedure" subsection). Participants were asked to rate their bullying experiences over the last year utilizing a four-point Likert scale 0 (*never*) to 3 (*very often*). Total scores ranged from 0 to 63. The score of 0 suggests that the respondents have no experience of bullying, and scores 1 or above suggest that the respondents have experienced some sort of bullying.

2.3. Procedure

The MBVS was developed to assess the prevalence of bullying in western cultures. Although it was developed for western cultures, the types of bullying experiences that this scale assesses are also almost all common in Bangladesh. Therefore, experts' opinions were taken about the applicability and suitability of this scale in Bangladesh culture. The translation of the MBVS was carried out by following the guidelines of the International Test Commission (ITC, 2018). In the first phase, experts' opinions were taken, on whether this scale would apply to the Bangladeshi culture. Expert opinions found that 21 items out of 24 items would be applicable in the Bangladesh context. In the next stage, these 21 items of this scale were translated by two experts. Then these translations were adjusted into one. For the next stage, this translation was back-translated into the original language, English, by two other experts, and these back translations were then adjusted into one. Following this, the two other

experts compared the original version and the back-translated version to ensure there was not a significant difference in meaning among the 21 items. They recommended no significant discrepancy between the scales in the original language and back-translated versions for meaning. Then, this translated scale was administered in a pilot study to test whether the Bangla language of the scale would create any difficulty in understanding. Respondents' responses and administrators' observations confirmed that this scale would be applicable in the Bangladeshi culture. Both the pilot and field study were conducted in a school setting. It was challenging to collect consent from participants' parents. Therefore, teachers' consent was taken to collect information from students. Additionally, student consent to participate in this study was taken before administering the questionnaire.

2.4. Statistical analysis

In this study, the Statistical Package for Social Science (SPSS) version 26.0 and R Studio were utilized for data management and data analyses. Item analysis and confirmatory factor analysis were performed to assess the psychometric properties of the MBVS. Descriptive statistics (e.g., frequencies, percentages, etc.), chi-square test, and independent-sample *t*-test were performed to assess the prevalence and explore the nature of bullying experienced by school students. The descriptive statistics (frequency and percentages) were used to estimate the experience of a different form of bullying. The chi-square test was used to assess the interaction between demographic characteristics and bullying experience.

2.5. Ethics

The present study involved human participants in collecting data (survey data) about bullying. This study was carried out following the Declaration of Helsinki. All procedures performed in the present study following the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This present study was approved by the ethics committee of the Northwest Normal University, China (ERB no.-20190035 dated: 2019/9/15).

3. Results

Participants' demographic distribution is presented in Table 1. Participants' mean age was 12.95 years (*SD* = 1.45 years). Among participants,

Table 1. Demographic distribution of participants.

Age	Mean (<i>SD</i>)	12.95 (1.45) years
Gender	Boys	34.2%
	Girls	65.8%
Residence of living	Rural	43.9%
	Urban	56.1%
Grade	Grade III	3.8%
	Grade V	3.8%
	Grade VI	22.1%
	Grade VII	39.4%
	Grade IX	33.5%
Types of schools	Public	33.5%
	Private	66.5%
Mother's Occupation	Housewives	92.3%
	Job holder (except teacher)	3.4%
	Teacher	3.6%
Father's Occupation	Business	40.8%
	Farming	18.3%
	Job holder (except teacher)	16.9%
	Non-residential Bangladeshi	6.8%
	Teacher	5.9%

Note. *SD* = standard deviation.

34.2% were boys and 65.8% were girls, 56.1% were from urban areas, and 43.9% from rural areas. Among the participants, 3.8% were from Grade III, 3.8% from Grade V, 22.1% from Grade VI, 39.4% from Grade VII, and 30.9% from Grade IX. In terms of school types, 33.5% of respondents were from public schools and 66.5% from private schools. In terms of the mother's occupation, 92.3% of participants' mothers were housewives, and 3.4% had jobs (except teaching), and 3.6% were teachers. In terms of the father's occupation, 40.8% of participants' fathers were involved in business, 18.3% were in farming, 16.9% had jobs (except teaching), 6.8% were non-residential Bangladeshis, 5.9% were teachers, and the remaining worked in other occupations.

