An Examination of Preservice Teachers' Perceptions about Cyberbullying

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Today, in parallel with the increase of technology use, cyberbullying becomes one of the major issues in schools affecting students' lives negatively similar to bullying. To minimize the negative effects of cyberbullying and to get preservice teachers ready for managing cyberbullying, it is necessary to examine preservice teachers' perception about cyberbullying. For this mission, the present study was conducted. Data were collected using a web-based survey form from seven different state universities in Turkey. One hundred and sixty three preservice teachers, who are senior level students, participated in the study. The results indicate that a majority of the preservice teachers recognize cyberbullying as a problem and understand its negative effects on students, as well as the need for school commitment on preventing cyberbullying. Although a majority of the preservice students have a high level of awareness for cyberbullying, they indicate the need for cyberbullying training during university education.

Keywords: Cyberbullying; Bullying; Teacher Training; Elementary and Secondary Schools; Technology Use

INTRODUCTION

Technology has been widely used by people all around the world regardless of their ages or backgrounds. In parallel with the technology integration initiatives in schools, a majority of today's students have more access to technology at schools as well as at their homes. Since it is believed that the use of technology facilitates student learning, teachers are encouraged to integrate technology into their classrooms (Ertmer & Ottenbreit-Leftwich, 2010). As a result, many teachers have focused on the utilization of technology in their courses. Most of the research studies focused on the positive effects of technology in classrooms. On the other hand, a very limited number of studies focused on the negative effects of technology. This study focuses on one of the negative effects of technology in the form

of cyberbullying in classrooms. Cyberbullying is defined by Patchin and Hinduja (2006) as "willful and repeated harm inflicted through the medium of electronic text" (p.152) and it is a relatively new phenomenon that is recognized as a serious problem in school settings (Li, 2006). This study explores the concept of cyberbullying from preservice teachers' perspective. In particular, this study investigates how preservice teachers view cyberbullying and how much they are equipped with knowledge and skills to take actions to minimize the negative effects of cyberbullying on students' lives.

Bullying

Bullying has been identified as one of the major issues in schools for more than forty years. According to the 2002 Safe Schools Initiative Report, 37 school shootings occurred between 1974 and 2000 in the United States. "Almost three-quarters of the attackers felt persecuted, bullied, threatened, attacked or injured by others prior to the incident" (Vossekuil, Fein, Reddy, Borum, & Modzeleski,2002, p.24). As a consequence of bullying, some school shootings took place because

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State of the literature

- There is still a gap in the literature focusing on cyberbullying and how preservice teachers perceive cyberbullying.
- Cyber bullying aaffects students' lives in different ways and causes some problems including emotional distress, insecurity, anxiety, loneliness, frustration, anger, lower self-esteem, depression, and being suicidal.
- Educators, parents, and students should be provided with some resources to develop awareness of cyberbullying, preventive strategies, and comprehensive approach to deal with cyberbullying.
- Teachers' perceptions and beliefs play an important role in teaching and in their teaching practices with regard to developing and managing skills and knowledge about cyberbullying.

Contribution of this paper to the literature

- This is the first study conducted in Turkey to examine preservice teachers' perception about cyberbullying.
- This study reveals that preservice teachers are aware of the cyberbullying problem; however, they do not believe that they are equipped with sufficient knowledge and skills to assist students in coping with the problem.
- The findings suggest that preservice students need to be provided with a systematic training on cyberbullying before they start the teaching career.

those students who were bullied sought retaliation (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002).

Bullying occurs when a person is "exposed, repeatedly and over time, to negative actions on the part of one or more other persons" (Olweus, 1993a, p.87). In order to label the action as bullying, there should be imbalance between parties in terms of strength or power relations (Olweus, 1993a). Also, there are two main forms of bullying; direct and indirect (Olweus, 1993a). If a student is attacked by a bully/bullies physically (e.g., punching, pushing, and kicking), this is defined as direct bullying. On the other hand, indirect bullying (e.g., name calling) occurs when a student socially isolated or excluded from a group (Olweus, 1993a; Griezel, Craven, Yeung, & Finger, 2008). Male students are likely to conduct bullying more than female students in middle schools (Goldbaum, Craig, Pepler, & Connolly, 2007). While bullying peaks in middle schools, this behavior has a tendency to decrease among high school students (Hoover & Olsen, 2001; Swearer, Espelage, Vaillancourt, & Hymel, 2010).

