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Journal of Adolescent Health 41 (2007) S51–S58

JOURNAL OF
ADOLESCENT
HEALTH

Original article

Does Online Harassment Constitute Bullying? An Exploration of Online Harassment by Known Peers and Online-Only Contacts

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Manuscript received June 19, 2007; manuscript accepted August 28, 2007

Abstract

Purpose: To shed light on the nature of online harassment and the extent to which it may be bullying by examining differences in the characteristics of harassed youth, online harassment incidents, and distressing online harassment based on the identity of online harassers (known peer vs. online-only contact).

Methods: A telephone survey of a nationally representative sample of 1500 youth Internet users, ages 10 to 17, conducted between March and June 2005.

Results: Nine percent (n = 129) of youth were harassed online in the past year, 43% (n = 56) by known peers and 57% (n = 73) by people they met online and did not know in person (online-only contacts). Most online harassment incidents did not appear to meet the standard definition of bullying used in school-based research and requiring aggression, repetition, and power imbalance. Only 25% of incidents by known peers and 21% by online-only contacts involved both repeated incidents and either distress to targets or adult intervention.

Conclusions: In many cases, the concept of "bullying" or "cyber-bullying" may be inappropriate for online interpersonal offenses. We suggest using "online harassment," with disclaimers that it does not constitute bullying unless it is part of or related to offline bullying. This would include incidents perpetrated by peers that occur entirely online, but arise from school-related events or relationships and have school-related consequences for targets. The Internet provides opportunities for the extension of conventional school bullying to new venues. Those who study conventional school bullying should include online forms of the behavior in research, prevention, and intervention paradigms. © 2007 Society for Adolescent Medicine. All rights reserved.

Keywords: Internet; Online harassment; Bullying

As youth Internet use has increased, so have concerns about young people being subjected to online harassment. However, there is little published research about the prevalence of being harassed online, its seriousness, whether and how often it conforms to definitions of school bullying, and who perpetrates it. Although media reports about "cyber-bullying" have focused on school-related incidents perpetrated by peers, youth Internet users also report being harassed by people they know only online [1].

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Prevalence and characteristics of online harassment

Researchers have not devised standard definitions of online harassment, and the few surveys that exist have used different definitions and time frames, finding widely varying rates. For example, a study published in 2006 conducted with an online convenience sample found that 29% of youth had ever been bullied online, with *online bullying* defined to include "bothering someone online, teasing in a mean way, calling someone hurtful names, intentionally leaving persons out of things, threatening someone and saying unwanted, sexually related things to someone" [2]. In a study conducted in 2007 with an online panel of youth ages 13 to 17, 43% had experienced *cyberbullying* in the past year, defined as "use of the Internet, cell phones, or other tech-

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doi:10.1016/j.jadohealth.2007.08.019

nology to send or post text or images intended to hurt or embarrass another person" [3].

Two telephone surveys by the authors of national samples of youth Internet users ages 10 to 17, provide more conservative numbers and greater detail. In 2000, 6% said they had been subjected to *online harassment*, defined as "threats or other offensive behavior (not sexual solicitation) sent online to the youth or posted online about the youth for others to see" [4]. In 2005, this number rose to 9% [1]. Among harassed youth, 35% said the harasser had used the Internet to post or send messages about them for others to see. The remaining 65% were bothered or harassed in one-on-one exchanges with harassers. Also, between 2000 and 2005, the proportion of youth who used the Internet to "harass or embarrass someone [they] were mad at," increased from 1% to 9% [1].

In the 2005 survey, 89% of youth harassed online were ages 13 to 17 [1]. This suggests that many targets of online harassment are older than targets of offline bullying, who tend to be of middle school age [5]. Over half (58%) of targets were female [1]. Over half (55%) of harassers were people youth had met online and did not know in person. Using instant messaging, going to chatrooms, and keeping online journals or blogs were related to being harassed online [6]. Also, youth who reported online harassment had poorly developed social skills, as measured by the Child Behavior Checklist (CBCL), and more offline interpersonal victimization (e.g., peer and sibling assaults) [6]. Being harassed online was also related to harassing others online, suggesting some youth may be so-called "provocative" or "bully-victims," a group also observed in offline incidents [7,8].