3.1. Preliminary analysis

Supplementary Table 1 demonstrated that all items of the MBVS had acceptable corrected item-total correlations, ranging between .573 and .735 for the direct bullying subscale, between .459 and .560 for the indirect subscale, and between .639 and .789 for the evaluative bullying subscale. These item discrimination indices suggested that the MBVS Bangla version is able to discriminate between lower scorers (fewer experiences of bullying) and higher scorers (higher numbers of bullying experiences). Confirmatory factor analysis results in Supplementary Table 1 show that the three-factor correlated model had good model fit ($\chi^2 = 239.896$, *df* = 186, $\chi^2/df = 1.290$, CFI = .999, TLI = .999, RMSEA = .023, SRMR = .052). Model fit values confirmed the construct validity of the MBVS Bangla version. Supplementary Table 1 also showed that the MBVS Bangla version had good internal consistency reliabilities, (direct bullying subscale: $\alpha = .906$, $\omega = .912$; indirect bullying scale: $\alpha = .732$, $\omega = .738$; evaluative bullying subscale: $\alpha = .889$, $\omega = .893$). This scale also had acceptable average variance of extracted (AVE) values (ranging from .645 to .787) and good composite reliabilities (ranging from .879 to .965). Overall, the MBVS Bangla had good psychometric properties (item discrimination index, reliability, and construct validity) to assess the bullying experience among Bangladeshi school students.

3.2. Final analysis

Results show that 44.4% (*n* = 247) of the participants had a bullying experience (Supplementary Figure 1). From Table 2, the more experienced forms of bullying were "make fun of me" (55.1%), "push or shove me" (52.2%), "spread of rumours about me in text messages" (51.0%), "yell at me" (42.9%), "ignore my texts" (42.5%), and "take, hide, or knock my things down" (40.5%). The least experienced forms of bullying were "curse at me" (11.7%), "punch or hit me" (19.4%), and "make negative comments about my clothing" (19.4%).

Table 3 shows the distribution of the bullying experience in terms of demographic characteristics. From Table 3, the proportion of bullying experience was nearly equal for both boys (45.8%) and girls (43.7%), and the interaction between gender and bullying experience was non-significant ($\chi^2 = .22$, *p* > .05). Results in Table 3 also showed that the interaction between grade level and bullying experience was significant ($\chi^2 = 64.68$, *p* < .001). Participants from Grade VII had more bullying experience (64.4%) than participants from any other grades. Participants from public schools (61.8%) had more bullying experience than participants from private schools (35.7%), and the interaction between school types and bullying experience was significant ($\chi^2 = 34.29$, *p* < .001). Participants from urban areas (50.0%) had more bullying experience than rural areas (37.3%), and the interaction between participants' residence area and bullying experience was significant ($\chi^2 = 8.95$, *p* < .01). Table 3 also shows that participants, whose mother (65.0%) and father (72.7%) were teachers, had more bullying experience than parents in other occupations. The interaction between the father's occupation and bullying experience was significant ($\chi^2 = 17.32$, *p* < .05). A significant interaction was also found for students from urban areas only ($\chi^2 = 22.65$, *p* < .01).

Table 2. Frequency and percentages of bullying victimization experience by items (n = 247).