Many students do not communicate with adults, such as teachers, parents, and school administrators, when they are being bullied (Li, 2008). Since the bullying problem is not shared with adults to reach a solution for the problem, the effects of bullying might be devastating. These effects are depression, low self-esteem, health problems, poor grades, and suicidal thoughts (Roland, 2002). With the rapid development of technology, as well as technology playing an increasing role in our daily lives, bullies have extended their range of activities using the cyberspace.

Cyberbullying

Technology becomes more available for students everyday and presents a lot of opportunities for them. These opportunities are vulnerable to the manipulations in a negative manner; therefore, the use of technology with deviant purposes may turn into a common practice (Barak, 2005). According to Hinduja and Patchin (2009), the negative forms of technology use include pornography, harassment, threatening, and social exclusion.

Since students use internet and internet-based communication tools more than ever before, they feel confident and demonstrate more violent behaviors even though they do not dare to say or do such things to someone face to face (Lenhart, Madden, & Hitlin, 2005). Furthermore students prefer communicating with peers and strangers using cyber tools such as social networking tools, emails, online games and chats. The more students are involved in cyberspace, the more likelihood they feel isolated and alone in this environment (Gross, Juvonen, & Gable, 2002).

To understand how cyberbullying happens, it is important to look at the categories of cyberbullying defined by Willard (2007a), namely, flaming – sending angry and vulgar messages; harassment – sending nasty, mean, and insulting messages repeatedly; denigration – sending or posting gossip or rumors about a person to damage his or her reputation or friendships; impersonation – pretending to be someone else and sending or posting graphics or text messages to discomfort someone or to damage his or her reputation or friendships; outing – sharing someone's confidential or embarrassing information or graphics electronically; trickery – use some methods to have someone's secrets or embarrassing information, then posting these information or graphics to cyberspace; exclusion – deliberately and cruelly excluding someone from an online group or environment; cyberstalking – repeatedly and intensely harass and denigrate someone with threats or creating serious fear.

In parallel with the increase of technology use, cyberbullying takes more place among students and becomes a serious problem in schools similar to

bullying. According to recent studies, the consequences of cyberbullying demonstrate similarities with traditional bullying effects on students (Kowalski, Limber, & Agatston, 2008). Cyberbullying affects students' lives in different ways and causes some problems including emotional distress, insecurity, anxiety, loneliness, frustration, anger, lower self-esteem, depression, and being suicidal (ABC News, 2007, Beran & Li, 2007, Breguet, 2007; Patchin & Hinduja, 2006; Ybarra, Mitchell, Wolak, & Finkelhor, 2006). According to Patchin and Hinduja (2010), the prevalence rates of cyberbullying ranged from 9.1% to 23.1% for offending and from 5.7% to 18.3% for victimization. However, some studies, which used free time frame of cyberbullying, suggested that victimization rates of cyberbullying were between 20% and 40% (Beran & Li, 2007, Breguet, 2007; Patchin &Hinduja, 2006; Ybarra, Mitchell, Wolak, & Finkelhor, 2006).

With the technology use, school bullying has evolved to cyberbullying and it is not confined in school borders. Due to the nature of cyberbullying, students become naive to be bullied by several information and communication technology means. According to the literature, there are some indications which may assist us to identify those who cyberbully or are being cyberbullied. Hinduja and Patchin (2007) have listed cyberbullying warning signs that may indicate children experiencing cyberbullying. These warning signs are divided into two parts; cyberbully victim warning signs and cyberbully aggressor warning signs. Cyberbully victims quickly stop using computer, act suspiciously when instant message, text message, or email pops up on the computer screen, appear uncomfortable about going to school or outside, seem angry and upset after using the computer, avoid talking about what they are doing on the computer, and strangely cut communication with usual friends and family members. The cyberbully aggressors unexpectedly switch screens or close programs when someone approaches to them, use the computer any time during the night, get disturbed if they cannot use the computer, excessively laugh while using the computer, avoid talking about what they are doing on the computer, and use multiple online accounts or use an account that belongs someone else.

