EXPLORING THE DISTANCE EDUCATION STUDENTS' CYBERBULLYING, CYBERVICTIMIZATION AND CYBERBULLYING SENSIBILITY LEVELS

Assist. Prof. Dr. Hasan OZGUR
Faculty of Education, Trakya University
Edirne, TURKEY

ABSTRACT

The purpose of present research is to detect cyberbullying, cybervictimization and cyberbullying sensibility levels of distance education students and analyze these levels with respect to several variables. The research has been patterned on relational screening model. Study group consisted of 297 distance education students studying at university in Marmara region during fall term of 2012-2013 academic year. Data have been obtained via cyberbullying scale, cybervictimization scale and cyberbullying sensibility scale. In the analysis of obtained data descriptive statistics, Mann Whitney U, Kruskal Wallis H and correlation tests have been utilized. Obtained findings manifested that distance education students received low scores on cyberbullying and mid level scores from cybervictimization; that they possess high sensibility towards cyberbullying and there is statistically meaningful differentiation between cyberbullying and cybervictimization. It has also been detected that the increase in Internet usage has accelerating effect on cyberbullying and cybervictimization and that there is correlation between cyberbullying and cybervictimization. Furthermore it has been revealed that compared to female students male students are engaged in higher levels of cyberbullying and they become cybervictimized more frequently.

Keywords: **Cyberbullying, Cybervictimization, Cyberbullying Sensibility, Distance Education.**

INTRODUCTION

Recent rise in the use of information and communication technologies has correspondingly altered people's learning methods and tools, social communications and sense of fun to a higher extent. In addition to the great changes information and communication technologies has introduced into people's social lives, it has -as expected from any technology- also brought about with itself several adversities (Shariff, 2009; Yaman, Eroglu & Peker, 2011). Uncontrolled use of information and communication technologies has triggered the rise of conflicts in human relations, deteriorations in mental health and emergence of new addiction types originating from information and communication technologies (Ceyhan & Ceyhan, 2008; Chak & Leung, 2004; Hinduja & Patchin, 2008).

Abuse of information and communication technologies has triggered the birth of a new bullying type called cyber bullying. In relevant literature cyber bullying has many other corresponding terms such as virtual bullying, electronic bullying (Willard, 2005), techno bullying and online bullying (Akbulut, Sahin & Eristi, 2010). In the words of Campbell

(2005), cyberbullying is using various forms of technology such as electronic mail, instant messaging, chat rooms and websites to psychologically torment other parties.

Hinduja and Patchin (2010) on the other hand explain cyberbullying as intentional and repetitive usage of computers, mobile phones and similar electronic tools to torment others. Mason (2008) reports that cyberbullying is the use of communication technologies for the aim of sending or publishing coarse notes and/or images by a person or group to another person or group to intentionally and repetitively harass or threaten the addressee. In a broader definition cyberbullying is described as the sum of all behaviors (Aricak, 2011; Belsey, 2007; Lacey, 2007; Yaman et al., 2011) conducted via computers, mobile phones and other communication technologies to cause damages in a person's or group's social or technical connections and this social attack has an intentional and repetitive character. According to Willard (2005) cyberbullying is sending furious and coarse messages, harassing the addressee by sending repetitive and frequent insult messages, sending defaming or humiliating messages to undermine addressee's reputation and friendships, by pretending to be someone else, sending graphic or text messages to unease the addressee or to undermine addressee's reputation and friendships, sharing on electronic environment private or humiliating information or photos of people, obtaining a person's personal secrets or humiliating personal information and employing certain methods to publish such information on virtual environment, intentionally and brutally discarding a person from an online group or environment, continuous and intense harassment or critical traumatization and defaming of the addressee.