Does online harassment constitute bullying?

Much bullying occurs in school [5,9], but how often online harassment arises from incidents at school is unknown. As noted, much online harassment is perpetrated by online contacts that youth do not know in person. Online harassment precludes physical acts of violence, and it may be less threatening because harassers cannot use physical attributes such as size and tone of voice to intimidate. On the other hand, verbal aggression in the form of threats, rumors, and gossip is a form of bullying [5,8] that the Internet is well suited to. Two studies have found considerable overlap among victims of school bullying and online harassment, using convenience samples of youth [10,11].

It is also not clear how often online harassment would qualify as bullying under the definition used in school bullying research, which requires three elements: (1) aggressive acts, verbal included, made with harmful intent, (2) repetition, and (3) an imbalance of power between the perpetrator and target [8]. Although we did not have information about harassers' intent, 62% of youth harassed online were not distressed, implying they did not view the experience as serious or harmful [1]. Only 32% experienced chronic incidents, defined as three or more in the past year [6]. Further, 49% of targets terminated the harassment easily with actions such as blocking the harasser, and in other cases the harassment stopped with no action by the target, or the youth simply ignored the harasser [1]. These easy terminations suggest much online harassment may not involve imbalances of power in which targets have difficulty defending themselves from aggressors [8]. On the other hand, the nature of the Internet creates the potential for repeated victimization, and when harassment is posted online, it may not be easy for a target to terminate the situation. Thirty-eight percent of youth were distressed by the online harassment they experienced. Girls and preteen youth were more likely to be distressed [6]. Harasser identity could play a role in whether online harassment amounts to bullying. Online harassment by people youth know only online could involve bullying less often than harassment by known peers, because bullying has been defined based on the dynamics of face-to-face peer relationships.

The aim of this paper is to shed light on the nature of online harassment and the extent to which it can be seen as bullying. To this end, we examine differences based on the identity of online harassers (known peer versus online-only contact) in terms of the characteristics of harassed youth, online harassment incidents, and distressing online harassment, using data from our 2005 survey of youth Internet users.

Methods

We used telephone interviews conducted between March and June 2005 to gather information from a national sample of youth Internet users. The research was approved by the University of New Hampshire Institutional Review Board.

Participants

Participants were 1500 youth ages 10 to 17 ($M = 14.24$, $SD = 2.09$), English speaking, who had used the Internet at least once a month for the previous 6 months. Of those, 9% (n = 130) reported they had been harassed online in the past year [1]. Because this paper compares youth harassed by known peers or online-only contacts, to those not harassed, we excluded one anomalous case of a youth harassed by an adult known in person. This left a sample size of 1499 (mean age = 14.2 years, $SD = 2.1$ years). Girls were 51% of the sample. Seventy-six percent self-identified as white and 13% as black. Almost 1 in 10 (9%) self-identified as Hispanic. Fifty-four percent came from families with an educational level of college graduate or higher. Although well-educated, prosperous families and white individuals were overrepresented in the sample, they approximated the population of youth Internet users at the time of data collection [12].

Procedure

The sample was drawn from a national sample of households in the United States with telephones developed by random digit dialing. Details about the dispositions of the numbers dialed along with a more detailed description of the methodology can be found in other publications [1,6]. Youth were interviewed with parental assent and their own verbal consent. Youth interviews were scheduled at youths' convenience, when they could talk freely and confidentially. The average youth interview lasted about 30 minutes.

The response rate, based on standard guidelines promulgated by the American Association for Public Opinion Research was 0.45 [13]. This rate, lower than was typical of surveys in earlier decades, is in line with other recent scientific household surveys [14], which continue to obtain representative samples and provide accurate data about the views and experiences of Americans despite lower response rates [15].

