Cyberbullying among Turkish Adolescents

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ABSTRACT

Cyberbullying, harassment through the use of information and communication technology such as cell phones and the Internet, is an emerging phenomenon all around the world. Extensive research on aggression and bullying is guiding educators' understanding of cyberbullying. Yet the gap between the advancement in technology and the dearth of study on cyberbullying suggests that more research is needed to understand the scope of this form of bullying. In order to fill the gap in literature, 269 secondary school Turkish students were surveyed on their engagement in and coping strategies for cyberbullying. The results show that 35.7% of the students displayed bully behaviors, and 23.8% of the students displayed bully-victim behaviors. Only 5.9% of the students were victims. More boys displayed bully, victim, and bully-victim behaviors than girls. When faced with cyberbullying, 25% of the students reported telling their peers and parents about the cyberbullying incident, and 30.6% of the students reported finding active solutions such as blocking the harasser. The implication of the study for future research is discussed.

INTRODUCTION

FOR THE LAST 20 years, bullying has received increasing attention from researchers.[1] Today, nearly one-third of 6th through 10th graders in United States report moderate or frequent involvement in bullying, whether as a bully, a victim, or both.[2] Bullying is defined as the victimization of a student by being repeatedly exposed to physical or verbal negative behaviors of other students.[3] With the advancement in communication and information technology, the phenomenon of bullying among students in schools has expanded its boundaries to the virtual environment and transformed itself into a new form called cyberbullying. As defined by Belsey, cyberbullying is the repeated hostile behavior of an individual or a group toward another individual through communication technologies such as e-mail, cell phone, pager text messages, instant messaging, personal Web sites, and blogs.[4] It includes negative behaviors such as lying, hiding the identity (anonymity), introducing oneself as someone else, threatening, teasing, insulting, defamation, intimidation, rumor, and displaying others' pictures without their consent in virtual setting(s). The harassment may also occur in technological forms such as programming of infected software, hacking, and spreading infected e-mails.

Before computers, children could generally feel safe from other bullies in their own bedrooms, but now a cyberbully can enter that sanctuary.[5] In Canada, a study conducted among 264 junior high

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students found that one in four students had been cyberbullied, and nearly half of the students knew someone being cyberbullied.[6] Li found that 54% of the students were victims of traditional bullying, and over a quarter of them had been cyberbullied. One in three students had bullied others in the traditional form, and almost 15% had bullied others using electronic communication tools. More boys than girls were cyberbullies, and girls reported to be cybervictims more than boys.[7]

This emerging phenomenon in technologically advanced countries is becoming an international concern as children around the world gain more access to relatively low-cost communication devices such as Internet and cell phones. In the United States, 91% of 58,273,000 children (18 under) are computer users, and 59% are Internet users. In addition, 23% of preschool children under 5 were reported to be Internet users.[8] In Turkey, 93.5% of adolescents, ages between 15 and 22, use cell phones.[9] Although several researchers[10,11] emphasized cyberbullying as an emerging problem among youth in Turkey, no systematic investigation had been carried out on cyberbullying as of 2007. The current study is the first attempt to investigate the extent and trend of cyberbullying among secondary school students in Turkey.

Bullying and victimization

Research on bullying started in the 1970s with the longitudinal study of Olweus[12] on aggression and peer acceptance among adolescent boys in Sweden. It has gained international interest since then; cases were reported in the United States, Japan, Italy, England, Germany, and Turkey.[13,14,15,16,17] Research suggests that children engage in two types of bullying depending on the overt or covert ways of displaying an aggressive behavior. Direct bullying, the display of overt aggressive behavior(s), is defined as harassing others through either direct physical contact or verbal attack such as pushing, hitting, and teasing.[18] Indirect bullying, also called relational bullying, is defined as a person's covert aggressive behavior(s) intended to harass others by damaging the victim's social relations. It includes gossiping, rumor spreading, name calling, and excluding someone from the group.[19]

The early studies on bullying and other studies that followed categorize students involved in bullying into three distinct groups: bullies, bully-victims, and victims. Bullies are those who initiate aggressive behavior in their interaction with others without any situational or individual provocation. They engage in proactive aggression, the aggressive behavior that is intended to achieve certain goals such as gaining control over others.[20,21] Bullies are physically stronger than their peers; they have high self-confidence and positive self-perception. They are found to be as popular as other students and to have average school success.[12] Victims, on the other hand, are those who are subjected to the continuous harassment of bullies. They suffer from low self-esteem and are physically weaker than their peers.[22] Victims who do not retaliate when attacked or insulted and react submissively to the bully are called passive victims.