In literature as researches on cyberbullying are analyzed with respect to gender variable it can be observed in some researches that males are more inclined towards cyberbullying when compared to females (Ayas & Horzum, 2012; Calvete, Orue, Estévez, Villardón & Padilla, 2010; Cetinkaya, 2010; Erdur-Baker, 2010) whereas some research findings have contrarily manifested that girls are more inclined towards cyberbullying behaviors than boys (Agatston, Kowalski & Limber, 2007; Keith & Martin, 2005; Li, 2006). As researches on cyberbullying are analyzed with respect to cybervictimization, some researchers claim that girls face greater levels of victimization than boys (Mesch, 2009; Ybarra, Mitchell, Wolak & Finkelhor, 2006) whilst another group of researchers argue that there exists no statistically meaningful differentiation between girls and boys with respect to being victimized by cyberbullying (Özdemir & Akar, 2011; Peker, Eroglu & Citemel, 2012; Slonje & Smith, 2008). In a number of literature studies interrogating cyberbullying sensibility level with respect to gender variable, a meaningful differentiation has been detected (Ayas & Horzum, 2011) while in some studies, no differentiation could be verified (Gezgin & Cuhadar, 2012; Huang & Chou, 2013).

Another finding obtained in relevant literature is that there might be connection between Internet usage frequency and cyberbullying (Akbulut et al., 2010; Erdur-Baker 2010; Li, 2006; Topcu, Erdur-Baker & Capa-Aydin, 2008; Ozdemir & Akar, 2011; Wolak, Mitchell & Finkelhor, 2007). Likewise Erdur-Baker and Kavsut (2007) have reported that there is positive correlation between the usage of Internet-based communication resources and being a cyberbully or being a cyberbullying victim. In literature it is possible to come across research findings manifesting that there is no meaningful differentiation between frequency of Internet usage and sensibility level towards cyberbullying (Gezgin & Cuhadar, 2012).

In some literature studies exploring the connection between age and grade variables and being a cyberbully or being a cyberbullying victim it has been claimed that no relation exists cyberbullying or cybervictimization with respect to aforementioned variables (Burnukara, 2009; Erdur-Baker & Kavsut, 2007; Ozdemir & Akar, 2011; Slonje & Smith, 2008), while findings of some researches indicated that there is a connection between cyberbullying and cybervictimization with respect age and grade variables (Ayas &

Horzum, 2012; Kowalski & Limber, 2007; Mark, 2009; Pepler, Craig, Connolly, Yuile, McMaster & Jiang, 2006). In relevant literature there are also a number of researches underlining that there is no relation between these particular variables and sensibility level towards cyberbullying (Ayas & Horzum, 2011; Gezgin & Cuhadar, 2012).

In literature researches probing into the relation between cyberbullying and cybervictimization it has been designated that the most powerful predictor of cyberbullying performance is cybervictimization or in other way, the most powerful predictor of cybervictimization is cyberbullying (Akbulut & Eristi, 2011; Bauman, 2010; Bauman & Pero, 2010), that cybervictimization is the most salient factor in cyberbullying (Hoff & Mitchell, 2010), that there is high possibility that cyberbullying victims shall eventually perform cyberbullying behaviors (Erdur-Baker, 2010; Walrave & Heirman, 2011).

As literature researches on cyberbullying, cybervictimization or cyberbullying sensibility are examined it can be detected that a majority of researches conducted in Turkey have covered formal education teenagers or developmental age students and college students (Aricak, 2009; Ayas & Horzum, 2012; Cetinkaya, 2010; Gezgin & Cuhadar, 2012; Ozdemir & Akar, 2011; Sahin 2012). On the other hand in relevant literature studies it has also been ascertained that cyberbullying is the common problem shared amid all individuals regardless of age, education and socio-economic level (Akbulut & Eristi, 2011), that the rise in the frequency of Internet based communication resources enhanced the likelihood of cyberbullying or cybervictimization (Erdur-Baker & Kavsut, 2007). Accordingly, as manifested in Turkish Statistics Institute's (TUIK, 2012) national statistics demonstrating that of the teenagers between age sixteen and twenty four 67.7% and of the adults between age twenty five and thirty four 58.5% use the Internet which indicates that a great portion of society is under the risk of being either a cyberbully or cyberbullying victim hence it is essential to conduct further researches covering different groups of age. On the other hand according to data from Turkish Higher Education Institute, though there are more than two millions of distance education students in Turkey, there are no literature research that collectively analyzes these students' cyberbullying, cybervictimization and cyberbullying sensibility level which further emphasizes the gravity of this research. Hence it has been deemed essential to conduct current research that analyzes cyberbullying, cybervictimization and cyberbullying sensibility levels of distance education students with respect to several variables.