Measures

Online harassment was determined based on two questions asked of all respondents: (1) "In the past year, did you ever feel worried or threatened because someone was bothering or harassing you online?" and (2) "In the past year, did anyone ever use the Internet to threaten or embarrass you by posting or sending messages about you for other people to see?" We coded youth who answered yes to either of these questions as reporting online harassment.

We asked youth a series of questions about the harassment incident. If youth had been harassed online more than once in the past year, we asked them about the most bothersome incident, or most recent if none was most bothersome. Youth who knew harassers in person were categorized as harassed by known peers. All of the known peer harassers were within 2 years in age of the youth they harassed. Youth who knew harassers only online were categorized as harassed by online-only contacts. Incidents which included harassers calling youth or coming to youths' homes were designated as involving offline contact. Youth who rated themselves very or extremely upset or afraid as a result of an incident (4 or 5 on a scale of 1 to 5) were categorized as distressed.

Demographic characteristics. Parents reported on household education and income, family structure, and youth age and sex. Youth reported on race and ethnicity. Youth age was dichotomized as 10 to 12 versus 13 to 17. Household education was dichotomized as at least some college versus less. Household income was dichotomized as $75,000 or more versus less.

Characteristics of Internet use. We created a composite variable for high Internet use based on youth estimations of time spent online (days per typical week and hours per typical day) and self-ratings of experience with and importance of the Internet, on scales of 1 to 5. These four variables were included in a factor analysis, with one latent variable indicated (Eigenvalue, 1.71; % of variance, 42.9). A summation score was created ($M = 0.41$, $SD = 0.31$) and dichotomized at 1 *SD* above the mean to reflect a high level of Internet use. We also asked where youth used the Internet (e.g., home, school) and about interactive online activities (e.g., instant messaging, chatrooms). We asked if youth had used the Internet to harass or embarrass people they were mad at. All questions referred to events in the past year, and these variables were dichotomous.

Psychosocial characteristics. We asked youth to rate on a 4-point Likert scale (1 = all the time, 4 = rarely/never) how frequently their main caregiver did the three following things: (1) nagged, (2) yelled, and (3) took away privileges. Based upon exploratory factor analysis suggesting a common latent factor (Eigenvalue, 1.69; % of variance, 56.2), we created a composite variable to measure parent–child conflict ($M = 3.98$; $SD = 1.43$). Due to indications of nonlinearity, this was dichotomized at 1 *SD* above the mean to reflect high conflict.

Using selected questions from the Juvenile Victimization Questionnaire [16], we asked youth about sexual or physical abuse in the past year (yes/no). These victimizations were combined to ensure sufficient numbers of youth within categories to allow statistical comparison. Offline personal victimization happened when youth experienced at least one of the following in the past year (yes/no): being attacked generally, hit or jumped by a gang, hit by peers, picked on by peers.

We assessed borderline or clinically significant behavior problems using the Youth Self-Report of the Child Behavior Check List (CBCL) [17] including four subscales: aggression, rule-breaking, social problems, and depression. We dichotomized scores to identify youth with borderline or clinically significant scores. All items referred to the past 6 months.

Analyses

We used SPSS 15.0 (SPSS, Chicago, IL). First, we conducted chi-square crosstabulations to determine which demographic, Internet use, and psychosocial characteristics were associated with: (1) harassment by known peers, (2) harassment by online-only contacts, and (3) no harassment. Second, we ran a series of logistic regression analyses, controlling for age and high Internet use, to create odds ratios identifying characteristics associated with harassment by known peers or online-only contacts, compared to youth not harassed. Third, we used chi-square crosstabulations to compare characteristics of incidents by known peers to those by online-only contacts. Next we used chi-square tests to compare youth who were distressed by an incident to those who were not. Finally, we used logistic regression to create odds ratios for characteristics significantly related

Table 1
Bivariate comparisons of demographic, Internet use, and psychosocial characteristics of youth harassed by known peers, by online-only contacts and not harassed (n = 1499)