Bullying Type		Bullying experience			
		Overall	Sometimes	Often	Very Often
1	Call me mean names	96 (38.9%)	71 (28.7%)	19 (7.7%)	6 (2.4%)
2	Spread rumors about me in text messages	126 (51.0%)	89 (36%)	30 (12.1%)	7 (2.8%)
3	Push or shove me	129 (52.2%)	113 (45.7%)	14 (5.7%)	2 (.8%)
4	Curse at me	29 (11.7%)	24 (9.7%)	4 (1.6%)	1 (.4%)
5	Make fun of me	136 (55.1%)	99 (40.1%)	27 (10.9%)	10 (4%)
6	Ignore my texts	105 (42.5%)	83 (33.6%)	18 (7.3%)	4 (1.6%)
7	Tease me	73 (29.6%)	51 (20.6%)	19 (7.7%)	3 (1.2%)
8	Punch or hit me	48 (19.4%)	41 (16.6%)	5 (2%)	2 (.8%)
9	Bump into me on purpose	94 (38.1%)	49 (19.8%)	36 (14.6%)	9 (3.6%)
10	Call me stupid	65 (26.3%)	50 (20.2%)	10 (4%)	5 (2%)
11	Yell at me	106 (42.9%)	79 (32%)	15 (6.1%)	12 (4.9%)
12	Make fun of my appearance	57 (23.1%)	34 (13.8%)	14 (5.7%)	9 (3.6%)
13	Throw objects at me	52 (21.1%)	40 (16.2%)	10 (4%)	2 (.8%)
14	Ignore me	61 (24.7%)	45 (18.2%)	12 (4.9%)	4 (1.6%)
15	Make fun of my size	76 (30.8%)	40 (16.2%)	21 (8.5%)	15 (6.1%)
16	Make negative comments about my clothing	48 (19.4%)	34 (13.8%)	7 (2.8%)	7 (2.8%)
17	Take, hide, or knock my things down	100 (40.5%)	71 (28.7%)	18 (7.3%)	11 (4.5%)
18	Make fun of my physical features	57 (23.1%)	29 (11.7%)	12 (4.9%)	16 (6.5%)
19	Make fun of my weight	58 (23.5%)	35 (14.2%)	10 (4%)	13 (5.3%)
20	Leave me out or exclude me	68 (27.5%)	44 (17.8%)	16 (6.5%)	8 (3.2%)
21	Make fun of me for my grades	59 (23.9%)	33 (13.4%)	3 (1.2%)	23 (9.3%)

Table 4 shows that boys had higher experiences of bullying than girls in the forms of “call me mean names” ($\chi^2 = 7.01, p < .05$), “tease me” ($\chi^2 = 13.85, p < .01$), “punch or hit me” ($\chi^2 = 9.34, p < .01$), “make negative comments about my clothing” ($\chi^2 = 7.49, p < .01$), and “make fun of my physical features” ($\chi^2 = 7.88, p < .05$). Participants from public schools had higher experiences of bullying in forms of “call me mean names” ($\chi^2 = 37.89, p < .01$), “spread rumors about me

in text messages” ($\chi^2 = 26.22, p < .01$), “make fun of me” ($\chi^2 = 14.97, p < .01$), “ignore my texts” ($\chi^2 = 8.74, p < .01$), “tease me” ($\chi^2 = 24.45, p < .01$), “punch or hit me” ($\chi^2 = 14.61, p < .01$), “bump into me on purpose” ($\chi^2 = 13.91, p < .01$), “yell at me” ($\chi^2 = 8.23, p < .01$), “throw objects at me” ($\chi^2 = 8.79, p < .01$), “ignore me” ($\chi^2 = 13.12, p < .01$), “make negative comments about my clothing” ($\chi^2 = 12.26, p < .01$), “take, hide, or knock my things down” ($\chi^2 = 16.86, p < .01$), and

Table 3. Distribution of experiencing bullying victimization by gender, school type, parents’ occupation (n = 247).

Variable		Bullying experience		χ^2
		No	Yes	
Gender	Boys (190)	54.2% (103)	45.8% (87)	.22
	Girls (366)	56.3% (206)	43.7% (160)	
Grade	III (21)	90.5% (19)	9.5% (2)	64.68***
	V (21)	76.2% (16)	23.8% (5)	
	VI (123)	62.6% (77)	37.4% (46)	
	VII (219)	35.6% (78)	64.4% (141)	
	IX (172)	69.2% (119)	30.8% (53)	
Type of School	Public (186)	38.2% (71)	61.8% (115)	34.29***
	Private (370)	64.3% (238)	35.7% (132)	
Residential Area	Rural (244)	62.7% (153)	37.3% (91)	8.95**
	Urban (312)	50.0% (156)	50.0% (156)	
Mother’s Occupation	Housewife (513)	56.7% (291)	43.3% (222)	
	Job Holder (excluding Teacher) (19)	47.4% (9)	52.6% (10)	
	Teacher (20)	35.0% (7)	65.0% (13)	
	Others (4)	50.0% (2)	50.0% (2)	
Father’s Occupation	Farmer (102)	56.9% (58)	43.1% (44)	17.32*
	Non-residential Bangladeshi (38)	47.4% (19)	52.6% (19)	
	Job Holder (excluding Teacher) (94)	57.4% (54)	42.6% (40)	
	Businessman (227)	57.3% (130)	42.7% (97)	
	Driver (18)	83.3% (15)	16.7% (3)	
	Teacher (33)	27.3% (9)	72.7% (24)	
	Others (17)	55.6% (9)	44.4% (8)	