PURPOSE OF THE STUDY

As literature researches on cyberbullying, cybervictimization or cyberbullying sensibility are examined it can be detected that a majority of researches conducted in Turkey have covered formal education teenagers or developmental age students and college students (Aricak, 2009; Ayas & Horzum, 2012; Cetinkaya, 2010; Gezgin & Cuhadar, 2012; Ozdemir & Akar, 2011; Sahin 2012). On the other hand in relevant literature studies it has also been ascertained that cyberbullying is the common problem shared amid all individuals regardless of age, education and socio-economic level (Akbulut & Eristi, 2011), that the rise in the frequency of Internet based communication resources enhanced the likelihood of cyberbullying or cybervictimization (Erdur-Baker & Kavsut, 2007). Accordingly, as manifested in Turkish Statistics Institute's (TUIK, 2012) national statistics demonstrating that of the teenagers between age sixteen and twenty four 67.7% and of the adults between age twenty five and thirty four 58.5% use the Internet which indicates that a great portion of society is under the risk of being either a cyberbully or cyberbullying victim hence it is essential to conduct further researches covering different groups of age. On the other hand according to data from Turkish Higher Education Institute, though there is more than two millions of distance education students in Turkey, there are no literature research that collectively analyzes these students' cyberbullying, cybervictimization and cyberbullying sensibility level which further emphasizes the

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METHOD

This research is a descriptive research. In the research, relational screening model was employed. According to Karasar (2008), relational screening model aims to determine the change or levels of the change between two or more variables. The relations found through screening are not necessarily cause-effect relations; however the situation identified in variable may give hints about the other variable(s). In this context, the relationship between cyberbullying, cybervictimization and cyberbullying sensibility of studensts was analysed through correlation oriented relational screening model. The comparative relational screening model was used in order to determine whether there is a difference between gender, grade, enrolled program, age, the frequency of Internet use variables.

Participants

Population of this research comprised of 297 distance education students studying at Trakya University, Tunca Vocational High School during fall term of 2012-2013 academic year. Of the research participants, 95 are (32%) females and 202 are (68%) males. 121 of students are 1st graders (40.7%) and 176 are 2nd graders (59.3%). Of the participant students 58 (19.5%) access the Internet one-two hours in a day, 78 students (26.3%) three-four hours in a day and 161 students (36.7%) five or longer hours in a day. 49 students study in (16.5%) Information Management department, 42 in (14.1%) Business Administration department and 206 in (69.4%) Computer Programming department. Of the distance education students, 165 are (55.6%) between age eighteen and twenty five, 104 are (35.0%) between age twenty six and thirty three and 28 are (9.4%) between age thirty four and above. 56 of students (18.9%) claimed to have been a victim of cyberbullying before and 27 students (9.1%) claimed to have performed cyberbullying behavior.

Data Collection Tools

Cyberbullying scale: **towards the aim of gathering students' views on cyberbullying performance Cyberbullying Scale developed by Aricak, Kinay and Tanrikulu (2012) has been utilized. The scale consists of single factor which explains 50.58% of total variance. Factor loads of items vary between.49 and .80. Cronbach's Alpha coefficient calculated for the entire scale has been detected as.95; test-re test reliability coefficient as .70. The scale comprises of 24 items and answered on a four-choice scale (Never, Sometimes, Usually and Always). Scoring of scale is as never =1, sometimes=2, usually=3 and always=4. Minimum score to receive from the scale is 24, maximum score is 96. The higher score received from the scale indicates that the person is a cyberbully (Aricak et al., 2012). In present research, Cronbach's Alpha internal consistency coefficient of the scale has been computed as .92.**

Cybervictimization Scale

Towards the aim of detecting if students are cybervictimized, Cybervictimization Scale developed by Aricak, Tanrikulu and Kinay (2012) has been employed. The scale consists of single factor which explains 30.17% of total variance. Factor loads of items vary between .43 and .67. Cronbach's Alpha coefficient calculated for the entire scale has been detected as .89; test-re test reliability coefficient as .75. The scale comprises of 24 items and answered on two- choice scale (Yes-No). Scoring of scale is as yes=2, no=1. Minimum score to receive from the scale is 24, maximum score is 48. The higher score received from the scale indicates that the person is a cyberbullying victim (Aricak et al., 2012). In present research, Cronbach's Alpha internal consistency coefficient of the scale has been computed as .87.

