
ORIGINAL ARTICLE

Comparison of Bullying Effects on Mental Health of Male and Female Students

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ABSTRACT

Bullying can be a major problem for many children at most schools. Traditionally bullying is associated with lower academic achievements and generally lower life satisfaction in a child's primary years of life. Previous studies exploring the effects of bullying on positive psychological constructs of a child have varying results. Aims and Objectives were to compare the levels of bullying between male and female adolescents and evaluate its effect on the positive mental wellbeing of each gender. A cross-sectional study was carried out over a period of three months from November 2019-January 2020 at Sacred Heart Convent School and Ibn e Sina College in Lahore. The data was compiled and analyzed at CMH Lahore Medical College 381 participants were selected from both schools and the severity of bullying was analyzed by using a Questionnaire Performa Questionnaire designed using the Victimization Scale and the WHO5 scale. The scores were calculated for each gender and the results were compared for victimization and positive mental well-being. The results showed that 3.5% boys and 0.87% girls were physically victimized and 12.9% boys and 4.83% girls were verbally/emotionally bullied for more than 6 times in the week prior to administration of the questionnaires. Boys are more likely to be victims of bullying and bullies themselves even though their psychological well being may be better than girls.

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INTRODUCTION

Bullying is defined as "repeated oppression, psychological or physical, of a less powerful person by a more powerful person or groups of persons" [1]. Bullying not only has severe negative effects on the victims involved, but also has serious implications on much broader levels, including family life, education and health [2]. It is important for the victim as well as the bully to share their experience so that the root causes of such aggressive and volatile behavior can be determined. They should be helped and counselled as well. Confidence building programs should be introduced for both in schools and colleges.

There has been a lot of research done on bullying but not as much in Pakistan. It is only during the past few years that bullying was identified as a real problem effecting the mental health of students. Unfortunately, it still is not being taken seriously and anti-bullying programs need to be promoted to counter this problem as soon as possible otherwise aggressive behavior in bullies and low self-esteem in victims would become a per meant part of their personalities [3].

Our research aimed at comparing and contrasting the amount of bullying as well as its effects in a co-educational day school versus an all-girls day school. Literature review showed that in general, boys seem to experience more victimization and bullying than girls, up to an effect size of 0.50 [4]. However, girls

tended to report harassment based on gender as well as based on other reasons. The increased rate of bullying harassment experienced by girls based on gender is found in Lipson's findings [5]. In another research conducted in middle school children the results showed that those boys who were cyber bullied were also more likely to be victims of traditional bullying compared to cyber bullied girls. Thus, being only cyber bullied seems to be more prominent among girls [6]. This is an interesting finding as it may indicate the indirect and more hidden nature of bullying behavior in girls, previously discovered by Lagerspetz *et al* [8, 9]. Another research states that boys are more prone to be bullies and victims when it comes to physical aggression however girls more often engage in indirect forms of bullying, such as teasing or gossip about peers [9-11]. It must also be noted that girls are more likely to report bullying as compared to boys. Another interpretation is that girls more often than boys view rough commenting as bullying behavior while boys may be interpreting it merely as a form of interaction [12].

MATERIAL AND METHODS

After approval from ethical committee of CMH Lahore medical college, participants were enrolled in grades 6 to 10 in academic year 2019-2020 from 2 schools of Lahore; Sacred Heart Convent School (SHCS) and Ibn e Sina. The sample size was calculated as 381 using the Rao Software with a 95% confidence interval and 5% margin error.

The survey consisted of three parts. 1. Demographic profile, 2. Victimization Scale by CDC¹³; this scale was used to collect data for bullying. It measures frequency of self-reported victimization during the week prior to the survey in middle school children. The scores are additive, and the scale ranges from 0 to 60 points. High values indicate higher frequency of being the victim of aggressive acts. 3. WHO (Five) Well-Being Index (WHO-5) [14]. This scale collected data for mental well-being. This scale is a self-reported measure of current mental well-being. It comprises of five items to which respondents rate how well the items apply to themselves on a five point Likert scale ranging from '0' to '5'. The total ranged from 0 to 25, is multiplied by 4 to give the final score, with 0 representing the worst imaginable well-being and 100 representing the best imaginable well-being. A score below 13 indicates poor well-being.