Victims who react aggressively to the bullying situation are called aggressive victims, and they constitute the bully-victim group. They engage in reactive aggression, which is a display of impulsive aggressive behavior in the face of a certain provocative instant, attributing hostile intention to the other person.[23,24] In a bullying situation, aggressive victims display their emotions in a way that perpetuates provocation. Therefore, they are more likely to be chronically bullied.[25,26] Compared to bullies and victims, aggressive victims are found to be the most aggressive group.[27] Longitudinal studies on bullying and victimization suggest that students' engagement in bullying and victimization extends over long periods of time and shows a substantial degree of stability.[21]

New era of bullying: Cyberbullying

Cyberbullying, an emerging phenomenon among adolescents, is the repeated harassment of peers by using information and communication technology such as Internet and cellular phones.[28] Children can be humiliated and intimidated at all times on a worldwide scale on the Internet by unknown individuals.[29,30] Li found that students were not only bullied at school but also cyberbullied outside of school by their peers.[7] According to Patchin and Hinduja, physical separation of the bully and the victim is no longer a limitation in the frequency, scope, and depth of harm experienced. As in traditional bullying, the goal of the cyberbullies is to harm their victims through repeated disturbance to gain control over them. Yet, in cyberbullying situations, the power of bullies does not come from their physical advantage over the victims but from their competence in using the technology and their ability to hide their identity on the Internet.[31]

People can be exposed to and can engage in cyberbullying regardless of sex, age, ethnicity, socioeconomic level, and academic performance. Many news stories have reported cyberharassment/bullying incidents all over the world. In Australia, a 9-

year-old 4th-grade girl received very pornographic e-mails. Her parents assumed the sender of the e-mails was an adult, yet the sender was actually her classmate.[32] Three honors students in a Louisiana school were recently arrested and suspended after they created a "biggest queer" Web site targeting a fellow student, who retaliated by launching a graphically violent site directed at his "prep" schoolmates.[33] In Japan, while an overweight boy was changing in the locker room, his nude pictures were taken by his friends on the sly and distributed to many of his classmates.[34]

Research shows that cyberbullying affects children's mental health. Depressive symptoms in children who are using Internet regularly are found to be significantly related to exposure to Internet harassment.[35] For instance, in a California high school, vicious gossip and racist and threatening remarks grew so rampant on a Web site that most of the school was affected, causing many of the students to be depressed, angry, or simply unable to focus on school.[34] In Vermont, a 13-year-old boy hanged himself after enduring months of cyberbullying from classmates.[30]

Researchers have investigated and speculated on various factors for cyberbullying such as aggression and self-esteem. Harman et al. found that children who misrepresent themselves on the Internet have less well-developed social skills, lower levels of self-esteem, and higher levels of social anxiety and aggression.[36] They suggest that a strong relationship exists between inflated self-esteem and violence.[36] When an unrealistically high self-concept combines with online technology, it can lead to online harassment. The Internet, like television, affords much opportunity to vicariously observe inappropriate behaviors modeled by others. According to Pratarelli et al., the problem is that exposure to and imitation of maladaptive behavior could permeate a child's offline life.[37] The ability to anonymously interact on the Internet contributes to a lower self-awareness in individuals and may lead them to react impulsively and aggressively to other individuals online.[38]

Although cyberbullying caught media attention in the United States[39,40,41] and Canada, more research must be conducted to understand the nature and extend of this new phenomenon as it becomes a global problem through the spread of technology and the increased use of technology by children. The current study is a preliminary study on cyberbullying in Turkey and aims to fill the gap in literature by providing evidence for students' exposure to and engagement in cyberbullying in other countries. The kinds of harassing behavior(s) students are exposed to and engaged in on the Internet and cell phones, as well as their coping strategies for harassing behaviors that they have been exposed to, are investigated through a survey.

