



RESEARCH PAPER

The Area Based Effects of Cyber Bullying on Academic Achievement and Behavior of Students at Higher Secondary Level

Ejaz Ahmad Mirza¹ Jamila Begum² Ghulam Hayder³

1. PhD Scholar, Education Officer, QAED (SED) Punjab, Pakistan
2. Ph.D Scholar, School Education Department Punjab, Pakistan
3. Ph. D Scholar, School Education Department Punjab, Pakistan

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ABSTRACT

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Corresponding Author:

eoejazmirza@gmail.com

The purpose of this research is to discover the effects of cyber bullying on students' academic achievement and their behavior. The objective of the research was to find out the academic achievement affected by cyberbullying and behavior of students on Area basis at higher secondary school level. Through random sampling technique, 2160 students and 48 teachers from 6 districts were selected. Questionnaire and interviews were used for data analysis using descriptive statistics and inferential statistics. The results showed that cyber bullying significantly affects students' academic achievement than their behavior. No significant effect of cyber bullying was found on students' academic achievement and their behavior with respect to their Area. The qualitative data obtained from interviews teachers concludes that students are well aware of cyber bullying and cyber bullying equally affects boys and girls of public sector higher secondary schools.

Introduction

Bullying and harassing through new electronic advancements of information and communication technology is referred as cyber bullying. Cyber bullying has emerged and expanded in the most recent decade (Smith & Steffgen, 2013). Cyber bullying is concerned with the information technology that accessed by everyone daily in this era caused through Internet messaging, emails, text messages, cell phones, social networks, video clips, and pictures and is a matter inviting attention of the world today. Cyber bullying through the information technology is almost a routine students; phones, social networks, instant messages, email, Internet informs, images, and video clips. Some types of cyber bullying include postings on pages of social networking sites like Facebook, We Chat and WhatsApp, texting, and email. A few cases of digital harassing can include intimidations, gossipy tidbits, and sending, taking or circulating pictures, utilizing the electronic devices. This age of technology has made a mixture of

correspondence assets accessible for youngsters and grownups alike. Unfortunately, this shift in technology equally gives new venues in which bullying can happen. Technological and communications gadgets, for example, computers and mobile phones have opened other ways to what now is known as cyber bullying. It also means that the harm is carried out over and over after some period. It shows some variance in power and authority among the cyber criminals and victims. Modern technology is constantly advancing and lately, it has shown itself in an intense social issue. Recent technology is similar to a sword having a double edge; meanwhile it provides for the world a fast connection to each other, it builds emotional nervousness too (Walrave & Heirman, 2011). Tragically, very slight consideration is specified to this worldwide issue by foundations of advanced education, educators, parentages and providers of disaster facility. The depressing impact of cyber bullying keeps pupils from exceeding expectations in education (Mark & Ratliffe, 2011). Cyber bullying in schools and colleges is bringing about unbelievable issues to schoolchildren, parentages and institutes. Unluckily, in the name of digitalization and modernization, nothing has been done for continuously trapped and victimized people (Balducci, Fraccaroli & Schaufeli, 2011). A stressful effect of bullying is heightened with the quick extension of technological progression (Patchin & Hinduja, 2011). Many victims of cyber bullies schoolchildren sustain soundlessly and hesitant to complain to parents or authorities and feel social shame (Limber, 2011). Accordingly, parents, teachers and educational authorities have serious concern for such actions. In this computerized space Cyber bullying is an online hostile conduct. Cyber bullying is an expression of associate hostility which can be as harming as any other type of conservative violence (Wong Lo & Bullock, 2011). (The issue investigated in this research concerns about the impact of cyber bullying on students' academic achievement.) Bullying similarly keeps students from accomplishing good grades. It appears that technology is in a few ways causing more stress on our young students in shape of cyber bullying as compared to help them, progress. Young students who get to be victims of cyber bullying endure great stress (Berlan, Corliss, Field, Goodman & Austin, 2010). Henceforth there is a dire need to comprehend the issues faced by the victimized people so that solid and proactive measures can be taken by educational authorities, teachers and parents to address this worldwide issue. Electronic harassment causes serious harm to an individual or individuals by revealing their personal information, the actual name of the criminals and their location for an abhorrent purpose of the individual or group. Threats, protests, provocative, racist or cultural talk, intimidation of homosexuals, attempts to infect a victim's computer, or filling a mailbox with a message, can include cyber bullying. According to Olivier (1993), some of the victims' symptoms are electronic bullying;

1. No mercy, weak, miserable and low self-esteem
2. Care, sensitive, quiet, extruded and protected.
3. Depression and occupation of their destructive ideas far more than their counterparts.

