Research Article

Open Access

CrossMark

Cyberbullying among adolescents: frequency and characteristics

Abstract

Background: Cyberbullying is commonly present as affecting in adolescent population. Current research suggests that cyberbullying occurs mostly in secondary education. There was a total of 186 students who participated in this study. It was found that there was a significant association between cyberbullying and cyber victimization which suggest that cyber victims have the tendency to be cyberbullies and vice versa. Moreover, more than half of the victims do not report cyberbullying phenomena to adults. It was also found out that schools were the least medium for adolescent to learn safety strategies online.

Keywords: cyberbullying, adolescents, victimization, online

Charisse Vitto
Department of Sociology, Sakarya University, Turkey

Correspondence: Charisse Vitto, Department of Sociology, Sakarya University, Esentepe Kampusu, Serdivan, Sakarya, Turkey, Tel +90 5531243416, Email charissevitto17@gmail.com

Introduction

The internet, which has technologically and socially complex structure, is now widely used all over the world. The widespread use of internet, electronic mail, web pages, instant messages, video chat rooms, chat rooms, social networking sites, blogs, and short messages establish a new social communication which have never been experienced by individuals before. According to Holfeld[1] this social communication opportunity offered by internet mostly affects adolescents because they are faced with a world based on technology since they were born.[1]

This is also the reason why adolescents are easy to adapt to technological advancements. Thus, view internet as an indispensable part of their lives.[2] However, this leads to an adolescents' different pattern of socialization.[1] Adolescents usually perceive that internet is a platform to meet and spend time with their peers.[3] On the other hand, there are adolescents who are more comfortable to communicate using the technology.[4]

Through the use of internet, adolescents are able to communicate with their peers anytime and anywhere they want.[4] Nevertheless, internet also offers a wide range of social interaction which cannot be controlled easily. This causes adolescents to easily create number of peer groups online. The difficulty of controlling these peer groups online may also create groups to become cyberbullies.[5] Cyberbullying is any behavior performed through electronic or digital media by individuals or groups who repeatedly communicate hostile or aggressive messages intended to inflict harm or discomfort on others.[6]

A Cyberbully is a person who uses electronic means to intentionally harass others. A victim of cyberbullying is a person who has experienced harassment or threats through electronic means[4] Cyberbullying manifests through four primary forms: chat rooms, instant messaging, emails, and text messaging.[7–11]

Cyberbullies exhibit assaults on the victims in various forms. For example, they can make changes on the victim's photos and share them on various social networks. They can share the victim's secrets through different social media or make an open web page for anyone else to see photos, videos, and information about their victims. Another way of cyberbullying is to socially exclude (ie delete or block) friends from their common acquaintances.[12]

Cyberbullying is a more complex process than the traditional violence and peer bullying behaviors observed among adolescents. The behavior of traditional violence and peer bullying usually occur at school, garden, or on the road to school. This means, the victims of these events are only exposed to abuse during and around school hours. If they return to their homes, the pressure of bullying may be away for a while. However, cyberbullying occurs on the internet.[13]

The spread of bullying between adolescents is associated with social and emotional changes that occur in adolescents' lives. They can move without thinking about the consequences of their behavior because they are generally focused on enjoying the effects of their developmental changes and can easily be part of risky experiences.[12] Cyberbullying is one of the risky experiences that impulsive adolescents participate in order to find their excitement, to have fun and to prove their power.[14] For this reason, it is stated that some adolescents imitate their behaviors after observing the students bullied at school numerous times, and after a while they have transformed these aggressive behaviors into a part of their personality. In this recurrent process, many students participate in bullying and reinforce each other's bullying behaviors.[15] In addition; the nature of the internet is one of the factors that affect adolescents' participation in bullying. This is because the internet allows individuals to act with confidential identities.[16] this study aimed to investigate the prevalence of cyberbullying among adolescents in Mangatarem, a small town in Philippines. There was a total of 186 respondents who participated in this survey.

Significance of the study

Studying the extent means and prevalence of cyberbullying phenomena among Filipino adolescents in a small town of Philippines in Pangasinan may assist educators and administrators to effectively address cyberbullying problem in their respective schools. It may help educators and administrators to create healthy communication platforms among students, parents, and the institution that may help to fight against cyberbullying.

Research purpose

This study aimed to determine the extent and prevalence of cyberbullying phenomena among adolescents by answering the following research questions:

a) Is there any relationship between cyberbullying behavior of the adolescents and their demographic profile such as gender, school grades, and internet usage?

b) Is there any relationship between cyberbullying and cyber victimization?

c) From whom were adolescents learnt safety strategies online?

d) Who were the cyber perpetrators?

e) To which extent cyber victimization occur?

f) Which mediums did cyberbullying occur the most?

g) Do cyber victims inform adults when they are cyber bullied?