These signals are important since those students experiencing cyberbullying do not share their experiences with adults, such as parents, teachers, and school administrators (Li, 2007). According to Mishna, Saini, and Solomon (2009), there are several reasons for students hiding the fact that they are cyberbullied. First, students think that their computer access privileges will be removed by parents. In addition, adults would not reach evidences of cyberbullying to identify the cyberbully, or they would even make the situation worse if they tell them. Last, there is nothing teachers would

do since cyberbullying mostly occurs off-campus. Due to all of the reasons above, teachers and parents should be aware of the signals to be able to identify their children and students being cyberbullied.

Schools should take some actions to deal with cyberbullying and act proactively since the cyberbullying affects student's academic achievement negatively, as well as causing stress, emotional problems, and suicide even though cyberbullying occurs mostly off-campus. Therefore, schools need to establish preventive strategies to tackle with the effects of cyberbullying on students. Willard (2007b) identified the following steps for this purpose:

✓ *Save the evidence that is necessary when cyberbullying needs a legal response.*

✓ *Conduct a threat assessment if cyberbullying report raises concerns of substantial disruption, violence or suicide and contact law enforcement if the position appears to present a dangerous situation or if there are any threats of violence.*

✓ *Assess the response options to determine appropriate responses when cyberbullying occurs on- or off-campus. If it happens off-campus, provide assistance to the victim.*

✓ *Identify the perpetrator who may be unknown or may be masquerading as someone else by obtaining assistance of technical services personnel.*

✓ *Support the victim and parents; the school should provide assistance and support and offer counseling, mediation, and technical assistance or direct parents to other resources, such as legal assistance or law enforcement.*

✓ *Provide guidance on how to remove or stop cyberbullying, such as contacting the internet service provider (ISP), forwarding messages to the ISP, and requesting account be terminated; if cyberbullying occurs with web site use, notifying site manager and requesting removal; if cyberbullying occurs using cell phone, tracing number and contacting the phone company; using filtering or block functions; changing email or cell phone numbers.*

✓ *Seek to use informal resolution strategies, such as contacting the parents of the student perpetrator and requesting their assistance, offering counseling or mediation in the school, determining the root of the cyberbullying.*

In addition, educators, parents, and students should be provided with some resources, such as training, workshops, brochures, lesson plans, and class activities to develop awareness of cyberbullying, preventive strategies, and comprehensive approach to deal with cyberbullying (Willard, 2007c; Bhat, 2008; Diamanduros, Downs, & Jenkins, 2008).

Educators are not usually clear about how to approach students or children who are experiencing cyberbullying since cyberbullying is still a blurring issue

(Shariff, 2005). Some educators would avoid paying attention to cyberbullying because it mostly does not occur on campus; however, the effects of cyberbullying on students impact their learning and are experienced in the school environment (Bhat, 2008). It is important that if teachers are aware of bullying and dedicated, bullying in schools can be reduced by almost 50% (Olweus, 1993b). In parallel with this, teachers' perceptions and beliefs play an important role in teaching and in their teaching practices with regard to developing and managing skills and knowledge about cyberbullying (Li, 2008). Since change requires disposing of current beliefs and replacement of current beliefs with new ones occurs slowly (Nespor, 1987), teachers would need to be prepared to deal with bullying, as well as cyberbullying, before they start teaching. Therefore, in order to prevent cyberbullying and to prepare preservice teachers for cyberbullying, it is important to examine preservice teachers' perception about cyberbullying beforehand. In the literature, there is limited research conducted on preservice teachers' perception related to cyberbullying so the information from this study may provide valuable insights into cyberbullying, as well as into the Turkish research literature. In addition, it may contribute helpful information to educational policy makers.

Research Questions

In order to explore cyberbullying through examining preservice teachers' perceptions about cyberbullying, the following questions will be addressed in this study:

- ✓ *To what extent are preservice teachers concerned about cyberbullying?*
- ✓ *How confident do preservice teachers feel in identifying and managing cyberbullying?*
- ✓ *Are there any differences between male and female preservice teachers' concerns regarding cyberbullying?*
- ✓ *Are there any differences between male and female preservice teachers' confidence to deal with cyberbullying?*
- ✓ *To what extent do preservice teachers think that school and teacher commitments are important?*
- ✓ *To what extent do preservice teachers feel prepared to manage cyberbullying?*

METHOD

Since there is a lack of research on preservice teachers' perception, this study will replicate a previous research study published by Li (2008). In addition to what Li (2008) investigated, this study also takes possible gender related differences into consideration.

