

The Investigation of Predictors of Cyberbullying and Cyber Victimization in High School and University Students

Abstract

Information and communication technologies catch the attention of people via media that some problems like cyber bullying and cyber victimization are also increased with technological developments. The aim of this study is to examine the effects of gender, frequency of internet usage, perceived academic achievement on cyber bullying, and victimization. The research sample consisted of 151 (76 female, 75 male) high school and university students. Demographic Information Form, Cyber Bullying and Cyber Victimization Scales were administered to the participants. According to the results of the Mann Whitney U-test, males were more likely to be cyberbullies than females; however, they were also more likely to be victims. In the correlational analysis, it was determined that cyberbullying correlated positively with cyber victimization. Furthermore, multi regression analysis showed that cyberbullying was predicted by perceived academic achievement. However, the results of the multi regression analysis indicated that cyber victimization was predicted by frequency of internet usage.

Keywords: cyber bullying, cyber victimization, frequency of internet use, perceived academic achievement

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Introduction

Technological developments provide some opportunities like discovering the world, learning and having fun.¹ Also, technological developments catch attention of people via media. Moreover, they cause the easy access to some web sites that are related with sex, violence, substance use.² Although information and communication technologies provide new, comfortable and useful places, they cause some problems like cyber bullying and cyber victimization.³ Some researches supported that cyber victimization causes unjust suffering. People are subjected to harmful behaviors via information and communication technologies and they have both financial and emotional damage.⁴ People who are cyber victims reported that their experiences were very stressful.³ Cyber bullying is defined as using information and communication technologies repeatedly to harm people intentionally.² It can be said that cyber bullying harm people via SMS (Short Message Service), taking photo and video with mobile phone camera, harassing people via mobile phone, chat rooms, e-mail, web sites.⁵ Keith et al.,⁶ supported that girls are more prone to be cyber bullies than boys. Wolak and etc. (2007) also supported the idea that cyber bullies are generally girls.^{6,7} However, Erdur-Baker et al.,⁸ thought that boys are more prone to be cyber bullies than girls.⁸ Besides them, according to Hinduja et al.,⁹ there is not significant difference between boys and girls in terms of cyber bullying.⁹ In terms of cyber victimization, girls experience more cyber victimization than boys.¹⁰ Moreover, according to some studies there is not significant difference between boys and girls in terms of cyber victimization.¹¹

Besides, academic achievement affects all lives of adolescents. Huang et al.,¹² supported that academic achievement does not have significant effect on cyber bullying.¹² Eroglu et al.,¹³ supported that academic achievement is the important predictor of both cyber bullying and cyber victimization.¹³ It can be said that lower academic achievement is a risk factor for being cyber victim.¹⁰ Beran and Li (2005) found that cyber victimization and academic achievement have

significant relationship.¹ Furthermore, Ceyhan, Ceyhan et al.,¹⁴ said that the duration of internet use is also related with being cyber bully and cyber victim that if duration of internet use is too long, the effects of cyber bullying and cyber victimization will increase.¹⁴ Ybarra et al.,¹⁵ also supported that internet use is the important predictor of both cyber victimization and cyber bullying.¹⁵

Method

Participants

This study is a quantitative study and descriptive method was used. Participants were included from high school and university students who live in Istanbul. This study was applied to 151 (76 female and 75 male) students who study in Bakırköy High School and Haliç University, Istanbul University in Psychology Department, Computer Engineering Department and Department of Business 1, 2, 3, 4 classes and in 2015-2016 school year. Students participated to the study voluntarily. The ages of participants are between 18 and 25.

Measures

Demographic Information Form, Cyber Bullying and Cyber Victimization Scales were applied to students. Demographic Information Form was developed by the researcher. Cyber Bullying and Cyber Victimization Scales were developed by Arıcak et al.,⁴ SPSS 17.0 program was used to analyze the data.⁴

Procedure and data analysis

To test whether cyber bullying and cyber victimization are related with gender or not, Mann Whitney U Test was used. Moreover, correlational analysis was applied to determine the relationship between cyber bullying and cyber victimization. Furthermore, multi regression analysis was applied to determine the predictors of cyber bullying and cyber victimization (Table 1).

Table 1 Gender of participants

Group	Frequency	Percent	Valid Percent	Cumulative Percent
Female	76	50.3	50.3	50.3
Male	75	49.7	49.7	100
Total	151	100	100	

Results

Totally, 151 (75 male and 75 female) students were participated to the study. The ages of them are between 18 and 35 (Table 2). 17 high school and 134 university students participated to this study (Table 3). There is significant difference between male and female in terms of cyber victimization, $U=780$, $p<0.05$. Cyber victimization scores of males are higher than females (Table 4). There is significant difference between males and females in terms of cyber bullying, $U=2000.500$, $p<0.05$. The cyber bullying scores of males are higher than females (Table 5). According to Table 3, there is significant and positive relationship between cyber bullying and cyber victimization ($r=.174$,

$**p<.05$) (Table 6). There is moderate and significant correlation between duration of internet usage, academic achievement, gender and cyber bullying, $R=0.503$, $R^2=0.253$. Three variables together predict % 25 of cyber bullying. According to standardized regression coefficients (β), only perceived academic achievement has significant effect on cyber bullying ($\beta=0.460$, $t=6.388$, $p=0.000$) (Table 7). There is high and significant correlation between duration of internet use, academic achievement, gender and cyber victimization, $R=0.954$, $R^2=0.910$. Three variables together predict % 91 of cyber victimization. According to standardized regression coefficients (β), only duration of internet use has significant effect on cyber bullying ($\beta=.944$ $t=34.828$, $p=.000$).