Characteristics	Harassed online by known peer (n = 56)		Harassed by online-only contact (n = 73)		Not harassed online (n = 1,370)
	%	AOR (95% CI)	%	AOR (95% CI)	%
Demographic characteristics					
Teenager (13–17 years old)	91**	n.s.	85	n.s.	76
Female	64	—	52	—	50
College education in household	61	—	55	—	54
Household income >$75,000	32	—	27	—	33
Lives with both biological parents	63	—	60	—	62
White race	87	—	79	—	75
Black race	4	—	12	—	13
Hispanic ethnicity	9	—	5	—	9
Internet use characteristics					
High level of Internet use	50***	1.8 (1.3–2.3)***	38	1.4 (1.01–1.9)*	26
Used instant messaging	95***	1.4 (1.2–1.5)**	86	1.3 (1.1–1.4)**	66
Went to chat rooms	50***	1.6 (1.1–2.1)**	48	1.6 (1.2–2.0)**	28
Kept an online journal/blog	35***	1.9 (1.2–2.8)**	31	1.9 (1.3–2.7)**	15
Talked online with friends	98***	1.25 (1.07–1.28)*	89	n.s.	78
Talked online with unknown people	59***	1.7 (1.3–2.1)***	67	2.1 (1.7–2.4)***	31
Harassed others online	41***	5.2 (3.4–7.2)***	16	2.1 (1.2–3.6)*	7
Had Internet access at					
Home	98	—	90	—	91
School	93	—	90	—	90
Friends' homes	91***	1.3 (1.1–1.4)**	69	n.s.	68
Via cell phone	34***	1.8 (1.1–2.7)*	22	n.s.	15
Psychosocial characteristics					
High parent–child conflict	29***	2.1 (1.3–3.1)**	19	n.s.	13
Sexual or physical abuse, past year	13***	3.8 (1.7–7.9)***	4	n.s.	3
Offline interpersonal victimization	59**	1.6 (1.2–1.9)**	45	n.s.	37
CBCL subscales (borderline or clinical range)					
Aggressive behavior	16**	2.9 (1.5–5.3)**	10	n.s.	5
Rule-breaking behavior	11*	n.s.	12	n.s.	6
Social problems	13*	2.6 (1.2–5.2)*	11	2.1 (1.03–4.1)*	5
Depression	2**	n.s.	11	2.7 (1.3–5.2)**	4

AOR = adjusted odds ratio, CI = confidence interval, n.s. = not significant.

First we conducted chi-square crosstabulations. Then we calculated adjusted odds ratios separately for each variable using logistic regression tests that compared each harassed group to youth not harassed, controlling for age and high Internet use. Odds ratios were then further adjusted to more closely approximate relative risk [15]. Only relationships significant at the bivariate level were included in the logistic regression analysis.

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

to distress. We controlled for sex and high Internet use for youth harassed by known peers and age for those harassed by online-only contacts, based on results of chi-square tests. All odds ratios were adjusted further to more closely approximate relative risk [18].

Results

Nine percent (n = 129) of the 1499 youth respondents had been harassed online in the past year. Of these, 43% (n = 56) were harassed by known peers and 57% (n = 73) by online-only contacts.

Comparisons of personal, Internet use, and psychosocial characteristics

Controlling for age and high Internet use, youth harassed by known peers were more likely than those not harassed to engage in each type of interactive Internet use measured, including instant messaging, chat, online journals and blogs, and talking online with friends and with people not known in person (Table 1). Those harassed by known peers were about five times more likely to have used the Internet to harass someone they were mad at than youth not harassed. They were also more likely to report high conflict with parents, physical or sexual abuse, offline interpersonal victimization, and aggressive behavior and social problems as measured by the CBCL.