Data were collected using a web-based survey form in three weeks from seven different state universities in Turkey. The web-based survey form link was sent to instructors working at these universities. The instructors submitted the web link to student listserves and sent emails to students' emails. From eight different major areas, about 840 fourth grade students who were not required to attend to the university regularly were requested to participate in the study. Out of 840 preservice teachers, 163 (19%) participated in this study. These preservice teachers consisted of 88 females (54%) and 75 males (46%). Teacher education programs are four-year degree programs in Turkey. In order to enter these programs, students should pass a national university entrance exam following graduation from high school. During their education, these students acquire theoretical and practical knowledge and skills necessary to teach. At the end of the university education, preservice teachers are required to pass a national exam to teach at state elementary or secondary schools.

Li's Survey on School Cyberbullying for Preservice Teachers (2008) was adapted for the study. The instrument's Alpha coefficient of the internal reliability was 0.88. It was translated into Turkish by two experts. These two translations were compared to each other and they were translated back to English to make sure if there was no meaning loss. After translation/back translation process, revisions were made to finalize the survey instrument.

At the beginning of the instrument, there was information about cyberbullying provided to establish a general understanding. There were a total of 21 items related to preservice teachers' perceptions and their experiences about cyberbullying. Each item has a five Likert-type scale; from strongly disagree to strongly agree. Also, the instrument included preservice teachers' demographic information, such as university, major, and gender. At the end of the instrument, there was an open ended question asking participants to provide any other comments about cyberbullying.

RESULTS

In order to depict the preservice teachers' concerns about cyberbullying, three items were used in the survey: "cyberbullying is a problem in schools", "children are affected by cyberbullying', and "I am concerned about cyberbullying". Based on the results in Table 1, majority of the preservice teachers perceive cyberbullying as a problem in schools. Female preservice teachers (85.2%) believe that cyberbullying is a more serious problem than do male preservice teachers (69.3%). Similarly, most of the preservice teachers, regardless of gender, (85.9%) consider that cyberbullying has an influence on children. Female preservice teachers (90.9%) are more persuaded about effects of cyberbullying compared to the male preservice teachers (80.0%). Furthermore,

almost 77% of the preservice teachers reported that they are concerned about cyberbullying. Female preservice teachers are more concerned than male ones (Table 1). These results contradict with what Li (2008) reported in two respects. Turkish participants were found more concerned about cyberbullying compared to the Canadian counterparts. According to Li (2008), Canadian preservice teachers appear to believe that cyberbullying problem in school is not as serious as one may think. However, Turkish preservice teachers hold a strong belief towards its seriousness in school.

The previous analysis indicated that preservice teachers in Turkey express substantial concern about cyberbullying. Two statements were included in the survey to measure how confident they are in identifying and managing cyberbullying, namely, "I feel confident in identifying cyberbullying", and "I feel confident in

managing cyberbullying". The analysis point out that almost half of the preservice teachers believe that they are confident in both identifying (51.5%) and managing (48.5%) cyberbullying (Table 2). These results are surprising compared to Li's (2008) study. According to Li's study results, most preservice teachers reported that they do not feel efficacious to identify and manage cyberbullying. Previous analysis also suggested that female preservice teachers are more concerned about cyberbullying than male ones. Not surprisingly (or surprisingly), male preservice teachers feel more confident in identifying and managing cyberbullying as opposed to female ones.