Table 2 Education of participants

Group	Frequency	Percent	Valid Percent	Cumulative Percent
High School	17	11.3	11.3	11.3
University	134	88.7	88.7	100
Total	151	100	100	

Table 3 Differentiation of cyber victimization according to Gender

Group	n	Mean of Row	Sum of Row	U	P
Female	76	52.5	3150	1320	0
Male	75	90.83	8175		

Table 4 Differentiation of cyber bullying according to gender

Group	n	Mean of Row	Sum of Row	U	P
Female	76	64.82	4926.5	2000.5	0
Male	75	87.33	6549.5		

Table 5 Pearson correlation analysis

S. No	Variables	1	2
1	Cyber Bullying	-	0.174*
2	Cyber Victimization	0.174*	-

** $p<0.05$

Table 6 Multiple regression analysis as predictors of cyber bullying

Variables	B	Standard Deviation	β	t	p
Constant	26.539	1.361	-	19,503	0
Duration of Internet Usage (hour)	0.336	0.22	0.12	1.529	0.128
Perceived Academic Achievement	2.322	0.364	0.46	6.388	0
Gender	0.464	0.687	0.053	0.676	0.5
R=0.503		R2=0.253			
F(3,147)=16.569		p=0.000			

Table 7 Multiple regression analysis as predictors of cyber victimization

Variables	B	Standart Deviation	β	t	p
Constant	21.229	0.891	-	23.813	0
Duration of Internet Usage (hour)	5.02	0.144	0.944	34.828	0
Percieved Academic Achievement	-0.057	0.238	-0.006	-0.24	0.811
Gender	0.444	0.45	0.027	0.986	0.326
R=0.954	R ² =0.910				
F(3,147)=497.342	p=0.000				

Discussion

Campbell supported that cyber bullying has been common in all over the world especially in England, ABD, Canada, and Japan.¹⁶ Furthermore, according to the results of a study, cyber bullying and cyber victimization have negative effects on psychosocial development and academic achievement of youths.¹ Moreover, Sahin et al.,¹⁷ also found that cyber bullying damages personal, social, emotional and psychological development of teenagers.¹⁷ According to the results of this study, cyber bullying scores of boys are higher than girls. It can be said that boys are more prone to be cyber bullier than girls. Peker et al.,¹⁸ also supported this finding that boys experience more cyber bullying than girls.¹⁸ However, according to Eroglu et al.,¹⁹ girls bully more than boys.¹⁹ However, there are some studies in the literature that support that there is not significant difference between boys and girls according to cyber bullying.⁹ Moreover, according to the results of this study, there is significant difference between boys and girls according to cyber victimization. Boys are experienced more cyber victimization than girls. Wolak⁷ also supported this finding that boys are more prone to be cyber victim than girls.⁷ However, there are some different findings that girls experience more cyber victimization than boys.²⁰ Besides them, according to some studies, there are not significant difference between boys and girls in terms of cyber victimization.¹¹ Cyber bullying consists relational bullying types that can be the reason of the differences between research findings. In Turkey, boys and girls have different socializing processes that can be the another reason of this finding. Girls are brought up under inspection and girls are expected to control their aggressive attitudes in Turkey.²¹ That's why girls cannot behave aggressively in daily life and they try to compansate this situation with cyber bullying.

According to the results of this study, percieved academic achievement has significant effect on only cyber bullying. Academic achievement of cyber bulliers are higher than others. The research that was organized by Li²² supported this finding that 34 % of cyber bulliers have higher academic achievement than average, 57 % of them have average academic achievement and 4 % of them have lower academic achievement than average.²² Moreover, 48% of cyber victims have higher academic achievement than average 2 % of them have lower academic achievement than average. Besides them Mitchell²³ supported that academic achievement does not have significant effect on both cyber bullying and cyber victimization.²³ Besides them, it was found in this study that only duration of internet use has significant effect on cyber bullying. Erdur-Baker et al.,⁸ supported that there is significant relationship between internet use and cyber victimization and cyber bullying.⁸ However, Li²⁴ found that there is significant but low relationship between internet use and cyber bullying. Moreover according to Li,²⁴ there is not significant relationship between cyber

victimization and duration of internet use.²⁴ Preventing and coping programs should be developed to protect students from negative effects of cyber bullying. Instead of waiting the progress of problem, trying to prevent the problems at the beginning will be helpful to protect students from cyber bullying. Prevention is better than acting after the events that it will be helpful to protect students from emotional and economical effects of bullying. Furthermore, it can be said that getting information about the features of cyber bullying will be helpful and effective to develop prevention and coping programs. Besides them, Li²² supported that preventing and coping programs should be organized with participation of school, family and society.²²

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Conflicts of interest

The author declares there are no conflicts of interest.

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