Similarly, youth harassed by online-only contacts were more likely to engage in most types of interactive Internet use compared to youth not harassed and controlling for age and high Internet use. They were similar to youth not harassed in terms of talking online to peers but more likely to talk online to people they did not know in person. They were also more likely to score in the clinically significant or

Table 2
Bivariate comparisons of characteristics of online harassment incidents by known peers versus by online only contacts (n = 129)

Characteristics	Harassed online by known peer (n = 56) %	Harassed by online only contact (n = 73) %
Youth was harassed online more than once in the past year	68**	44
Harasser communicated directly with target	41***	82
Harasser posted messages or sent then for others to see	59***	18
Series of incidents involving same harasser	59***	27
More than one harasser	36*	19
Target was with friends or other kids when harassed	37	25
When harassment first happened, youth was		
Using instant messages	64***	34
In an online journal or blog	11	3
Using e-mail	5*	18
In a chatroom	4*	18
Via message board	5	4
In a gaming site	0**	14
Other or don't know	18	14
Harasser sex		
Male	55	47
Female	45***	16
Unknown	n/a	37
Harasser was age 17 or younger	89***	36
Harasser was age 18 or older	9***	33
Harasser age was unknown	2***	31
Relationships with online only contacts		
No previous interaction	n/a	79
Conversed online more than once	n/a	21
Started to feel like friend	n/a	15
Harasser asked youth for picture	11**	33
Offline contact as part of incident	45***	7
Youth disclosed incident	87***	52
Youth was distressed about online harassment	34	41
How situation ended		
Online action (e.g., left site, blocked) or no action	41***	75
Confronted harasser	25*	11
Made up or smoothed over	16*	4
Parent or teacher handled	11**	0
Called police, ISP or other authority	2	7

n/a = not applicable.
We used chi-square crosstabulations.
* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

borderline range for social problems and depression as measured by the CBCL.

Comparison of incident characteristics

Sixty-eight percent of those targeted by known peers and 44% of those targeted by online-only contacts had been harassed online more than once in the past year (Table 2). There were significant differences in a number of incident characteristics, based on whether harassers were known peers or online-only contacts. For example, 59% of incidents by known peers involved messages posted or sent for others to see, compared to 18% by online-only contacts. Also, 59% of known peer incidents involved a series of incidents by the same harasser, compared to 27% of incidents by online-only contacts, and incidents by known peers were somewhat more likely to involve more than one harasser. Known peer incidents were also more likely to be initiated by instant messages. Close to half of known peer harassers (45%) were female, compared to 16% of online-only contacts, although the sex of many online-only contacts was unknown. Although the difference was not statistically significant, it is notable that 37% of youth harassed by known peers and 25% by online-only contacts were with friends or others during the incident. Other differences, such as more known peer harassers being younger than 18 and having offline contact with targets probably reflect the proximity of known peers compared to online-only contacts.

Among targets of online-only contacts, 79% had no previous interaction with their harassers. However, 15% said

Table 3
Characteristics related to distress about harassment by known peers and by online only contacts (n = 129)

Characteristics	Harassed online by known peer (n = 56)			Harassed by online only contact (n = 73)		
	Distressed (n = 19) %	Not distressed (n = 37) %	AOR (95% CI)	Distressed (n = 30) %	Not distressed (n = 43) %	AOR (95% CI)
Demographic characteristics						
Female	79†	57	n.s.	n.s.	n.s.	n.s.
Teenager (13–15)	n.s.	n.s.	—	77†	91	n.s.
High level of Internet use	26**	62	0.4 (0.1–0.8)**	n.s.	n.s.	n.s.
Incident characteristics						
Series of incidents involving same harasser	n.s.	n.s.	—	43**	16	2.8 (1.3–4.4)*
Harassment began via instant messages	47†	73	n.s.	n.s.	n.s.	n.s.
Harasser was age 18 or older	n.s.	n.s.	—	50**	21	2.5 (1.3–3.6)**
Online contact harasser felt like a friend	n/a	n/a	n/a	23†	9	n.s.
Harasser asked youth for picture	21†	5	n.s.	50**	21	2.5 (1.3–3.6)**
Incident included offline harassment	68**	32	n.s.	n.s.	n.s.	n.s.
Internet use characteristics						
Uses instant messaging	84*	100	n.s.	n.s.	n.s.	n.s.
Goes to chatrooms	n.s.	n.s.	—	27**	63	0.4 (0.2–0.8)**
Uses the Internet at friends' homes	n.s.	n.s.	—	50**	81	0.7 (0.3–0.9)*
Used the Internet to harass someone mad at	21*	51	n.s.	n.s.	n.s.	n.s.
Psychosocial characteristics						
Clinically significant or borderline aggressive behavior (CBCL)	n.s.	n.s.	—	17†	5	n.s.