Methods

Design and sample

This survey study was conducted during the Fall Semester 2017 in Sakarya, Turkey. The participants were adolescents from the age group of 13-18 years old. There was a total of 186 adolescents who participated in this study from a small town in Pangasinan, Philippines. The participants were gathered through a purposive sample technique.

Instrument

The instrument used was adapted from Li[16] study on "Bullying in the new playground: research into cyberbullying and cyber victimization." The survey consisted of demographic profile questions such as gender, grade level, age, school grade average, and internet usage. There were 15 questions regards to the prevalence of cyber bullying behavior and victimization.

Procedures

An online survey through Google Forms was used to determine the prevalence of cyberbullying and victimization among adolescents in the Pangasinan, Philippines. An online survey was the chosen method of data collection due to widespread computer and email accessibility. In addition, the method required minimal time and cost to the study respondents. The self-administered survey guided the respondents through the online questionnaire. The estimated time to complete the survey was approximately 5 minutes.

Data analysis

Descriptive statistics were generated to examine quantitative data. Quantitative data included variables such as their demographic profile, safety strategies on the internet, cyberbullying perpetrators, cyberbullying frequency, technological platforms of cyberbullying behavior, and informing adults on cyberbullying victimization. Pearson correlation was used to analyze the relationship between the cyberbullying behavior and their demographic profile. Crosstabs were used to describe the frequency of cyberbullying behavior according to their demographic profile. Correlation analysis was run to know the association between cyberbullying and victimization. Survey response data were first re-coded in the MS Excel software and then finally encoded to SPSS 25 software package. Then survey responses were aggregated and percentages calculated. Results were displayed in narrative, table, and graphic formats were included in the final study report.

Results

Table 1 shows that 53. 8 % of the respondents were females (n=100) and 46. 2% were males (n=86). Forty-eight- point nine percent (n=91) of them were in 9 or 10 grade level; 44.6 % (n=83) were in 11-12 grade levels; and 6.5% (n=12) were in 7-8 grade levels.

When it comes to their school grades, 67.7% (n=126) described their grades as above average while 32.3% (n=60) of them have average school grades.

Table I Demographic profile

Gender	Frequency	Percentage
Female Male	100	53.8
	86	46.2
Grade Level		
07-Aug	12	6.5
09-Oct	91	48.9
11-Dec	83	44.6
School Grades		
Below average	0	0
Average	60	32.3
Above Average	126	67.7

Table 2 indicates that in terms of gender, out of 100 females 52% (n=52) of them reported that they never experienced cyberbullying victimization while 48% (n=48) of them reported that they became victims at least one time in their life. On the other hand, 29% (n=29) of them experienced to be cyberbullying perpetrators and 71% (n=71) of them were not. Furthermore, out of 86 male respondents, 47% (n=40) of them had experienced to be cyber bullied while 53% (n=46) of them were not. However, 60% (n=52) of them experienced to be cyberbullying perpetrators while 40% (n=34) of them were not. However, there was no significant relationship between gender and cyberbullying victims. ($\chi(1)=0.041$, $p=0.839$); similar between gender and cyberbullying perpetrators ($\chi(1)=2.291$, $p =130$).

There was a significant relationship between school grade level and cyberbullying victims ($\chi(1)=5.720$, $p>0.017$). This means that student with above average grades (n=52) and average grades (n=74) were not likely to be cyberbullying victims. However there was no significant difference between school grades and cyberbullying perpetrators ($\chi(1)=3.122$, $p=0.078$). In terms of internet usage, 47% (n= 83) of the students who use the internet everyday were a victim of cyberbullying while 53% (n=94) of them were not. On the other hand, 66% (n=117) of students who use the internet everyday were not cyberbullying perpetrators. However, there was no significant relationship between internet usage and cyberbullying victims. ($\chi(3)=2.295$, $p=0.513$); similar between internet usage and cyberbullying perpetrators ($\chi(3)=1.277$, $p=0.735$).

Table 3 shows that there is a positive correlation between cyberbullying victimization and cyberbullying perpetrators ($r=0. 255$; $p<0.01$).

Table 4 shows that 28.5% of the respondents do not know the safety strategies on the internet. However, 72.5% (n=133) of them know the safety strategies to prevent from cyber bullying, 34.4% (n=64) of them were self- taught; 18.3% (n=34) of them were taught by parents; 18.3% (n=34) of them were taught in schools.

Table 5 shows that 74.7% (n=59) of cyberbullying perpetrators are school mates of cyberbullying victims. This is followed by 13% n=13) of unknown people of the victims and 8.8% are people outside their school.