Similarly, when a person's name is used to distribute unwanted material over the Internet on the Internet, it is similar when it comes to assassinating criminals. Personal assassinations can be via email, chat room, SMS, contacts, social networking, Twitter, MySpace, Facebook, chat, chat panel, online forums, websites, invitations and sounds. Amazing is possible. More exploration suggests that cyberbullying has become a widespread and widespread global issue (Faryadi, 2011). The psychological and physical

The Gender Based Effect of Cyber Bullying on Academic Achievement and Behavior of Students at Higher Secondary Level effects of Internet abuse in our society and institutions (Bulut & Alci, 2014) should no longer be ignored. As long as social networks grow in cyberspace, they inevitably lead to the opening of Internet-free doors to mislead web users from young people who lack experience.

Material and Methods

Design of the Study

It was mixed method research in which quantitative and qualitative approaches were used to conduct this study

Population

Total 74,347 boys 73, 114 girls students enrolled in Public higher secondary schools of Gujranwala, Sialkot, Lahore, Sheikhpura, Nankana Sahib and Kasur. Total Boys teachers were 1,552 and Girls Teachers were 2,734 in above mentioned districts, which formulated the population of the study.

Sample

The researcher divided the province Punjab (Pakistan) into four regions and 6 districts selected randomly from the total 19 districts of central Punjab. The sampled districts were Gujranwala, Lahore, Sheikhpura, Kasur, Sialkot, and Nankana of Punjab. Eight schools from each of these sampled districts were taken randomly. Out of selected schools four schools (two boys and two girls) from rural areas and four (two boys and two girls) from urban areas were taken in the sample. 45 students were selected conveniently from each school who were available in school at the time of data collection. This way total 360 students were selected from each district and total 2160 students were selected from these six districts. Similarly, two teachers were selected from each school who were ready to provide information. This way sixteen teachers were selected from each district and total (96) teachers were selected for interview from these six districts.

Research Instruments

Two self-developed instruments were used for data collection:

1. Questionnaire for students
2. A semi structured interview schedule for Teachers

The questionnaire consisted of three parts.

1. The first part contained 20 items about cyber bullying.
2. The second academic results contained 10 items measuring academic achievement.
3. The third part contained 10 items measuring students' behavior.

A semi structured interview contained 10 semi structured items.

Administration of the Research Instruments

The researcher personally distributed and collected the questionnaires from the students. The response rate of returning questionnaires was 100%

Data Analysis

The Mean, Standard Deviation, Percentages, Frequencies, Independent Sample t-test, Post Hoc, Tukey test and One Way ANOVA was used.

Results and Discussion

Table 1

Variable	Area	N	M	SD	df	T	p	MD	η ²
Cyber	Urban	899	72.84	9.676	1911	0,016	0.987	0.007	0.001s
Bullying	Rural	1014	72.83	9.926					

The table shows that there is no significant difference in scores for Boys (M = 72.84, SD = 9.676) and Girls (M = 72.83, SD = 9.926; $t(1911) = 0.016$, $p = .0987$, two-tailed). The value of mean (72.84) indicated that the effect of cyber bullying on male students was higher as compared to the female students although this difference is very small. The magnitude of the differences in the means (mean difference = 0.007) was very small (Eta squared = 0.001). Therefore, it was concluded that there was no significant difference in the perception of Boys and Girls students about cyber bullying in terms of their area (urban and rural). Furthermore, the effects of cyber bullying on male students was slightly higher as compared to female students in terms of their area (urban and rural)

Table 2
Independent Sample t-test on Students' Academic Achievement (Marks) in terms of Area

Variable	Area	N	M	SD	df	T	P	MD	η ²
Academic	Urban	899	568.67	217.603	1911	0.911	0.362	9.050.	041
Achievement	Rural	899	559.62	216.203					