Another important issue investigated in the present study was preservice teachers' perception about school commitment regarding preventing cyberbullying. The school commitment includes school policy, teacher

Table 1. Percentages of Preservice Teachers Concerned about Cyberbullying

Items	Disagree or strongly disagree	Neutral	Agree or strongly agree
Problem in schools	9.2%	12.9%	77.9%
Male	14.7%	16.0%	69.3%
Female	4.5%	10.2%	85.2%
Children are affected	7.4%	6.7%	85.9%
Male	8.0%	12.0%	80.0%
Female	6.8%	2.3%	90.9%
I am concerned	13.5%	9.2%	77.3%
Male	14.7%	13.3%	72.0%
Female	12.5%	5.7%	81.8%

Table 2. Preservice Teachers' Confidence

Questions	Disagree or strongly disagree	Neutral	Agree or strongly agree
Identify cyberbullying	17.2%	31.3%	51.5%
Male	20.0%	25.3%	54.7%
Female	14.8%	36.4%	48.9%
Manage cyberbullying	14.1%	37.4%	48.5%
Male	12.0%	49.3%	50.7%
Female	15.9%	37.5%	46.6%

Table 3. Percentages of Preservice Teachers' Beliefs about School Commitment

Questions	Disagree or strongly disagree	Neutral	Agree or strongly agree
School policies	4.3%	5.5%	90.2%
Training teachers	6.1%	5.5%	88.3%
Curriculum	5.5%	3.1%	91.4%
Classroom activities	7.4%	8.6%	84.0%
School-wide activities	8.6%	10.4%	81.0%
Discuss with parents	6.7%	8.0%	85.3%
School Counseling	9.2%	11.7%	79.1%

Table 4. Preparation of Preservice Teachers

Questions	Disagree or strongly disagree	Neutral	Agree or strongly agree
University prepares me	51.5%	23.9%	24.5%
Want to learn more	11.0%	9.8%	79.1%

training, curriculum, class activities, school-wide activities, counseling, and parent involvement. In particular, six statements in the survey were used to describe preservice teachers' concerns related to school commitment: "Schools should develop policies on cyberbullying"; "Schools should use professional development days to train staff about cyberbullying"; "Teachers should use a curriculum on cyberbullying to teach children"; "Teachers should organize classroom activities to deal with cyberbullying"; "School administrators should organize school-wide activities to deal with cyberbullying"; and "Schools should discuss cyberbullying with parents".

The findings of the current study supported the results of Li's (2008) study by confirming that most of the preservice teacher reported that policy development about cyberbullying (90.2%), talking with parents about cyberbullying (85.3%), and training educators about this problem (88.3%) should be part of the school commitment. However, as opposed to Li's (2008) sample, our sample strongly supported the idea that classroom activities (84.0%), as well as school-wide activities (81.0%), school counseling (79.1%) and curriculum (91.4%) are also important elements to deal with cyberbullying in the school environment (Table 3).

The final analysis was related to teacher education programs. In the survey, two items, "my current university education has been preparing me to manage cyberbullying" and "I want to learn more about cyberbullying in my university education", were used to evaluate whether education get preservice teachers ready to manage cyberbullying in the event it occurs. Half of the preservice teachers reported that the program in which they were in does not provide sufficient education to manage cyberbullying, only about one fourth of them believe that the program helps them manage cyberbullying. On the other hand, a vast majority of the preservice teachers (79.1%) are willing to learn more about cyberbullying (Table 4). These findings contradict somehow with what Li (2008) reported. Majority of the Canadian preservice teachers did not believe that their program prepares them to manage cyberbullying and less than half of them are eager to learn more about cyberbullying.

DISCUSSION AND CONCLUSION

Cyberbullying is a new phenomenon in Turkish schools. However, the results of the present study indicate that Turkish preservice teachers believe cyberbullying is a problem in schools. Furthermore, the majority of preservice teachers reveal their concern about cyberbullying. Most of the preservice teachers (85.9%) are aware of the negative effects of cyberbullying on student lives. It is important to state that female preservice students, compared to male ones,

believe more that cyberbullying is a problem and it affects students negatively. Although Li's study reported that Canadian preservice teachers did not see cyberbullying as a problem in schools and they were not concerned about cyberbullying, this study revealed positive results regarding Turkish preservice teachers' perception about seeing cyberbullying as a problem. A possible explanation is that Turkish preservice teachers were provided with information about cyberbullying on the questionnaire to set up a general understanding and a web-based survey was used to gather data (as opposed to paper-based survey). Therefore, the preservice teachers participated in the present study, compared to the Canadian counterparts, are likely to have more experience with technology use and they may already know possible negative effects of technology use.