Cyberbullying Sensibility Scale

Towards the aim of detecting students' sensibility towards cyberbullying, Cyberbullying Sensibility Scale developed by Tanrikulu, Kinay and Aricak (2013) has been employed. The scale consists of single factor which explains 46.65% of total variance. Factor loads of items vary between .32 and .73. Internal consistency coefficients of the scale have been found as .83 and .90; two half test-reliability coefficients between .75 and .84.

In addition, item-total correlations of the scale have been lined between .42 and .63 for integrated group. Consisting of 14 items the scale is answered on three-choice scale (Yes, Sometimes, No). Scoring of scale is as no=1, sometimes=2 and yes=3. Minimum score to receive from the scale is 14, maximum score is 42. The higher score obtained from the scale indicates that the student has high level of sensibility towards cyberbullying (Tanrikulu et al, 2013). In present research Cronbach's Alpha internal consistency coefficient of scale has been detected as .82.

Data Collection and Analysis

Data have been collected by the researcher during 2012–2013 academic year fall term pre-final exams period. First, students have been briefed on research topic and data collection tools. Next they have been reminded that research participation is voluntary, then students have been directed towards survey questions. The scales have been answered in about 20 minutes. Throughout the process 305 surveys in total have been distributed to students and 297 of these surveys have been received back in a format applicable to data processing. Prior to the analysis Kolmogorov-Smirnov Test has been conducted to see if data were in normal distribution and it has been detected that for the variables, test result is $p<0.05$. Towards the aim of analyzing data with no normal distribution descriptive statistics, Mann Whitney U and Kruskal Wallis H tests have been utilized. To the end of detecting inter-scale relation, Spearman Brown Rank Correlation coefficient has been employed. In the correlations .05 level of significance has been taken as meaningful.

FINDINGS

Correlation coefficients amid cyberbullying, cybervictimization and cyberbullying sensibility variables have been demonstrated in Table 1. As Table 1 is examined it surfaces that between cyberbullying and cybervictimization there is mid-level, positive and meaningful correlation (*r=.327, p<.01*). It can thus be argued in the light of this finding that parallel to the increase in cybervictimization, cyberbullying also grows bigger.

Table: 1
Correlations between the cyberbullying, cybervictimization and cyberbullying sensibility variables

Variables	Cyberbullying	Cybervictimization	Cyberbullying Sensibility
Cyberbullying		.327**	.028
Cybervictimization	.327**		.147*
Cyberbullying Sensibility	.028	.147*	

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

Taken into account the determination coefficient as well ($r^2=0.11$) it can be claimed that 11% of total variance in cybervictimization stems from cyberbullying. Likewise it can also be identified that between cybervictimization and sensibility towards cyberbullying, there is low level, positive and meaningful correlation (*r=.147, p<.05*).Obtained findings on cyberbullying, cybervictimization and sensibility towards cyberbullying manifest that students' average scores on cyberbullying ($\bar{X}$ *=32.31*) and cybervictimization ($\bar{X}$ *=30.36*)

are mid-level whereas the score average obtained from cyberbullying sensibility scale is significantly high ($\bar{X}$ *=36.62*). Obtained findings are as shown in Table 2.

Table: 2
Descriptive statistics of the distance education students for cyberbullying, cybervictimization and cyberbullying sensibility scores

Variables	N	$\bar{X}$	SD
Cyberbullying	297	32.31	11.02
Cybervictimization	297	30.36	3.86
Cyberbullying Sensibility	297	36.62	5.31

Mann Whitney U Test has been employed to analyze distance education students' cyberbullying, cybervictimization and sensibility levels towards cyberbullying with respect to gender variable. According to the findings listed in Table 3, with respect to gender variable, there is meaningful differentiation between cyberbullying and cybervictimization scores (*U_1=8079.00, p<.05; U_2=8214.00, p<.05*).