** $p < .01$, *** $p < .001$.

“make fun of my weight” ($\chi^2 = 6.39, p < .05$). Participants from urban areas had higher experiences of bullying in forms of “call me mean names” ($\chi^2 = 20.72, p < .01$), “spread rumors about me in text messages” ($\chi^2 = 5.32, p < .05$), “tease me” ($\chi^2 = 7.80, p < .01$), “ignore me” ($\chi^2 = 5.75, p < .05$), “make fun of my size” ($\chi^2 = 6.63, p < .01$) and “make fun of my weight” ($\chi^2 = 5.59, p < .05$); participants from rural areas had higher experiences of bullying in form of “push or shove me” ($\chi^2 = 13.86, p < .01$).

4. Discussion

The present research aimed to explore the prevalence and nature of bullying experienced by Bangladeshi school students. The Multidimensional Bullying Victimization Scale (MBVS; Harbin et al., 2019) was translated into the Bangla language for this study to assess bullying at schools. Results showed that items of this translated scale had acceptable item discrimination indices. The three-factor correlated structure of the original scale was retained in the Bangla version of the scale and items also had higher factor loadings. Moreover, the scale had good internal consistency reliabilities (alpha and omega), AVE values, and composite reliability. In the original study of the MBVS scale, authors reported high factor loadings and good internal consistency reliabilities (Harbin et al., 2019). Psychometric properties of the MBVS Bangla version were consistent with the original study reported.

The present study provided an overall view of the prevalence rate of bullying experienced by Bangladeshi school students. Findings suggested that nearly half of the school students (44.4%) had experienced bullying victimization. This is comparable to one study, according to a survey report by UNICEF, which included a sample from 122 countries, where 35% of children aged between 13 and 15 years old in Bangladesh said they experience bullying at school (bdnews24.com, 2018). Although, the present study suggested a higher rate of bullying victimization than the UNICEF. Moreover, UNICEF studied students aged between 13 and 15 years old and the present study's sampled students ranging between 8 and 15 years old. Differences in age coverage between the two studies might be the reason for such discrepancy in the prevalence rate of bullying victimization.

Regarding the nature of bullying, the present study suggested that the most common forms of bullying were physical assaults like pushing, shoving, hitting, etc. It is grasped that all of them are fun centric. Incessantly, bullying in schools has been covenanted as a source of fun, not a crime and the circumstantial outlook towards bullying prevents it from being constructed as a formal crime (Furniss, 2000). But the increasing number of bullying-related incidents, where the perpetrators are beyond the fun limit and inflict violence in Bangladesh schools is alarming. Lai et al. (2008) conducted a study on middle school students from ten countries in the Asia-Pacific region and found that most experienced the “made fun” of form of bullying. In that same study, students from the Philippines were found to have the highest proportion of experiencing different forms of bullying than those in the other nine countries.

Our results showed non-significant gender differences in the overall prevalence of bullying victimization experiences. Results also showed that boys had a significantly higher number of experiences for different forms of bullying, mostly different forms of direct and evaluative bullying. Carbone-Lopez et al. (2010) found that the ratio of experiencing direct bullying was higher for boys than girls and vice versa for indirect bullying. Boys engage in physical fights with other boys in schools comparatively higher than girls. Studies suggest that boys are more involved in fighting behavior than girls (Saini and Balda, 2019; Swahn et al., 2013). Such bullying behavior for boys tends to be more aggressive as they enjoy the status of the fight (Gordon, 2019), which was reflected in the present study. Findings also showed that the prevalence of experiencing bullying was higher among Grade VII students. It is not clear why Grade VII students had a higher prevalence of bullying victimization, and this finding asserts further qualitative researches to reveal why such differences existed.

Results showed that the prevalence of bullying was higher among students from public schools. Machimbarrena and Garaigordobil (2017) also reported similar findings. For combating bullying at schools, the mechanism inside the school activates first where most of the public schools of Bangladesh are dearth fails for managing bullying (Rashid, 2019). Often the public schools' teacher-student ratio is much higher

Table 4. Differences in different forms of bullying victims' experiences by gender, school types, and living area (n = 247).