Table 2 Demographic Profile and Cyberbullying behavior

		Cyberbullying victims				Cyberbullying Perpetrators			
		Yes	No	Total	Pearson Chi- square tests	Yes	No	Total	Pearson Chi- square tests
Gender	Female	48	52	100	χ(1)=0.041, p = .839.	29	71	100	χ(1)=2.291,
	Male	40	46	86		34	52	86	p = .130.
Total		88	98	186		63	123	186	
School grades	Above average	36	52	88	χ(1)=5.720, p = .017* *significant at 0.05 level	15	45	60	χ(1)=3.122, p = .078.
	Average	24	74	98		48	78	123	
Total		60	126	186		63	123	186	
Internet Usage	Everyday	83	94	177	χ(3)=2.295, p = .513.	60	117	177	χ(3)=1.277, p = .735.
	Less than 4x a week	4	3	7		3	4	7	
	Less than a month	1	0	1		0	1	1	
	Others	0	1	1		0	1	1	
Total		88	98	186		63	123	186	

Table 3 Relationship between Cyber victimization and Cyberbullying

	N	r	p
Cyber victimization and Cyberbullying	186	0.255	0.001

Table 4 Safety Strategies on the internet

	Frequency	Percent
No	53	28.5
by myself	64	34.4
taught by parents	34	18.3
taught in schools	34	18.3
others	1	0.5
Total	186	100

Table 5 Cyberbullying perpetrators

	Frequency	Percentage
School mates	59	74.7
People outside the school	7	8.8
Unknown	13	16.5

Table 6 shows that 63.6% (n=49) of the cyber victims have been bullied less than 4 times in their life while 30% (n=15) have been bullied 4-10 times and 13% (6.4) of them have been bullied over 10 times in their life.

Table 6 Cyberbullying victimization frequency

	Frequency	Percentage
Less than 4 times	49	63.6
4-10 times	15	30
Over 10 times	13	6.4

Table 7 shows that out of 88 cyber victims, 59% (n=52) of them experienced cyberbullying through cell phone, 53.4% (n=47) experienced it through chat, and 5.6% (n=5) experienced it through email. On the other hand, out of 63 cyber perpetrators, they usually do the cyberbullying in cell phone (55.5%; n=35) and chat (55.5%; n=35) while 7.9% (n=5) of them do it via email.

Table 7 Technological platforms of cyberbullying perpetration and cyber victimization

	Email		Chat		Cell phone	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Cyber perpetration	5	7.9	35	55.5	35	55.5
Cyber victimization	5	5.6	47	53.4	52	59

Table 8 shows that out of 88 cyber victims, 55.7% (n=49) do not tell adults whenever they were cyber bullied, only 44.3% (n=3) reported that they tell adults whenever they are cyber bullied.

Table 8 Cyber victims and informing adults

	Informing adults when they are cyber bullied			
	Yes		No	
Cyber victims	Frequency	Percentage	Frequency	Percentage
	39	44.3	49	55.7

Discussion and conclusion

According to the demographic profile of the respondents, more than half of the total respondents are female. Majority of them are in grades 9-10 level and have above average grades.

Based on Pearson Chi-square tests done between their demographic profile (ie gender, school grades, and internet usage) and cyberbullying penetrations, there was no significant association between them. This is similar between their demographic profile and cyberbullying victimization except for their school grade where in it was found that

students who have higher graders tend to be less cyber victims than those who were not. Student academic achievement, as measured by students' self-reported grades, accounts for minimal variance in cyberbullying and cyber victimization. This indicates that students' academic learning has minimal effect on cyberbullying and cyber victimization. This is somewhat different from previous research into bullying indicating that academic pressure can help reduce bullying.[17]

It can be observed based from frequency, most of the Cyberbully victims are females and cyber perpetrators are males. According to Li[16] when gender was considered, significant differences were identified in terms of bullying and cyberbullying.[16] Males were more likely to be bullies and cyberbullies than their female counterparts. In addition, female Cyberbully victims were more likely to inform adults than their male counterparts. Female cyber bullying often differs from that of males because females in general have different ways of interacting with one another. Boys tend to be more aggressive than girls and are often more involved in bullying. It was found in this study that greater percentages of those who use the internet everyday are cyber victims than cyber perpetrators. According of the study of Savoldi, Abreu among the respondents who claimed to have suffered more bullying than cyberbullying during the last 12 months, there are no big differences between heavy Internet users and moderate users.[18]

In this study, there was a positive correlation between cyberbullying perpetrators and victimization. This is similar with the study of Sali, Basak & Akca[19] wherein it has found that cyber victims have also the tendency to be cyber bullies and cyber bullies can also be cyber victims.[19]