Table: 3
Mann–Whitney U test result of cyberbullying, cybervictimization and cyberbullying sensibility scores with respect to the variable of gender

Variables	Gender	N	Mean Rank	Sum of Ranks	U	p
Cyberbullying	Male	202	156.50	31614.00	8079.00	.019
	Female	95	133.04	12639.00		
Cybervictimization	Male	202	155.84	31479.00	8214.00	.043
	Female	95	134.46	12774.00		
Cyberbullying Sensibility	Male	202	151.82	30668.50	9024.50	.406
	Female	95	145.95	13584.50		

The correlation between grades of distance education students and the levels of cyberbullying, cybervictimization and sensibility level towards cybervictimization has been examined via Mann Whitney U Test. According to findings presented in Table 4, with respect to grade variable, there is no meaningful differentiation amid cyberbullying, cybervictimization and sensibility towards cyberbullying scores (*U_1=9575.50, p>.05; U_2=9612.50, p>.05; U_3=9409.50, p>.05*).

Table: 4
Mann–Whitney U test result of cyberbullying, cybervictimization and cyberbullying sensibility scores with respect to the variable of grade

Variables	Class	N	Mean Rank	Sum of Ranks	U	p
Cyberbullying	1st graders	121	157.86	19101.50	9575.50	.117
	2nd graders	176	142.91	25151.50		
Cybervictimization	1st graders	121	140.44	16993.50	9612.50	.149
	2nd graders	176	154.88	27259.50		
Cyberbullying Sensibility	1st graders	121	159.24	19267.50	9409.50	.087
	2nd graders	176	141.96	24985.50		

Towards the aim of analyzing distance education students' levels of cyberbullying, cybervictimization and sensibility level towards cybervictimization with respect to their department Kruskal Wallis H Test has been employed. According to findings presented in Table 5, with respect to department variable, there is no meaningful differentiation amid cyberbullying, cybervictimization and sensibility towards cyberbullying scores *χ_1^2 (df=2, n=297)=4.68, p>.05; χ_2^2 (df=2, n=297)=.58, p>.05; χ_3^2 (df=2, n=297)=3.50, p>.05*.

Table: 5
Kruskal Wallis H test result of cyberbullying, cybervictimization and cyberbullying sensibility scores with respect to the variable of program of study

Variables	Program of Study	N	Mean Rank	df	χ^2	p
Cyberbullying	Business Administration	42	158.18	2	4.68	.096
	Information Management	49	126.62			
	Computer Programming	206	152.45			
Cybervictimization	Business Administration	42	155.92	2	.58	.745
	Information Management	49	142.28			
	Computer Programming	206	149.19			
Cyberbullying Sensibility	Business Administration	42	141.43	2	3.50	.173
	Information Management	49	169.64			
	Computer Programming	206	145.63			

Towards the aim of analyzing distance education students' levels of cyberbullying, cybervictimization and sensibility level towards cybervictimization with respect to their age, Kruskal Wallis H Test has been employed.

According to analysis findings, with respect to age variable, there is no meaningful differentiation amid cyberbullying, cybervictimization and sensibility towards cyberbullying scores $\chi_1^2(df=2,\ n=297)=5.48,\ p>.05$, $\chi_2^2(df=2,\ n=297)=.38,\ p>.05$ **and** $\chi_3^2(df=2,\ n=297)=5.38,\ p>.05$**. Obtained findings have been presented in Table 6.**

Table: 6
Kruskal Wallis H test result of cyberbullying, cybervictimization and cyberbullying sensibility scores with respect to the variable of age

Variables	Age	N	Mean Rank	df	χ^2	p
Cyberbullying	18-25	165	157.38	2	5.48	.064
	26-33	104	142.97			
	34 and over	28	122.02			
Cybervictimization	18-25	165	151.10	2	.38	.825
	26-33	104	144.86			
	34 and over	28	152.00			
Cyberbullying Sensibility	18-25	165	138.73	2	5.38	.068
	26-33	104	161.18			
	34 and over	28	164.27			

Towards the aim of analyzing distance education students' levels of cyberbullying, cybervictimization and sensibility level towards cyberbullying with respect to daily use frequency of Internet, Kruskal Wallis H Test has been employed.