All data was analyzed using SPSS software (version 26; IBM). Results were presented in frequency and percentages. Mean and standard deviation was obtained for quantitative variables: Victimization Scale, Well-Being Index and age. Chi-square test was used for comparison of categorical variables. P value < 0.05 was statistically significant.

RESULTS

Participants were enrolled in grades 6 to 10 in academic year 2019-2020 from 2 schools of Lahore; Sacred Heart Convent School (SHCS) and Ibn e Sina. Both schools are located in urban areas of Lahore. SHCS is an all-girls school whereas as Ibn e Sina is a co-educational school with separate sections for girls and boys on the same campus. Table 1 summarizes the statistics based on age, grade, school and religion.

Table 1: Statistics of participants based on age, grade, school and religion

		Male Percentage	Female Percentage
Age	10 to 11	7.8%	3.5%
	12 to 13	62.7%	66.2%
	14 to 15	20.3%	29.8%
School	Ibn e Sina	100%	52.2%
	SHCS	0.0%	47.8%
School Grade	Grade 6	43.1%	13.2%
	Grade 7	37.9%	36.8%
	Grade 8	0.0%	35.5%
	Grade 9	19.0%	8.3%
	Grade 10	0.0%	6.1%
Religion	Islam	99.3%	96.0%
	Christianity	0.0%	4.0%
	Others	0.7%	0.0%

From the results of demographic profile around 60-67% of both males and females were from middle class families. The academic performance varied with boys(42.5%) excelling more than girls (32.0%). However only 27.5% of the boys out of all always felt successful at school and vice versa only 22.8% girls also felt the same. Girls socialized more with their class fellows other than their friends than the boys,44.4% of the boys did not socialize with others compared to the 27.6% of the unsocial girls. Boys

(70.6%) and girls (69.7%) had gotten into arguments with each other but 11.1% of the boys very often had arguments compared to 5.7% of the girls in the past one week. However, both genders socialized with their friends well. The results are presented in Table 2.

Table 2: Demographic Profile of the Participants

		male	female	P value
How will you rate your academic performance in your class?	top ten percent	42.5%	32.0%	0.286
	above average	34.0%	38.2%	
	average	21.6%	26.3%	
	below average	1.3%	1.8%	
	bottom ten percent	0.7%	1.8%	
How many friends do you have?	1 to 2	6.5%	14.0%	0.000
	3 to 5	21.6%	28.1%	
	5 to 7	10.5%	19.7%	
	8 to 10	15.7%	12.3%	
	more than 10	45.8%	25.9%	
How will you identify your social class	upper	32.0%	38.2%	0.277
	middle	67.3%	60.1%	
	lower	0.7%	1.8%	
Do you feel successful at school?	always	27.5%	22.8%	0.572
	sometimes	69.3%	73.2%	
	never	3.3%	3.9%	
Do you socialize well with your friends?	yes	92.8%	91.2%	
	no	7.2%	8.8%	
Do you socialize will with your classmates other than your friends?	yes	55.6%	72.4%	
	no	44.4%	27.6%	
How often do you get into an argument with your classmates?	very often	11.1%	5.7%	0.120
	often	14.4%	10.5%	
	sometimes	45.1%	53.5%	
	almost never	29.4%	30.3%	
BMI Analysis	0	0.0%	0.6%	0.016
	underweight	15.5%	20.7%	
	normal	58.8%	65.9%	
	overweight	16.2%	10.6%	
	obese	9.5%	2.2%	

When it came to victimization it was noted that boys tended to be more victimized than girls. They also showed more tendency to be violent physically as well as verbally. The results have been summarized in Table 3. Verbal bullying which includes teasing, saying things or calling names to the student or his/her family, and by emotionally hurting a student showed that on average 59.48% boys and 38.78% girls were bullied this way. Physical bullying included beating, pushing and shoving, and trying hitting which showed 27.6% boys and 17.1% girls experienced these at least once in the past one week. 32% boys and 18.4% girls were also encouraged to fight with their peers which shows that another group which itself

does not harm others but uses someone else’s violent nature to their advantage to bully others. Almost all the values are significant as their P Values are 0.000 with the exception of teasing (0.001),beating (0.016) and tried hurting (0.086).

The last part reflected on the positive mental health of students and its co-relation with bullying. Results are shown in Table 4. On calculating average of all 5 variables of this scale 82.34% males and 81.15% females had a positive mental health.