		Demographic Characteristics		
		Boys vs. Girls	Public vs. Private	Rural vs. Urban
1	Call me mean names	7.01*	37.89**	20.72**
2	Spread rumors about me in text messages	1.61	26.22**	5.32*
3	Push or shove me	.75	3.02	13.86**
4	Curse at me	1.54	.86	.08
5	Make fun of me	1.84	14.97**	3.71
6	Ignore my texts	.51	8.74**	2.39
7	Tease me	13.85**	24.45**	7.80**
8	Punch or hit me	9.34**	14.61**	1.53
9	Bump into me on purpose	.20	13.91**	1.43
10	Call me stupid	3.57	.40	1.45
11	Yell at me	2.38	8.23**	1.44
12	Make fun of my appearance	1.78	.76	.08
13	Throw objects at me	3.66	8.79**	.29
14	Ignore me	3.10	13.12**	5.75*
15	Make fun of my size	1.10	.17	6.63**
16	Make negative comments about my clothing	7.49**	12.26**	1.53
17	Take, hide, or knock my things down	1.84	16.86**	.001
18	Make fun of my physical features	7.88**	3.09	1.99
19	Make fun of my weight	2.30	6.39*	5.59*
20	Leave me out or exclude me	.004	.23	.32
21	Make fun of me for my grades	1.21	.44	.28

*p < .05, **p < .01.

than that of the private school, which has a significant likelihood of undetected cases of bullying, where small classroom size has the advantage of identifying the incidents of bullying. The technological support to monitoring students' activities in school premises in private schools might be a reason for the lower prevalence of bullying in private schools. The socio-economic condition of students' family might be another reason for such differences. In public schools, most of the students come from lower and middle-income families as the costs in these schools are much lower. On the other hand, costs in private schools are much higher, and most of the students come from affluent families. Guardians of private school students are more concerned about their academic performance and as well as the learning environment. Therefore, authorities of private schools tend to ensure a healthy environment for their students.

Regarding school locations, results showed that half of the total respondents from urban area schools had significantly more bullying victimization experiences than respondents from schools in rural areas. Findings regarding playschool locations differed from studies conducted in western cultures (Dulmus et al., 2004; Leadbeater et al., 2013). Children and adolescents are naturally influenced by circumstantial persons. In rural areas of Bangladesh, children and adolescents come in contact with more non-relatives and spend more quality time with them than those in urban. Moreover, the family pattern is extended in nature for rural areas. Another important factor is technology; for example, rural students have less access to electronic devices and have fewer opportunities to enjoy cartoons, play games (either violent or nonviolent), etc.

The present study also revealed a finding that bullying victimization was higher among teachers' children compared to parents from other professions. It is a matter of discussion of why this rate is higher. One reason may be that the school-going children from the teacher families are morally guided to avoid more bullying activities; as they want to avoid problems, students who bully others see them as the weaker one. Further qualitative and quantitative research to explore underlying reasons are anticipated.

4.1. Limitations of the study

The present study has some limitations. In this study, self-report data were collected from the non-representative sample. Self-report data has the risk of biases like social desirability bias, memory recall, etc. Furthermore, the data were collected from only six schools via the convenience sampling technique. Another major limitation was that the prevalence of bullying victimization was measured only in the present study and students' engagement in bullying others, aggressive behaviour, etc. at schools was not assessed. Students' engagement in bullying activities and aggressive behaviour at schools would be helpful to provide some insights regarding findings that need further empirical studies as discussed above. These limitations could be overcome in future quantitative and qualitative research.

4.2. Recommendations

To detect the early warning signs of bullying, this present study recommends appointing school psychologists. They would be able to ensure positive behavior to safeguard victims and disunite the repeated perpetration. Apart from appointing school psychologist, effective psycho-education programs and training for the teachers would be helpful. Schools can arrange awareness training and workshops focusing on the negative impacts of bullying on victims. To prevent bullying, peaceful interventions combining guardians should be implemented. From the legal and policy perspective, school psychologists could develop a comprehensive model to amplify the interventions. Mass campaigns and social skill development could help students combat bullying. School psychologists also could conduct a socio-emotional assessment for both the victims and perpetrators through an elimination module. Moreover,

all schools must set up anti-bullying policies merged with the statutory laws and evidence bases to create more bias-free judgment.