Analysis findings demonstrate that between Internet use frequency variable and cyberbullying and cybervictimization score there is meaningful differentiation $\chi_1^2(df=2,\ n=297)=10.43,\ p<.05$ **and** $\chi_2^2(df=2,\ n=297)=9.85,\ p<.05.$

This finding proves that increase in daily use length of Internet is an effective factor on cyberbullying and cybervictimization.

As rank averages are taken into consideration it is detected that cyberbullying is maximum in students spending five or longer hours on the Internet and cybervictimization is maximum in students spending three-four hours in a day on the Internet. Obtained findings are as demonstrated in Table 7.

Table: 7
Kruskal Wallis H test result of cyberbullying, cybervictimization and cyberbullying sensibility scores with respect to the variable of internet use frequency

Variables	Internet use frequency	N	Mean Rank	df	χ^2	p	Significance
Cyberbullying	1or 2 hours (A)	58	118.81	2	10.43	.005	C-A
	3 or 4 hours (B)	78	151.89				
	5 hours and more (C)	161	158.48				
Cybervictimization	1or 2 hours (A)	58	122.23	2	9.85	.007	B-A, C-A
	3 or 4 hours (B)	78	168.40				
	5 hours and more (C)	161	149.25				
Cyberbullying Sensibility	1or 2 hours (A)	58	138.93	2	1.08	.582	
	3 or 4 hours (B)	78	149.14				
	5 hours and more (C)	161	152.56				

In order to identify the source of difference detected between groups Mann Whitney U-tests have been employed on dual combinations of groups. Test findings manifested that students performing cyberbullying behaviors spend five or longer hours of time on the Internet.

In the evaluation based on the cybervictimizations of students it has been detected that between three-four or longer hours of daily Internet use and one-two hours of daily Internet use there is meaningful differentiation. In another saying students spending three–four or longer hours on the Internet in a day exhibit higher tendency towards cybervictimization.

Towards the aim of analyzing distance education students' levels of cyberbullying, cybervictimization and sensibility level towards cyberbullying with respect to having experienced any type of cyberbullying victimization before, Mann Whitney U Test has been utilized and obtained findings are as shown in Table 8.

Accordingly there is meaningful differentiation between variable of experiencing cyberbullying victimization before and performing cyberbullying behavior (*U=5589.50, p<.05*). In the light of this finding it is feasible to argue that students having experienced cyberbullying victimization tend to perform cyberbullying behavior in future.

Table: 8
Mann–Whitney U test result of cyberbullying and cyberbullying sensibility scores with respect to having exposed to cyberbullying,

Variables	Group	N	Mean Rank	Sum of Ranks	U	p
Cyberbullying	Exposed	56	169.69	9502.50	5589.50	.033
	Not exposed	241	144.19	34750.50		
Cyberbullying Sensibility	Exposed	56	160.68	9007.50	6084.50	.250
	Not exposed	241	146.25	35245.50		

In order to detect if students sensibility levels towards cybervictimization and cyberbullying varied with respect to their past experiences (if any) with any cyberbullying Mann Whitney U Test has been utilized.

As manifested in the findings in Table 9, there is meaningful differentiation between variable of cyberbullying and cybervictimization (*U=555.00, p<.05*). According to this finding there is meaningful correlation between students' cyberbullying and cybervictimization.