AOR = adjusted odds ratio, CI = confidence interval, n.s. = not significant, n/a = not applicable.
First we conducted chi-square crosstabulations. Then we calculated odds ratios separately for each variable using logistic regression. We controlled for sex and high Internet use for youth harassed by known peers and age for youth harassed by online only contacts, and then further adjusted to correct for overestimation of risk. Only variables with differences significant at $p < .10$ using chi-square analyses are shown.
† $p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

the online contact had started to feel like a friend. Three-quarters of targets of online-only contacts ended the harassment by taking simple online action or no action at all, compared to 41% of youth harassed by known peers. Parents or teachers handled 11% of known peers incidents but none involving online-only contacts. Overall, 87% of known peer incidents were disclosed to others compared to 52% of those involving online-only contacts. Forty-one percent of targets of online-only contacts were distressed by the harassment, compared to 34% of targets of known peers, but this difference was not statistically significant.

Distressing harassment

Youth with high Internet use who were harassed by known peers were less likely to be distressed; no other characteristics predicted distress when high Internet use and sex were controlled for (Table 3).

Among youth harassed by online-only contacts, being a teen (13–17) was somewhat associated with less distress. Controlling for age, youth targeted by online-only contacts were more likely to be distressed when the harassment involved a series of incidents by the same harasser; the harasser was age 18 or older, or asked the youth for a picture. Youth who scored in the clinically significant or borderline range on the CBCL subscale for aggressive behavior were also more likely to exhibit distress. Youth harassed by online-only contacts were less likely to be distressed if they were chatroom users or used the Internet at friends' homes.

How much online harassment could be called bullying?

Although we do not have variables that clearly denote which incidents involve aggressive intent by harassers or imbalance of power, a rough way to estimate the proportion of online harassment that might constitute bullying under the standard definition is to look at the number of incidents youth described as being both part of a series of incidents by the same harasser (indicating repetition) and either distressing (possibly indicating aggression and imbalance of power) or requiring adult intervention (imbalance of power). Twenty-five percent of known peer incidents met these criteria as did 21% of incidents by online-only contacts (not shown in table).

Discussion

Does online harassment constitute bullying?

Certain individual variables suggest that online harassment by known peers may constitute bullying more often than harassment by online-only contacts, defining bullying as requiring aggression, repetition, and power imbalance. More than half of known peer harassers sent or posted messages for others to see, suggesting gossip and rumor

spreading and incidents that would be difficult for targets to terminate. Also, close to half of known peer harassers were female. Because girls who bully tend to use indirect methods [19,20], they may find the Internet particularly suited to such tactics. Other research has also found high proportions of girls responsible for online incidents [10]. In contrast, over 80% of harassment by online-only contacts was limited to direct exchanges between harassers and targets. Close to 60% of known peer incidents were part of a series, meeting the requirement of repetition, whereas most harassment by online-only contacts involved single events. Harassment by known peers was more likely to entail multiple harassers and be resolved with the involvement of a parent or teacher, implying that power imbalances were more common. In addition, 45% of known peer harassers had offline contact with targets, suggesting online incidents that may have been an aspect of offline bullying. Nonetheless, harassment by online-only contacts was not less distressing to targets. A rough estimate of bullying based on measures of repetition and distress found similar rates of possible bullying for youth targeted by known peers and those targeted by online-only contacts.