Marks

The table shows that independent samples t-test was conducted to compare the academic achievement scores for males and females students in terms of their area (urban and rural). There was no significant difference in scores for Boys (M = 568.67, SD = 217.603) and Girls (M = 559.62, SD = 559.62; $t(1911) = 0.911$, $p = .0911$, $p = 0.362$, two-tailed). The value of mean (568.67) indicated that the academic achievement of Boys students was higher as compared to Girls students in terms of their area (urban and rural). The magnitude of the differences in the means (mean difference = 9.051) was very small (eta squared = 0.041). Therefore, it was concluded that there was no significant difference in the academic achievement of Boys and female students in terms of their area (urban and rural). Furthermore, the academic achievement of male students was higher as compared to female students on the basis of their area (urban and rural)

Table3
Independent Sample t-test on Students' Behavior in terms of Area

Variable	Area	N	M	SD	df	t	P	MD
Students Behavior	Urban	899	30.86	7.324	1911	-0.994	0.320	-0.325
	Rural	1014	31.18	6.950				

The table shows that an independent samples t-test was conducted to compare the students' behavior scores for males and females on the basis of their area (urban and rural). There was no significant difference in scores for males (M=30.86, SD= 7.324) and females (M=31.18) indicated that the mean scores for the behavior of female students were calculated significantly higher as compared to the male students. The magnitude of the differences in the means (mean difference = -0.320) was very small (Eta squared= 0.03). Therefore, it was concluded that there was no significant difference in the behavior of male and female students on the basis of their area (urban and rural). Furthermore, the female students shows better behavior as compared to male students in terms of their area (urban and rural)

Table 4
Descriptive Statistics for MANOVA on cyber bullying as Independent Variable and Student Achievement and Student Behavior as Dependent Variables

Academic Achievement	Cyber Bullying	M	SD	N
	Low	25.68	8.983	44
	Average	31.50	6.324	130
	High	36.47	6.410	1739
	Total	35.88	6.773	1913
Student Behavior	Low	25.66	8.206	44
	Average	27.007	.056	130
	High	31.46	6.963	1739
	Total	31.02	7.133	1913

Table 4. Reflects the multi variance analysis on cyber bullying taken as independent variable and student achievement and student behavior as dependent variables. The variable cyber bullying was categorized as low, average, and high and given weights as 1 for low, 2 for average, and 3 for high. The effects of cyber bullying were calculated on the two dependent variables. This table shows descriptive statistics of the three variables. The students who were rated low on cyber bullying had a mean score of 25.68 and 25.66 on academic achievement and student behavior respectively. Students who were rated average on cyber bullying had a mean score of 31.50 and 27.00 on academic achievement and student behavior respectively. While, students who were rated high on cyber bullying had a mean score of 36.47 and 31.46 on academic achievement and student behavior, respectively.

Table 5
Post Hoc test of Tukey

Dependent variable	Cyber bullying	Cyber bullying	Mean Difference	Std. error	p
	Low	Average	-5.82	1.129	0.00
		High	-10.79	.988	0.000
	Low	High	-5.80	1.069	0.000

On applying the post hoc test of Tukey, following differences were revealed. Average and high cyber bullying had more effect on academic achievement as compared to the effect of low cyber bullying. The mean difference of low cyber bullying on academic achievement as compared to the effects of average cyber bullying on academic achievement was -5.82 and the mean difference of low cyber bullying on academic achievement as compared to the mean difference of high cyber bullying on academic achievement was -10.79. The significant difference of effects on cyber bullying on student behavior was between low cyber bullying and high cyber bullying. The mean difference between low and high categories was -5.80. All these difference were significant at $p < 0.05$.

Interview Analysis

Interviews were conducted from the teachers in order to deeply understand the problem and weigh their opinions on the cyber bullying as well. Following was the analysis of the interviews. The questions were divided into sub-questions to understand the problem in detail.

What are the views of teachers about cyber bullying and its factor faced by students in public sector higher secondary schools?

- To know the answer of this question, sub-questions were asked.
- Do you think children are aware of cyber bullying? If yes, then who are more aware, boys or girls?

Most of the teachers narrated that students are aware some teachers said boys and girls are equally aware, only few teachers said boys are more aware.

- What are the factors of cyber bullying in your opinion?

Following were the factors highlighted by the teachers during interview.

Most highly rated factor was 'insufficient guidance and counseling'; seven participants rated this reason as a factor. The next in turn factor was 'lots of interaction between the two genders 'Not educating youth' was rated as the next common factor highlighted by most of the participants. Other factors pointed out by the teachers were, frustration, frequent use of internet, feeling of power over others' emotions, lack of moral values, disclosing personal information, jealousy, and influence of western culture.