METHOD

Participants

Participants comprised 269 students (134 boys and 135 girls) between 6th and 10th grade from four different schools in Istanbul. Three schools were public and one school was private. Schools were randomly selected within different socioeconomic districts by the authors. One school was from low, two schools were from middle, and one school was from high socioeconomic districts. All students were informed about the study in classrooms by the authors. All students were Turkish. Students' age ranged from 12 to 19 ($M = 15.06$, $SD = 1.51$). Only two students were 18 and 19 years old.

Procedure

Surveys were administered after class hours by authors in classrooms in May and June 2006. The survey required 15 minutes to complete. Students who volunteered to participate were included in the sample.

Instruments

A Questionnaire of Cyberbullying (QoCB) was developed by the authors of this study. After reviewing previous research on cyberbullying in EBSCO Host Index, the authors developed 21 multiple-choice questions to measure relevant psychological and behavioral constructs such as engagement in, exposure to, and coping strategies for cyberbullying. Items included *Have you ever come across an undesirable situation/behavior on the Internet? Do you say things on the Internet that in the real world you would never say face to face?* and *Do you pretend to be someone else on the Internet?* Since items had nominal response categories in our questionnaire, only content validity of the instrument was examined. Two reviewers from the educational psychology departments of two different universities examined the items to check ambiguity and the overall quality of the measurement. Each item was reviewed and revised to ensure that the reading level was appropriate for middle and high school students before it was administered to participants. The current version of the QoCB has an overall 6th-grade reading level.

Data analysis

Both descriptive and inferential statistics were used to examine the cyberbullying behaviors among students. The statistical package SPSS 14 for Windows was used to analyze data. Descriptive statistics were employed to provide background information such as the extent and frequency of cyberbullying. Further, chi-square and Mann Whitney U tests were used with an alpha level of 0.05 to examine possible correlations.

RESULTS

In this study, 74.1% of the students had a personal computer, 84.2% of the students had personal cell phones, and 64.3% of the students had both personal cell phones and computers. Of the students, 96.8% were Internet users; 27.9 % reported using the Internet for less than an hour, 43. 5 % reported using the Internet between 1 and 2 hours, 16.4 % reported using the Internet 3 to 4 hours, and 11.2 % reported using the Internet more than 5 hours per day ($N = 266$). More than half of the students reported using the Internet for MSN-chatting and homework (see Table 1). Some 30.2% of children reported sharing their passwords with other people on the Internet. Some students who were exposed to cyberbullying also reported in engaging in at least one of the five types of harassing behaviors. The cyberbully-victim behavior that the students engaged in most was saying things online that would not be said face to face, at 23.8% (see Table 2). According to the questionnaire results, 13.4% of boys and 10.4% of girls self-reported as cyberbully-victims. Cyberbully-only behaviors were displayed by 35.7% of the students, and 5.9% of the students were cybervictims. Nineteen percent of boys

TABLE 1.   STUDENTS REPORTED REASONS
FOR USING THE INTERNET

Reasons for using the Internet	Percentage (n = 268)
MSN-chatting	38.7
Homework	28.2
Playing games	18.4
E-mails	10.5
Surfing and other activities	4.2

*Because participants circled more than one answer choices, percentages were calculated according to the number of behaviors reported instead of the number of participants.

TABLE 2.   REPORTS OF HARASSING BEHAVIORS
ENGAGED IN BY STUDENTS
WHO WERE EXPOSED TO BULLYING

Harassing behaviors	Percentage (n = 97)
Saying things online that would not be said face to face	23.8
Introducing oneself as someone else	16.4
Saying things that are not true	10.1
Sending infected e-mails	8.2
Displaying others' pictures without their consent	4.8

and 16.7% of girls were cyberbullies; 3.3% of boys and 2.6% of girls were found to be cybervictims ($N = 269$).