Moreover, according to the respondents, most of them know the safety strategies on the internet to protect themselves from cyberbullying. Most of them have learnt the strategies by themselves, followed by their parents and the school. However, most of the cyber perpetrators are victims' school mates followed by people outside their schools and people they even do not know. Victims were bullied at least one time in their lives but there are victims who suffered even over 10 times. Furthermore, cyber perpetration and cyber victimization are usually done through cell phone followed through chat. Text messaging harassment on cell phone also represents a common form of cyberbullying. According to research published by the Cyberbullying Research Center in 2010, cell phone usage and text messaging represent the most common technology uses for teens According to cyber victims, more than half of them do not inform adults such as their parents or teachers when they are cyber bullied. Being victimized by bullying can have significant consequences leaving victims feeling alone, isolated and humiliated. And yet many targets do not tell a single person what is happening to them. The reasons are diverse and vary from person to person. But in general, cyber bullying is scary and confusing when it first happens. This fact leaves most tweens and teens unsure how to handle the situation. As a result, they keep silent while they try to figure it out.[20]

Recommendations

Cyberbullying can be done and experienced by anyone regardless of gender and age. It has been found that in this study; most of the victims do not report cyberbullying to their teacher or parents nor any adults. Furthermore, most of them do not learn safety strategies online in school. Because of this it is recommended that schools need to create an action plan to address the awareness and the scope of the cyber bullying problems at school through student and staff surveys.

Parents need to be the ones their kids go to when something is wrong. However, parents are often the last ones to know about problems. So, it is necessary to have a parents' discussion to be conducted by school administrators regarding cyberbullying.

Funding

Acknowledgments

Conflicts of interest

The author declared no potential conflict of interests with respect to the authorship and/or publication of this article.

References

1. Holfeld B. Perception and attributions of bystanders to cyberbullying. *Computers in Human Behavior.* 2014;38(1):1–7.

2. Bourassa CAL. *Student cyberbullying: Raising awareness for school counselors (Master's thesis).* University of Wisconsin-Stout: School Counseling; 2012. 43 p.

3. Whitlock JL, Powers JL, Eckenrode J. The virtual cutting edge: The Internet and adolescent self-injury. *Developmental Psychology.* 2006;42(3):407–417.

4. Patchin J, Hinduja S. Bullies Move Beyond the Schoolyard A Preliminary Look at Cyberbullying. *Youth Violence and Juvenile Justice.* 2006;4(2):148–169.

5. Cassidy W, Jackson M, Brown KN. Sticks and stones can break my bones, but how can pixels hurt me? Students' experiences with cyber-bullying. *School Psychology International.* 2009;30(4):383–402.

6. Tokunaga RS. Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior.* 2010;26(3):277–287.

7. Diamanduros T, Downs E, Jenkins SJ. The role of school psychologists in the assessment, prevention, and intervention of cyberbullying. *Psychology in Schools.* 2008;45(1):693–704.

8. Finn J. A survey of online harassment at a university campus. *Journal of Interpersonal Violence.* 2004;19(4):468–483.

9. Raskauskas J, Stoltz AD. Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology.* 2007;43(3):564–575.

10. Smith PK, Mahdavi J, Carvalho M, et al. Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry.* 2008;49(4):376–385.

11. Willard N. An educator's guide to cyberbullying, cyberthreats and sexting. 2004. 16 p.

12. Bhat CS. Cyberbullying: Overview and strategies for school counsellors, guidance officers, and all school personnel. *Australian Journal of Guidance and Counselling.* 2008;1(1):53–66.

13. Campell M. Cyber bullying: An Old Problem in a New Guise? *Australian Journal of Guidance and Counselling.* 2005;15(1):141–149.

14. Salmivalli C. Bullying and the peer group: A review. *Aggression and Violent Behavior.* 2010;15(2):112–120.

15. Anderson KLM. *Cyber-bullying: The new kid on the block (Master's thesis).* California State University: Department of Teacher Education; 2012. 160 p.

16. Li Q. New bottle but old wine: A research of cyberbullying in schools. *Computers in Human Behavior.* 2007;23(4):1777–1791.

17. Ma X. Bullying and being bullied: To what extent are bullies also victims? *American Educational Research Journal.* 2001;38(2):351–370.

18. Savoldi F, Abreu P, Alvares A. Bullying, cyberbullying and Internet usage among young people in post-conflict Belfast. *Journal of Cogent Social Sciences.* 2016;2(1):1132985.

19. Sali Basak, Akca. Cyberbullying among Middle School Students in Turkey. *Anadolu Journal of Educational Sciences International.* 2015;5(2):1–22.

20. Sherri Gordon. *8 Reasons Why Kids Cyberbully Others*. 2016.