Online harassment and distress

The majority of online harassment incidents were not distressing to targets. Unfortunately, our data did not yield much information about characteristics associated with distress over online harassment by known peers, once high Internet use was controlled for. Distress over harassment by online-only contacts was associated with a series of incidents, or repetition, and with online-only contacts who were age 18 or older, suggesting a power imbalance based on age in at least some cases. Harassers asking for pictures was also related to distress, suggesting youth may have become uncomfortable with the degree of personal information being sought. In addition, youth who had problems with aggressive behavior were more likely to call harassment by an online-only contact distressing. These youth may have been quicker to take an incident personally or label an online communication as hostile.

Youth who used the Internet to visit chatrooms or used the Internet at friends' homes were less likely to be distressed over harassment by online contacts. Chatroom users may have been more inured to online incivility, and youth who used the Internet at friends' home may have been in social situations that made them feel less threatened.

These findings suggest that the concept of "bullying" or "cyberbullying" may not apply to all online interpersonal offenses. The concept of bullying was largely developed to apply to school situations in which youth had ongoing face-to-face relationships with other youth. The Internet, in contrast to school, is a context where interactions can occur readily with both known peers and complete strangers. Both pose the potential for threatening, intimidating, and distressing interactions, although of somewhat different character. The term "bullying," as it has been defined in the school context, does not appear to apply to much of this online harassment, particularly incidents perpetrated by people youth do not know face-to-face and minor, single incidents by peers that are not distressing to targets. Care should be taken to distinguish between online harassment that does and does not qualify as "bullying."

We do not recommend using the term "bullying" to describe all online interpersonal offenses, because they vary so widely in their characteristics. We suggest using "online harassment," with disclaimers that it does not constitute bullying unless it is part of or related to offline bullying. This would include incidents perpetrated by peers that occur entirely online but arise from school-related events or relationships and have school-related consequences for targets. Clearly, the Internet provides opportunities for the extension of conventional school bullying to new venues. Those who study conventional school bullying need to include online behavior in research to further refine knowledge, prevention, and intervention.

Limitations

The study was not designed to collect data about bullying. Analyses are based on single incidents of online harassment. Data did not allow for analyses of characteristics or assessment of distress over multiple incidents, and we lacked data that would have allowed us to better evaluate cases in which harassment may have constituted bullying. All data come from youth self-reports. Also, power was limited by the small number of cases. Other limitations of the sample have been described elsewhere [1,6].

Implications

A number of strategies may be useful for preventing or mitigating the impact of online harassment. First, the problem needs to be described effectively and in detail so youth, parents, school teachers and administrators, and other authorities can understand it and identify it. Descriptions should not be limited to incidents involving known peers, and definitions should include other related technologies such as text messaging and cell phone photography. Also, effective measures of distress are needed to distinguish minor incidents from those that could have serious negative consequences. Existing antibullying and other prevention programs should include discussions about online harassment, both school-related and not. In addition, codes of conduct that include online behavior need to be created, publicized, and adopted through Internet service providers, schools, clubs and organizations, as well as on Web sites. Internet service providers, schools, and other youth-serving organizations should be encouraged to have strong sanctions against online harassment. Because much bullying and harassment, both off- and online, occurs in

school or arises from related events, School Resource Officers could be an important component in prevention and intervention programs.

Education and prevention messages should be tailored to different age groups, including the recognition that online harassment frequently involves high school students. Younger youth and those with social skills deficits and problems with aggression should be taught coping skills and interaction skills for Internet communication. Because much online harassment involves groups of youth, factors such as group dynamics and bystander issues should be taken into account. Finally, mental health, youth service, and educational professionals should be trained to recognize and respond to online harassment.

Acknowledgments

All of the funds for this research were derived from federal sources, totaling $348,767, through Grant No. 2005-MC-CX-K024 from the U.S. Department of Justice, OJJDP, and Grant No. HSCEOP-05-P-00346 from the U.S. Secret Service, Department of Homeland Security. Points of view or opinions in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice or Department of Homeland Security. Program support was provided by the Verizon Foundation.

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