- Is cyber bullying common among students these days? What is your opinion?
To answer to this question all participants said that yes cyber bullying is common these days among students.

What is teachers' opinion about the effects of cyber bullying on students' academic achievement and their' behavior? This question was divided into sub-questions to know the opinion of teachers in detail.

In your view can academic achievement be effected by cyber bullying? In response to this question, most of the teachers added that yes cyber bullying affects academic achievement of the students. Few participant expressed their views in the following words, "It does not effects directly, but indirectly it does effects academic achievement, as in some cases students lose concentration level resulting in low academic achievement."

- Is cyber bullying affecting the academic achievement of boys or girls or equally effecting both? Few were the participants who said that it effects the boys and girls in the same way. Interestingly, some said that boys are prone to get affected as they are more frequently using internet and get victim more often.
- Does cyber bullying play any role in influencing the students' behaviors? If yes, in what particular ways?

All participants said yes that the behavior of the students is affected by the cyber bullying. Some said that the students get aggressive; others said that it gets them frustrated. Majority of the participants were of the view that it kills their social life and the affected students stick to isolation.

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- Does Cyber bullying play any role in student achievement or in student behavior? Most of the participants of this research said that cyber bullying affects the behavior more than academic achievement. Only few participants told that both achievement and behavior are equally affected.
- What suggestions can you give for controlling cyber bullying?
- To know the answer of this question, this question was further divided into sub questions.
- How can cyber bullying be controlled?

Following suggestions were received from the participant teachers when they were asked to suggest ways of controlling cyber bullying. Religious preaching, character building, healthy activities, co-curricular activities and sports, and by keeping strict eye on the students.

Majority of the participants believed that parents can play pivotal part in controlling the cyber bullying. A participant expressed his views in these words, "parents need to see what use of technology their kids are making. Strict check and balance and accountability by the parents is the only solution to control cyber bullying in the kids."

- What role teachers can particularly play in controlling cyber bullying?

"Teachers have a great role to play in controlling cyber bullying. Least they can do is to make the students strong mentally and morally" said by one participant, when asked to highlight the role of teachers in controlling cyber bullying. "Teachers can discuss such issues in classrooms, and give healthy activities to the students" was the opinion of another participant. Another participant gave a practical approach to solving this problem by adding, "Teachers can play an important role but all is fruitless until they create a sense of real application in their students." Only one participant was of the view that "normally the teachers are of previous century they themselves hardly know about cyber bullying, therefore, it is difficult for the tutors to play any role in controlling cyber bullying." Overall the teachers believed that teachers can very much play a role in controlling such disturbing actions.

Findings

1. The effects of cyber bullying on male students was slightly higher as compared to female students in terms of their area (urban and rural). (Table 4.12)
2. There was no significant difference in the perception of male and female students about cyber bullying in terms of their area (urban and rural). (Table 4.12)
3. The academic achievement of male students was higher as compared to female students on the basis of their area (urban and rural). (Table 4.13)

4. There was no significant difference in the academic achievement of male and female students in terms of their area (urban and rural). (Table 4.13)
5. The female students showed better behavior as compared to male students in terms of their area (urban and rural). (Table 4.14)
6. There was no significant difference in the behavior of male and female students on the basis of their area (urban and rural). (Table 4.14)

There are no significant effects of cyber bullying on students' academic achievement and

on their behavior in terms of their Area . Cyber bullying equally affects boys and girls of public sector higher secondary schools.

Conclusions

The data analysis showed that there were no significant effects of cyber bullying on the students' academic achievement and students' behavior in terms of their area basis. It meant that cyber bullying had not significant effects on the boys and girls belonging to the public sector higher secondary schools of six districts of central Punjab i.e. Gujranwala, Sialkot, Lahore, Sheikhpura, Nankana Sahib and Kasoor. Bauer, Lozano and Rivara (2007) explored the effects of demographic variables on cyber bullying. They concluded that Boys and Girls students had same perception about cyber bullying. The findings of current study verified the findings of (Bauer, Lozano, &Rivara, 2007).

Recommendations

Based on the above conclusions and discussion, following recommendation would be suggested;

1. Different activities may be conducted in schools to spread awareness about cyber bullying in schools.
2. Training sessions should be arranged inside the schools to introduce ways to manage cyber bullying for students.

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