The second important finding is about preservice teacher's confidence regarding identifying and managing cyberbullying. Although the majority of Canadian preservice teachers do not feel confident in identifying and managing cyberbullying, almost half of the Turkish preservice teachers do not feel confident in handling cyberbullying. Among Turkish preservice teachers, there seems to be a gap between being aware of cyberbullying and feeling confident in dealing with cyberbullying. It appears that preservice teachers may not consider themselves having adequate knowledge and skills in coping with cyberbullying. According to Ertmer and Ottenbreit-Leftwich (2010), "the gap between what teachers know and what they do relates to their confidence, or self-efficacy, for performing the task successfully" (p.269). Therefore, to help preservice teachers feel confident in identifying and managing cyberbullying, they may need to be provided with training related to cyberbullying. Another interesting finding is about gender difference in terms of their being confident in dealing with cyberbullying. While female preservice teachers believe that cyberbullying is a problem in schools more than do male students, female students feel confident in managing cyberbullying less than do male students. This difference needs to be taken into consideration because a majority of the students regardless of gender think that university education does not provide them with sufficient training about cyberbullying.

In parallel with the results of Li's (2008) study, most preservice teachers have indicated that Ministry of Education or schools need to develop policies and training programs for both teachers and school administrators to promote cyberbullying awareness and to develop prevent strategies for cyberbullying. Most of the preservice teachers believe that student counseling, curriculum, class activities, media coverage, and parent involvement are important factors in dealing with cyberbullying as indicated in the literature (Bhat, 2008, Diamanduros, Downs, & Jenkins, 2008). Especially,

having parents informed about cyberbullying is important because cyberbullying occurs mostly off-campus. Thus, parents need to be aware of cyberbullying warning signs that children show at home where many students have access to personal computers.

The findings also show that only 24.5% of the preservice teachers believe that university education prepares them to deal with cyberbullying even though half of the participants feel confident in managing cyberbullying. Furthermore, most of the students (79.1%) wanted to learn more about cyberbullying during their education because most of them do not believe that university education covers cyberbullying. These results are aligned with the results of Li's (2008) study. These findings reveal that some students may learn something about cyberbullying and its negative effects on students from other resources, such as online communities, emails, and websites. In addition, a possible reason for these results is that students participating in the study may be capable of using information and communication tools since the participants of the study were required to use computers and the Internet to participate in this study via a web-based survey.

In this study, significant implications are introduced. One of the important implications is that we need to provide preservice students with a systematic training on cyberbullying before they start the teaching career. In the Turkish context, most of the preservice teachers are aware of the cyberbullying problem, but they do not feel confident enough in managing cyberbullying. Moreover, they declared a need to learn more about cyberbullying. According to the literature, there is a relationship between teacher's beliefs and their practice in schools (Chan, & Elliot, 2004) and preservice teachers are likely to hold beliefs regarding teaching and learning in parallel with how they were exposed to instruction throughout their education life (Cheng, Chan, Tang, & Cheng, 2009). Therefore, in order to increase preservice teacher's confidence level and to meet their need, they need to be equipped with more knowledge and skills about cyberbullying during teacher education. Another implication is about school policy. Ministry of Education or schools need to create a safe environment in which the schools facilitate the prevention of cyberbullying and help both students and parents fight with cyberbullying via developing a school policy. Schools need to develop policies related to the ethical use of computers, cyberbullying, and collaboration with the law enforcement, as well as programs related to student counseling and training for parents.

In Turkey, more preservice teachers get accustomed to use technology not only for their personal needs, but also for their professional needs in parallel with today's rapid technology development. Also, national curricula of elementary and secondary education require teachers to integrate technology in their classroom. Therefore, it is believed that the participating preservice teachers in the study had technology proficiency, although information regarding their level of proficiency was not collected in the questionnaire.

Of the 840 solicited preservice teachers, who are senior level students, only 19% participated in the study. The return rate seems to be lower than expected. One of the major reasons may be that senior students do not often come to the university because they are required to practice at elementary and secondary schools. Another reason may be that the senior students, to get appointed to a teacher position in state schools, are supposed to pass a national exam, so they may disregard the questionnaire used for this study as they may be busy with preparing for the exam.

Future studies on preservice teachers' perception about cyberbullying may focus on gender differences among these students and comparisons between preservice and inservice teachers' perceptions.

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