Table 3: Summary of Victimization between the two genders.

	0 times		1 time		2 times		3 times		4 times		5 times		6 times		p-value
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
A student teased me to make me angry	34.0%	55.4%	22.9%	20.6%	17.6%	10.1%	10.5%	5.3%	4.6%	1.8%	0.0%	1.8%	10.5%	6.1%	0.001
A student beat me up.	82.4%	93.4%	11.1%	3.1%	3.3%	1.3%	2.0%	1.8%	-	-	0.7%	0.4%	0.7%	0.0%	0.016
A student said things about me to make other students laugh (made fun of me).	30.1%	54.4%	19.6%	18.4%	16.3%	13.2%	7.2%	5.3%	6.5%	2.2%	2.6%	1.3%	17.6%	5.3%	0.000
Other students encouraged me to fight.	68.0%	81.6%	11.1%	13.2%	9.2%	2.6%	4.6%	1.8%	2.0%	0.9%	-	-	5.2%	0.0%	0.000
A student pushed or shoved me.	33.3%	68.0%	34.6%	20.2%	11.1%	5.7%	7.8%	3.9%	3.9%	0.4%	2.6%	0.4%	6.5%	1.3%	0.000
A student asked me to fight.	64.7%	90.4%	14.4%	7.5%	7.2%	1.3%	5.9%	0.0%	2.6%	0.9%	1.3%	0.0%	3.9%	0.0%	0.000
A student slapped or kicked me.	66.7%	85.1%	15.7%	7.0%	4.6%	4.4%	3.3%	1.3%	3.3%	0.4%	1.3%	1.3%	5.2%	0.4%	0.000
A student called me (or my family) bad names.	56.9%	84.2%	14.4%	6.1%	9.8%	3.1%	3.9%	2.6%	3.9%	0.9%	1.3%	0.4%	9.8%	2.6%	0.000
A student threatened to hurt or hit me.	64.7%	87.3%	19.6%	6.6%	6.5%	3.5%	2.6%	0.9%	2.0%	0.0%	1.3%	0.4%	3.3%	1.3%	0.000
A student tried to hurt me.	41.2%	50.9%	22.2%	24.1%	7.2%	8.3%	7.8%	4.8%	3.9%	3.9%	3.9%	2.2%	13.7%	5.7%	0.086

DISCUSSION

This cross-sectional study examined the association between traditional bullying and its co-relation with the positive mental health of boys and girls separately. The results showed that 3.5% boys and 0.87% girls were physically victimized and 12.9 boys and 4.83% girls were verbally/emotionally bullied for more than 6 times in the past 1 week. 5.2% boys were involved in encouraging their friends to get into an argument also more than 6 times a week whereas 0% girls reported that. This confirmed that boys were bullied more than girls.

However, when we reviewed the results of the WHO Mental Health questionnaires boys tended to be more emotionally stable as well as healthier than girls. They were in better spirits and had found interests in their daily lives. They had a better emotional approach at dealing with bullying than girls. A few girls also mentioned depression on their own at the end on the blank page of the questionnaire. Some of them were bullied and the others not. Those who were their depression along with daily bullying have had a

very negative impact on their lives. They did not socialize well even with their own friends and their academic results were not satisfactory.

We also identified a group of students who tended to encourage their bully friends more, who took advantage of the vulnerable nature of their friends to their own. Such cases need to be taken seriously, as these children may be at the highest risk of ill mental wellbeing. Existing literature suggest that victims of bullying display less self-control than normative youth and an impaired ability to correctly interpret others' perspectives and behaviors. This lack of empathetic traits may be important in determining their aggressive behavior [3, 15, 16]. Furthermore, research also needs to be conducted to find the relation of cyber bullying on the lives of the bullied; whether they are bullied, bullying or both via internet platforms.