Exposure to cyberbullying

More than one-third (36.1%) of the students reported coming across and being exposed to unwanted and disturbing behaviors on the Internet, which is defined as cyberbullying, whereas 63.9% of the students reported not experiencing such a behavior. Almost a quarter (23.7%) of the students reported that they were disturbed through their cell phones, whereas 76.3% of the students reported that they had not come across such behavior. The most reported form of exposure to cyberbullying was being insulted, at 20.2% (see Table 3).

A positive correlation was found between the frequency of Internet use and being exposed to disturbing behavior(s), receiving unwanted e-mails, and receiving infected e-mails (Mann Whitney $Zs = -2.94$, -3.62, and -3.64 respectively; $p < 0.01$). As sharing passwords with others increases, the frequency of facing disturbing behavior(s) increases: χ^2 (1, $N = 268$) = 4.52; $p < 0.05$. No relation was found between sharing passwords with others and receiving unwanted e-mails, receiving infected e-mails: χ^2s (1, $N = 269$) = 1.92, and 0.003 respectively; $p > 0.05$. It is found that there is a positive relation between being exposed to disturbing behaviors online and being disturbed through cell phone, receiving unwanted e-mails, and receiving infected e-mails: χ^2s (1, $N = 269$) = 17.24, 30.11, and 15.08 respectively; $p < 0.01$.

Engagement in cyberbullying

When asked about their engagement in cyberbullying, 59.5% of the students reported saying things online that would not be said face to face,

TABLE 3.   FORMS OF EXPOSURE TO CYBERBULLYING ON THE INTERNET AND VIA CELL PHONES

Types of bullying	Percentage on the Internet (n = 97)	Percentage via cell phone (n = 66)
Being teased	13.2	13.9
Spreading rumors	14.7	16.4
Being insulted	20.2	20.2
Being threatened	18.6	22.8
Pictures displayed by others without one's consent	15.5	—
Other	17.8	26.6

*Because participants circled more than one answer choices, percentages were calculated according to the number of behaviors reported instead of the number of participants.

and 35.3% reported introducing themselves as someone else on the Internet ($N = 269$). More than a quarter (26.8%) of the students reported saying things that were not true, 13% reported sending infected e-mails, and 6.7% reported displaying pictures of other people without their consent.

A positive correlation was found between the frequency of Internet use and sending infected e-mails and saying things online that would not be said face to face (Mann Whitney Zs = -3.41 and -3.67 respectively, $p < 0.01$). Yet, no relation was found between the frequency of Internet use and displaying someone's picture without consent, introducing oneself as someone else, and saying untrue things on the Internet (Mann Whitney Zs = -1.40, -0.01, and -1.26 respectively, $p > 0.05$). In addition, no relation was found between sharing passwords with others and sending infected e-mails, displaying someone else's picture without consent, saying things online that would not be said face to face, and saying untrue things on the Internet: χ^2s (1, $N = 269$) = 0.39, 0.06, 1.58, and 1.97 respectively; $p > 0.05$.

There is a positive relation between being exposed to disturbing behaviors online and sending infected e-mails, displaying someone else's pictures without consent, and introducing oneself as someone else: χ^2s (1, $N = 269$) = 12.53, 10.94, and 6.70 respectively; $p < 0.01$. Yet, no relation was found between being exposed to disturbing behaviors on the Internet and saying things online that would not be said face to face and saying untrue things on the Internet: χ^2s (1, $N = 269$) = 2.66 and 0.10 respectively; $p > 0.05$. As the frequency of receiving unwanted e-mails increases, sending infected e-mails, displaying someone else's pictures without consent, and saying things online that would not be said face to face increases: χ^2s (1, $N = 268$) = 30.82, 5.46, and

4.02 respectively; $p < 0.05$. A relation was also found between receiving and sending infected e-mails: χ^2 (1, $N = 268$) = 33.67; $p = 0.000$.

As the frequency of sending infected e-mails increases, saying things online that would not be said face to face and saying untrue things on the Internet increases: χ^2s (1, $N = 269$) = 5.21 and 3.99 respectively; $p < 0.05$. No relation was found between sending infected e-mails and displaying someone else's pictures on the Internet without consent and introducing oneself as someone else on the Internet: χ^2s (1, $N = 269$) = 3.72 and 0.39 respectively; $p > 0.05$.