4.3. Conclusion

Bullying at school is the most common offence among students globally. Unfortunately, little to no information is available for this phenomenon in Bangladesh. Results of this study highlight the nature and prevalence of bullying in Bangladesh schools. Bullying victimization is highly socio-demography (grade, gender, residence, parent's occupation) sensitive. To date, school bullying has failed to get adequate research attention in Bangladesh. Therefore, the findings of this study help to simultaneously extend important insights regarding the actual bullying conditions and pave this subject's future research endeavour.

Declarations

Author contribution statement

Md. Zahir Ahmed, Oli Ahmed: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Fatema Akhter Hiramoni: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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Data availability statement

Data will be made available on request.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

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References

- Abdulsalam, A.J., Al Daihani, A.E., Francis, K., 2017. Prevalence and associated factors of peer victimization (bullying) among grades 7 and 8 middle school students in Kuwait. *Int. J. Pediatr.* 2017, 1–8.
- Akter, S., Khatun, F., 2020. Bullying behaviour and mental health of secondary school students. *Bang. Psychol. Stud.* 30, 67–74.
- Al-Raqad, H.K., Al-Bourini, E.S., Talahin, F.M., Aranki, R.M.E., 2017. The impact of school bullying on 'students' academic achievement from teachers' point of view. *Int. Educ. Stud.* 10 (6), 44–50.
- Bandura, A., 1973. *Aggression: A Social Learning Analysis*. Prentice Hall.
- Baron, R.A., 1977. *Human Aggression*. Plenum.
- bdnews24.com, 2018. 35% of School Students Experience Bullying in Bangladesh: UNICEF. Retrieved from. <https://bdnews24.com/education/2018/09/06/35-of-school-students-experience-bullying-in-bangladesh-unicef>.
- Boulton, M.J., Underwood, K., 1992. Bully/victim problems among middle school children. *Br. J. Educ. Psychol.* 62 (1), 73–87.
- Burger, C., Strohmeier, D., Spröber, N., Bauman, S., Rigby, K., 2015. How teachers respond to school bullying: an examination of self-reported intervention strategy use, moderator effects, and concurrent use of multiple strategies. *Teach. Teach. Educ.* 51, 191–202.