Table 4: Mental wellbeing of male and female students

	All of the time	Most of the time		More than half of the time		Less than half of the time		Some of the time		At no time		p-value
		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
I have felt cheerful and in good spirits.	3.9%	5.3%	21.1%	13.7%	5.7%	24.2%	16.7%	35.3%	36.4%	7.8%	14.9%	0.010
I have felt calm and relaxed.	9.2%	14.0%	13.6%	17.6%	12.7%	19.6%	16.7%	25.5%	30.3%	11.8%	12.7%	0.411
I have felt active and vigorous.	3.3%	6.1%	10.5%	7.8%	12.3%	17.6%	23.7%	32.7%	23.2%	27.5%	24.1%	0.143
I woke up feeling fresh and rested.	22.9%	16.7%	15.4%	13.1%	9.6%	15.7%	15.8%	16.3%	21.5%	19.6%	21.1%	0.452
My daily life has been filled with things that interest me.	11.1%	11.0%	19.7%	13.1%	10.1%	25.5%	12.7%	15.0%	25.0%	21.6%	21.5%	0.009

This study adds to previous researches in several ways. It demonstrates that in Pakistan, traditional bullying is common and is clearly related with lower general happiness and higher depression. Different forms of bullying co-occur and are connected to a heightened risk of mental ill-being. Therefore, it is important to recognize the adverse effects of bullying. Existing literature on the topic of bullying and how it negatively affects the victims revealing that it leads to negative self-image, an increased risk of depression, suicide ideation and below normative academic performance. There is a need to promote of anti-bullying behaviors and incorporate programs to help develop strong psychological aspects of positive health, as an integral part of the curriculums of Pakistani Schools. A positive school environment is necessary not only for better academic achievement but also psychological health [17]. A study established the importance of physical education in preventing bullying behavior [18]. Another study examined quality-of-life impacts of bullying on children as well as how these children envision a day in which their quality of life was high. The results of this qualitative study stated that the bullied felt helpless, lonely and excluded. These children expressed a need for bullying to be recognized while demanding assistance from the school staff to stop the bullying, and to be included by their peers [19]. Another study found that peer and teacher support system help in moderating the quality of life of victims [20]. According to study by Bradshaw, Waasdorp and Johnson internalizing behaviors have a

strong association with depression and suicidal ideation [21]. It is important for those bullied to share their experience and seek help, while those bullying should be discouraged and counseled. This can only be accomplished by introducing programs in schools that work on the development of mental health; improvement in interpersonal relationships, social skills, behavior issues, aggression control. Anti-bullying programs not only help reduce bullying and victimization but also are a gateway to less crimes and more civilized individuals being raised. According to a research by Tofi and Farrington (2012), anti-bullying programs led to an average decrease in bullying by 20 to 23 percent and in victimization by 17 to 20 percent [22].

CONCLUSION

Unfortunately, administrative faculty in the educational institutions pay little attention to this serious problem, and there is a need to incorporate the promotion of anti-bullying instruction and promote positive health as an integral part of the curriculums of Pakistani Schools. Bullying not only has severe negative effects on the people involved, but also has serious implications on much broader levels, including family life, education and health. It is important for those bullied to share their experience and seek help, while those bullying should be discouraged and counseled. This can be accomplished by introducing programs in schools that work on the development of mental health; improvement in interpersonal relationships, social skills, behavior issues, aggression control.

For future studies on the subject a larger size, with a cross-section of the different communities in the Pakistani population could better establish the significance of any correlation between the two factors the researchers chose to study. The compliance and the veracity of the answers may be questionable because of the influence of students' peers. The scales utilized were tested on American populations, and thus may not be as valid for a Pakistani adolescent population. Further study should be undertaken on this topic, as its importance cannot be denied; the children of today are the future leaders of tomorrow, and only if they have a positive and healthy psychological outlook will Pakistan be able to move forward as a country. The study could also be improved if the mental health of victims from different socioeconomic backgrounds could be studied specially in the rural areas where majority of the Pakistani population lives. There is also a need to identify who are the bullies, where is this bullying happening and how is the bullying happening between different genders. There is also a need to identify the differences in causes of these boys and girls becoming bullies and what factors lead to victimization among the male and female population. Lastly, our research only focused on the victims of bullying not the bullies themselves which according to the previous researches show that bully-victims (those who bully and are bullied themselves) are the most vulnerable to psychobiological symptoms with respect to depression and anxiety [23]. Another study by Hilliard *et al* found that, compared to bullies and bully victims, victims did not show deficits in positive psychological constructs [24].

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DISCLAIMER

The abstract has neither been presented or published in any conference or abstract book, nor is it part of a PhD thesis.

CONFLICT OF INTREST

None to declare

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None to declare

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