As displaying someone else's picture without consent on the Internet increases, saying things online that would not be said face to face, introducing oneself as someone else, and saying untrue things on the Internet increases: χ^2s (1, $N = 269$) = 6.92, 11.50, and 17.54 respectively; $p < 0.01$. As saying things online that would not be said face to face increases, introducing oneself as someone else and saying untrue things increases: χ^2s (1, $N = 269$) = 10.54 and 5.55 respectively; $p < 0.05$.

Coping strategies

The results show that students hold somewhat optimistic views on coping with cyberbullying: 49.4% of the students reported that they believe people who engage in cyberbullying will get caught, and 40.1% reported that they knew whom to seek help from when exposed to cyberbullying. In addition, when faced with disturbing behaviors online, students reported seeking more active solutions than passive ones to cope with cyberbullying: 30.6% reported that they would block the unwanted message or the person who is disturbing; 16.4% reported that they would tell the person to stop harassing;

8.1% reported changing their usernames; 15% reported telling their friends; and 10% reported telling their parents. Only 1% reported telling their teachers about the cyberbullying incident. Nine percent and 3.4% reported ignoring and not telling anyone ($N = 265$).

A relation was found between thinking that one will get caught while disturbing others on the Internet and the frequency of Internet use (Mann Whitney $Z = -2.27$, $p = 0.02$) and knowing whom to ask for help: χ^2 (1, $N = 264$) = 4.88; $p = 0.03$. As the frequency of Internet use increases, thinking that one will get caught while disturbing others on the Internet decreases. Yet, as knowing whom to ask help from increases, thinking that one will get caught while disturbing others increases: χ^2 (1, $N = 264$) = 4.88; $p = 0.03$.

DISCUSSION

Our findings suggest that adolescents are agents and daily consumers of communication and information technology. The frequent use of MSN-chatting (38.7%) among students suggests that students maintain a virtual presence and a social network in cyberspace. Students' reporting of cyberbullying through the Internet and cell phones, as well as the positive relation found between Internet use and being exposed to disturbing behaviors, receiving unwanted e-mails, and receiving infected e-mails suggests that students not only taking are advantage of technology for activities such as accessing more information, entertainment, and socialization, but also are becoming more vulnerable to the distress that comes with it.

Research on cyberbullying emphasizes the importance of security in the virtual world.[42] Yet, our findings suggest that cyberbullying is an issue not only of a person's security online but also of his or her virtual and/or immediate social relations. Although the more students share their passwords with others, the more they face disturbing behaviors, no relation was found between sharing passwords with others and receiving unwanted and infected e-mails on the Internet. Receiving unwanted and infected e-mails emphasizes the security on the Internet regardless of the social network students are in and is likely to be related to receiving spam e-mails. Students might be sharing their passwords with persons they feel close to, such as online and offline peers who may also be their harassers.

The ability to anonymously interact on the Internet contributes to a lower self-awareness in individuals and may lead them to react impulsively and aggressively to other individuals online.[38] Our sample supports this finding; we found that the most frequent behaviors students engaged in were saying things online that would not be said face to face, introducing oneself as someone else, and saying untrue things on the Internet. The positive relation between these behaviors suggests that engagement in one of these behaviors may instigate the others. These behaviors were also positively correlated with harassing behaviors such as sending infected e-mails and displaying someone else's picture on the Internet without consent, which suggests that students engage in harassing behavior(s) in the face of anonymity.

The time spent on the Internet is found to be related to the types of harassing behaviors students engage in. As students spent more time on the Internet, they were more likely to send infected e-mails and say things online that would not be said face to face. The lack of relationship between the frequency of Internet use and displaying someone's picture without consent, introducing oneself as someone else, and saying untrue things on the Internet suggests that students who engage in harassing behaviors that require technical knowledge and take a longer time to execute (e.g., sending infected e-mails) may spend more time on the Internet than those who engage in harassing behaviors that require less knowledge and are easy to execute (e.g., displaying someone else's picture without consent).