Table: 9
Mann–Whitney U test result of cybervictimization and cyberbullying sensibility scores with respect to the variable of engage in cyberbullying as a bully

Variables	Group	N	Mean Rank	Sum of Ranks	U	p
Cybervictimization	Engaged	27	204.39	5518.50	555.00	.000
	Not engaged	270	137.56	38734.50		
Cyberbullying Sensibility	Engaged	27	174.20	4703.50	2694.50	.108
	Not engaged	270	146.48	39549.50		

DISCUSSIONS and CONCLUSION

The objective in present research has been to detect distance education students cyberbullying, cybervictimization and sensibility levels towards cyberbullying with respect to different variables. Obtained findings manifest that cyberbullying performance scores of distance education students are low, cybervictimization scores are mid-level and there is mid-level correlation between two. It has also been manifested that there is meaningful differentiation between cybervictimization variable and cyberbullying. Likewise it has been detected that there is meaningful differentiation between cyberbullying variable and cybervictimization. In another saying these findings indicate that cyberbullying and cybervictimization are two factors triggering one another. In relevant literature it is possible to come across several researches echoing the findings of current study (Akbulut & Eristi, 2011; Bauman, 2010; Erdur-Baker, 2010; Çelik, Atak & Erguzen, 2012; Kowalski & Limber, 2007; Walrave & Heirman, 2011; Ybarra & Mitchell, 2004). Some of the findings obtained from researches on cyberbullying report that when students are exposed to cyberbullying they develop feelings of anger, hatred, disappointment and revenge (Sahin, Sari, Ozer & Er, 2010) and once fueled with these adverse feelings those victims of cyberbullying can themselves turn into potential cyberbullies (Li, 2006).

This finding can be construed in this way: individuals personally victimized by cyberbullying behaviors can cultivate lessened sensitivity due to the effects of negative feelings such as hatred, anger and humiliation.

Another finding obtained from this research is that students have high sensitivity levels towards cyberbullying and that there is weak connection with cybervictimization. In another saying it is argued that people who are aware that via Internet or mobile tools their personal information might be abused by bad intentional interrupters, that they should terminate communication once meet curses or scoffs on virtual environment and people who take required measures to ensure that neither communication tool nor the person gets defiled in virtual environment are less likely to be victimized by cyberbullying.

Another finding detected is that with respect to gender variable there is meaningful differentiation between being a cyberbully and being a cybervictim as regards distance education students. Finding obtained from this research is parallel to the relevant literature reporting that compared to females males are engaged in cyberbullying actions more frequently (Ayas &Horzum, 2012; Özdemir & Akar, 2011; Şahin et al., 2010), and that they are more victimized by cyberbullies (Akbulut & Eristi, 2011; Aricak et al., 2008; Erdur-Baker, 2010; Erdur-Baker & Kavsut, 2007; Li, 2006). On the other hand other findings claiming that females perform higher numbers of cyberbullying actions than males (Agatston et al., 2007; Keith & Martin, 2005; Li, 2006) and that they are victimized more compared to males (Mesch, 2009; Ybarra et al., 2006) and other research findings arguing that with respect to cybervictimization there is no meaningful differentiation between females and males (Özdemir & Akar, 2011; Peker et al., 2012; Slonje & Smith,

2008) are not parallel to the finding detected in present research. It can be argued that such dissimilarity might be attributed to the fact that Turkish society is a male-dominated, patriarchal community and as gender rule of socialization girls are, compared to boys, more inclined towards obeying social norms (Akbulut & Eristi, 2011). It can also be suggested that TUIK (2012) data claiming that males are more inclined to information and communication technologies might have been effective in obtaining this finding. Within that context it is believed that it would be contributive to the related field to conduct researches that analyze on different groups bullying performances specific to girls and boys separately.

One other finding obtained from this research is that with respect to department, age and grade variables and cyberbullying, cybervictimization and sensibility towards cyberbullying scores, there exists no meaningful differentiation. In relevant literature the researches that focus on the relation between cyberbullying and cybervictimization with respect to age, grade and department variables provide similar results to the findings of current research (Burnukara, 2009; Erdur-Baker & Kavsut, 2007; Özdemir & Akar, 2011; Slonje & Smith, 2008). On the other hand there are some researches evidencing that with respect to age and grade variable there is a relation between cyberbullying and cybervictimization (Ayas & Horzum, 2012; Kowalski & Limber, 2007; Mark, 2009; Pepler, et al., 2006).