- Carbone-Lopez, K., Esbensen, F.-A., Brick, B.T., 2010. Correlates and consequences of peer victimization: gender differences in direct and indirect forms of bullying. *Youth Violence Juv. Justice* 8 (4), 332–350.
- Davies, P., 2016. What Is Psychological Bullying? Retrieved June 06, 2021, from <https://www.pearldavies.com/post/2016-1-22-what-is-psychological-bullying>.
- Dombek, M., 2015. The Long Term Effects of Bullying. *Mental Help*. Retrieved from <https://www.mentalhelp.net/articles/the-long-term-effects-of-bullying/>.
- Dulmus, C.N., Theriot, M.T., Sowers, K.M., Blackburn, J.A., 2004. Student reports of peer bullying victimization in a rural school. *Stress Trauma Crisis* 7, 1–16.
- Furniss, C., 2000. Bullying in schools: it's not a crime - is it? *Educ. Law* 12 (1), 9–29.
- Gordon, S., 2019. Do Girls and Boys Bully Differently? *Very Well Family*. Retrieved from <https://www.verywellfamily.com/do-girls-and-boys-bully-differently-460494>.
- Harbin, S.M., Kelley, M.L., Piscitello, J., Walker, S.J., 2019. Multidimensional bullying victimization scale: development and validation. *J. Sch. Violence* 18 (1), 146–161.
- Hidaka, B.H., 2012. Depression as a disease of modernity: explanations for increasing prevalence. *J. Affect. Disord.* 140 (3), 205–214.
- Hirsch, L., Lowen, C., Santorelli, D., 2012. *Bully: An Action Plan for Teachers and Parents to Combat the Bullying Crisis*. Weinstein Books.
- International Test Commission, 2018. The ITC guidelines for translating and adapting tests (Second Edition). *Int. J. Test.* 18 (2), 101–134.
- Juvonen, J., Graham, S., 2014. Bullying in schools: the power of bullies and the plight of victims. *Annu. Rev. Psychol.* 65, 159–185.
- Kibriya, S., Xu, Z.P., Zhang, Y., 2015. The impact of bullying on educational performance in Ghana: a bias-reducing matching approach. In: 2015 Agricultural and Applied Economics Association & Western Agricultural Economics Association Joint Annual Meeting, San Francisco, CA.
- Kumpulainen, K., Räsänen, E., Puura, K., 2001. Psychiatric disorders and the use of mental health services among children involved in bullying. *Aggress. Behav.* 27 (2), 102–110.
- Lai, S.-L., Ye, R., Chang, K.-P., 2008. Bullying in middle schools: an Asian-pacific regional study. *Asia Pac. Educ. Rev.* 9 (4), 503–515.
- Leadbeater, B.J., Sukhawathanakul, P., Smith, A., Thompson, R.S.Y., Gladstone, E.J., Sklar, N., 2013. Bullying and victimization in rural schools: risks, reasons, and responses. *J. Rural Commun. Develop.* 8 (1), 31–47.
- Machimbarrena, J.M., Garaigordobil, M., 2017. Bullying/Cyberbullying in 5th and 6th grade: differences between public and private schools. *An. Psicolog.* 33 (2), 319–326.
- Mehta, S.B., Cornell, D., Fan, X., Gregory, A., 2012. Bullying climate and school engagement in ninth-grade students. *J. Sch. Health* 83 (1), 45–52.
- Monks, C.P., Smith, P.K., 2006. Definitions of bullying: age differences in understanding of the term, and the role of experience. *Br. J. Dev. Psychol.* 24 (4), 801–821.
- National Center Against Bullying, 2017. Types of Bullying. Retrieved June 6, 2021, from <https://www.ncab.org.au/bullying-advice/bullying-for-parents/types-of-bullying/>.
- National Voices for Equality Education and Enlightenment, 2016. Indirect bullying. In: *Indirect Bullying*. NVEEE. Retrieved May 13, 2020, from <https://www.nveee.org/indirect-bullying/>.
- Neto, A.A.L., 2005. Bullying: comportamento agressivo entre estudantes. *J. Pediatr.* 81 (5).
- Oliveira, F.R., de Menezes, T.A., Irfi, G., Oliveira, G.R., 2018. Bullying effect on student's performance. *Economia* 19 (1), 57–73.
- Olweus, D., 1993. *Bullying at School: what We Know and what We Can Do*. Wiley-Blackwell.
- Ouellet-Morin, I., Odgers, C.L., Danese, A., Bowes, L., Shakoor, S., Papadopoulos, A.S., Moffitt, T.E., Arseneault, L., 2011. Blunted cortisol responses to stress signal social and behavioral problems among maltreated/bullied 12-year-old children. *Biol. Psychiatr.* 70 (11), 1016–1023.
- Rashid, H.U., 2019. Anti-bullying Policy Dearth 'fails' Schools. *The Independent*. Retrieved from <http://www.theindependentbd.com/>.
- Saini, V., Balda, S., 2019. Bullying, victimization and fighting in secondary school: gender-based differences. *Int. J. Curr. Microbiol. Appl. Sci.* 8 (6), 1759–1764.
- Steele, A., 2015. The psychological effects of bullying on kids & teens. In: *Masters in Psychology Guide*. Retrieved from <https://mastersinpsychologyguide.com/articles/psychological-effects-bullying-kids-teens/>.
- Swahn, M.H., Gressard, L., Palmier, J.B., Yao, H., Haberen, M., 2013. The prevalence of very frequent physical fighting among boys and girls in 27 countries and cities: regional and gender differences. *J. Environ. Publ. Health* 2013, 215126.
- Wang, H., Zhou, X., Lu, C., Wu, J., Deng, X., Hong, L., He, Y., 2012. Adolescent bullying involvement and psychosocial aspects of family and school life: a cross-sectional study from Guangdong Province in China. *PLoS One* 7 (7).
- Wolke, D., Lee, K., Guy, A., 2017. Cyberbullying: a storm in a teacup? *Eur. Child Adolesc. Psychiatr.* 26 (8), 899–908.