Our findings also show that as the frequency of Internet use increases, thinking that one will get caught while disturbing others on the Internet decreases. In addition, as knowing whom to ask help from increases, thinking that one will get caught while disturbing others increases. Perhaps the more time students spend on the Internet, the more they experience anonymous interactions and disturbing behaviors that may lead them to think it is hard to get caught on the Internet while disturbing others. Especially, this might be the case when students do not know whom to ask help from when faced with such behaviors. On the other hand, it seems that when students know whom to ask help from, they develop a positive attitude toward coping with cyberbullying.

Hunter et al. found that when bullied, most 9- to 14-year-old schoolchildren told their friends or families rather than their teachers.[43] In our data, we also found that when students were cyberbullied, most of them reported telling their friends. Students may be reluctant to tell their families and teachers about cyberbullying because they might find their friends more tech-savvy and therefore a better resource for

advice. Another explanation could be that peers are more important than families during adolescence and that students regard their friends as their confidants.[44,45]

Parents and teachers see physical bullying as more serious and harmful than verbal and indirect (relational) bullying and are less likely to intervene when children experience indirect bullying.[46,47] Yet, research shows that indirect bullying has adverse effects on children, such as depression.[48,49] Our data show that the most reported form of exposure to cyberbullying students experience is being insulted and being threatened. These behaviors that students are exposed to can be considered as indirect forms of bullying and may affect students' mental health.[5] The effects of cyberbullying on children's and adolescents' mental health need to be studied in order to develop counseling programs for victims of cyberbullying.

Overall, our findings are aligned with other studies conducted on cyberbullying in United States and Canada. Our data show that both boys and girls experience cyberbullying. Although Li found that more girls than boys were cyberbullied,[6] we found that more boys than girls were cyberbullies, cybervictims, and cyberbully-victims. Yet, adolescents in our sample reported being exposed to and engaged in disturbing behaviors similar to those found in previous research. This suggests that cyberbullying is a global phenomenon that must be addressed by international research. In addition, cyberbullying is a multifaceted problem that requires further study and additional measures to determine how to prevent it.[28] If parents, caregivers, and technology experts work together, they can help children with this potentially devastating form of abuse.[5]

Directions for future research

As technology is becoming a part of children's everyday life, children's exposure to cyberbullying is increasing. Although less than half of the students reported being exposed to cyberbullying, these self-reports may be an underestimation of actual occurrences of cyberbullying among students because cyberbullying is a new phenomenon among both students and adults. Students who have some exposure to cyberbullying may not have perceived their experience as disturbing enough to report; they may have seen it as part of their experience with technology that has already been granted. Therefore, there is a need for further research and analysis to determine the terminology on cyberbullying. For instance, the determination of whether cyberbullying is a form of direct or indirect bullying is a question that researchers must answer. Perhaps we will be able to separate cyberbullying that uses technology as a communication source to harass victims socially from cyberbullying that involves attacks against victims' electronic tools. Precise terminology will also help researchers to develop better measurements for cyberbullying and eventually improve our understanding of this phenomenon.

Another line of research needs to focus on the parallels between traditional bullying and cyberbullying. There is a dearth of research on whether traditional bullies, victims, and bully-victims carry their behaviors to the virtual environments. In addition, the duration of cyberbullying and its relation to the duration of traditional bullying, if there is any, needs to be explored to better understand the underlying processes of both bullying and cyberbullying. This line of research can also shed light onto the relationship between depression, aggression, antisocial behaviors, and cyberbullying.

Finally, cyberbullying is an issue discussed by educational scientists, psychologists, and other researchers in the United States and Canada for the last 5 years. It is predicted that cyberbullying will be discussed more than face-to-face bullying in educational systems in the near future. However, research has shown that this issue is not just a continental or regional problem but also a global one. Therefore, intervention programs for cyberbullying should not be limited to teachers, principals, and families in a region as with traditional bullying. Rather, intervention programs should be developed to meet an international need to prevent and cope with cyberbullying.

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