There are also a number of studies reporting that there is no correlation between sensibility towards cyberbullying and variables aforementioned (Ayas & Horzum, 2011; Gezgin & Cuhadar, 2012). Sampling of literature studies that differ from the finding of present research consists of children or teenagers whereas sampling in this research is consisted of adult students. It is considered that the difference between findings of this research and findings of other researches might stem from the fact that adults use Internet based communication resources and novel technologies more deliberatively when compared to children or teenagers and that they are more aware of the negative effects of these resources and technologies. Indeed, European Online Kids Research Turkey Report (EU Kids Online, 2012) stating that kids possess low level of knowledge and skills on the Internet use is supportive of this deduction. In order to manifest more accurately the reasons of this difference emerging in literature researches, comparative qualitative and quantitative researches need to be conducted.

Another finding of this research is that with respect to variable of daily Internet use of distance education students there is meaningful differentiation between cyberbullying and cybervictimization. In another saying it has been detected that children who spend five or longer hours daily on the Internet perform greater levels of cyberbullying when compared to students spending fewer hours. This finding is parallel to many other researches in relevant literature (Akbulut et al., 2010; Erdur-Baker 2010; Hinduja & Patchin, 2008; Li, 2005; Ozdemir & Akar, 2011; Topcu et al., 2008). This finding may be attributed to the assumption that children spending longer time on the Internet may be engaged in more negative shares parallel to the rise in this length. This research finding has also demonstrated that students spending three or four hours on the Internet are, compared to the children spending less time, victimized by cyberbullying to a greater extent.

This finding is also parallel to results obtained from relevant literary researches (Peker & Eroglu 2010). In the research, finding indicating the relation between daily Internet use and cybervictimization has demonstrated that the rise of Internet use to five or longer hours triggered a fall in the scores of cybervictimization.

This finding is also parallel to one of the other findings of research indicating that increase in the frequency of Internet use has accelerating effect on sensibility towards cyberbullying.

This finding can be construed in such way; the increase in the Internet use of participants created a boosting effect on their awareness on cyberbullying hence they were less victimized by cyberbullying. Towards the aim of analyzing this research finding more safely it would be useful to conduct further researches to examine the relation between Internet use frequency and cybervictimization on groups with dissimilar demographical characteristics.

Considering the fact that information and communication technologies are utilized more widely and heavily every passing day, it would be useful to analyze cyberbullying which is becoming increasingly common in not only Turkey but the whole globe amid teenagers and adults and bringing forth devastating effects under new researches that cover a variety of groups and elevating the sensitivity of general society towards cyberbullying would contribute greatly to the solution of this prevailing problem.

There are a number of limitations concerning this study. The main limitation is that all analyses have been built upon single group of data hence it is essential that findings obtained from present research should be verified by comparing and contrasting with findings obtained from distance education students studying at different departments in different universities. Findings obtained via quantitative research methods in present study should also be consolidated with research findings obtained via qualitative methods. Questions such as "What are the relations of socio demographic features excluded from the scope of this research with cyberbullying and cybervictimization? Towards the aim of coping with cyberbullying problem, what are communication features of cyberbullies and cybervictims on virtual environment? What views are held by cybervictims concerning cyberbullying?" should be sought for answers in future studies integrated with qualitative or quantitative qualities.

BIODATA and CONTACT ADDRESSES of the AUTHOR

Dr. Hasan OZGUR was born in Burgaz, Bulgaria, in 1980. He graduated from Marmara University, Faculty of Education, Department of Computer and Instructional Technology (CEIT) in 2002. In 2005, he received his M.S and he received his Ph.D. in Computer Engineering, University of Trakya. He has been working at Department of CEIT, Faculty of Education at Trakya University as an Assistant Professor. He has an interest in the study of teacher education, technology acceptance, social networks and distance education.

Assist. Prof. Dr. Hasan OZGUR
Trakya University Faculty of Education Department
of Computer Education and Instructional Technologies
Faculty of Education, Kosova Campus Aysekadin, Edirne, TURKEY
Phone: +902842120808
Fax: +902842146279
Email: hasanozgur@gmail.com

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