Comparisons of Bully and Unwanted Sexual Experiences Online and Offline Among a National Sample of Youth

Michele L. Ybarra, Kimberly J. Mitchell and Dorothy L. Espelage Internet Solutions for Kids, Inc, University of Illinois,

1. Introduction

A dramatic increase in Internet use among young people in the past decade (Lenhart, 2009) has contributed to a heightened appreciation for the Internet's potential positive (Lenhart, 2009; Rideout, 2001; Ybarra & Suman, 2008) and negative impacts (Guan & Subrahmanyam, 2009; Juvonen & Gross, 2008; Katzer, Fetchenhauer, & Belschak, 2009; Li, 2006; Mitchell, Finkelhor, & Wolak, 2001, 2007; Raskauskas & Stoltz, 2007; Slonje & Smith, 2008; Smith et al., 2008; Wolak, Mitchell, & Finkelhor, 2006; Ybarra, Diener-West, & Leaf, 2007a; Ybarra, Leaf, & Diener-West, 2004) on the health and development of youth. Internet harassment and bullying victimization have received particular research attention, and are consistently found to be associated with psychosocial problems including depressive symptoms, poor caregiver-child relationships, social and behavior problems, and substance use (Guan & Subrahmanyam, 2009; Juvonen & Gross, 2008; Katzer et al., 2009; Li, 2006; Raskauskas & Stoltz, 2007; Slonje & Smith, 2008; Smith et al., 2008; Wolak et al., 2006; Ybarra et al., 2007a). Unwanted online sexual solicitation, defined as being asked to talk about sex, provide personal sexual information, or do something sexual when the youth does not want to when using the Internet, is another area of adolescent health concern. Online sexual solicitation has been associated with psychosocial challenges including depressive symptomatology (Mitchell et al., 2001, 2007; Ybarra et al., 2004).

Certainly, the Internet is but one environment in which youth must navigate. Victimization has been noted particularly at school, where youth spend a great deal of their time. Studies consistently report that victims of school bullying are significantly more likely to experience negative health and social consequences than non-bullied youth, including health problems, emotional and school adjustment problems, and poorer peer relationships (Due et al., 2005; Hawker & Boulton, 2000; Nansel et al., 2004; Sourander, Helstela, Helenius, & Piha, 2000). Unwanted sexual experiences in the schools is similarly associated with psychosocial problems, including alcohol use (Fineran & Bolen, 2006).

Many studies have reported relative rates of bullying online and offline (Juvonen & Gross, 2008; Katzer et al., 2009; Li, 2006; Raskauskas & Stoltz, 2007; Slonje & Smith, 2008; Smith et al., 2008; Wang, Iannotti, & Nansel, 2009); most report bullying more commonly occurring in

the schools. These studies use varying definitions for online and offline bullying and/or focus on regional or convenience samples. Furthermore, rates in non-school environments are not reported. Little has been reported in terms of bullying perpetration across environments also. Of note, Wang and colleagues (Wang et al., 2009) report that among 6-10th graders nationally, 8% bully others online, 27% bully others socially, 37% bully verbally, and 13% bully others physically while at school. Online bullying is treated as a different *type* of bullying however; such that, for example, social bullying that occurs online is imperfectly measured. Importantly too, data are lacking about how the bullying *experience* may differ online versus offline. No data have been presented to compare relative rates of distress for bullying that occurs online versus offline. It also has been posited that a unique aspect of online bullying is the potential for anonymity; this assumes that all victims know their offline bullies. No research has examined however, whether this is a valid assumption.

Even less has been reported about unwanted sexual experiences online and offline. Ybarra and colleagues (Ybarra, Espelage, & Mitchell, 2007b) report overlaps in victimization for harassment and unwanted sexual experiences online; they do not report however, the relative rates of unwanted sexual experiences online and offline. To our knowledge, no other studies have reported relative rates of online and offline unwanted sexual solicitation in the general population of youth.

To address these gaps in the literature, we report data from the Growing up with Media study, a national survey of over 1,000 youth. Findings have implications for public policy initiatives as well as school and other community-based intervention efforts.

2. Methods

The Growing up with Media study is a longitudinal survey examining the associations between exposure to violent media - particularly new media (e.g., the Internet) - and violent behavior. Wave 1 data were collected August-September, 2006 with 1,588 youth-caregiver pairs; data were collected again November, 2007 - January 10, 2008 [Wave 2, (n=1,206)] and August - November, 2008 [Wave 3, (n=1,159)]. The survey protocol was reviewed and approved by the Centers for Disease Control and Prevention Institutional Review Board (IRB).

The sample was obtained from the Harris Poll Online (HPOL) opt-in panel (Harris Interactive, 2006), which is comparable to random telephone samples of adult populations once appropriate sample weights are applied (Berrens, Bohara, Jenkins-Smith, Silva, & Weimer, 2003; Berrens, Bohara, Jenkins-Smith, Silva, & Weimer, 2004; Schonlau et al., 2004; Taylor, Bremer, Overmeyer, Siegel, & Terhanian, 2001). Recruitment was balanced on youth age and sex. Participants were recruited through an email contact with randomly identified adult HPOL members who had previously indicated a child lived in the household. Adult respondents (one per household) were required to be equally or more knowledgeable than other adults in the home about the youth's media use, and to provide consent for their participation and permission for their child's participation. Youth participants were required to be 10-15 years old, read English, live in the household at least 50% of the time, have used the Internet in the last 6 months, and provide assent to participate in research.

On average, adult surveys lasted 5-minutes and youth surveys 21 minutes. Youth received a \$20 gift certificate and caregivers a \$15 check for their participation at Waves 1 and 2; and \$25 and \$20, respectively at Wave 3. The surveys were administered by Harris Interactive.

2.1 Sample

Although parallel questions of bullying online and offline were added at Wave 2, it was not until Wave 3 that measures of perpetration and distress were added. To fully answer the research questions posed, the current analyses are restricted to Wave 3. The baseline survey response rate, 26%, was within the expected range of similar online surveys (Cook, Heath, & Thompson, 2000; Kaplowitz, Hadlock, & Levine, 2004).

To maximize data, respondents were invited to take part in the Wave 2 and Wave 3 surveys irrespective of their participation at previous Waves. Response rates were 76% and 73% of baseline participants at Wave 2 and Wave 3, respectively. Survey participants in subsequent Waves were similar to participants in Wave 1 and also to the national population (See table 1 below). For example, using weighted data, 49% of the sample was male at Wave 3, and 49% was male at Wave 1. Seventy-three percent identified as White race at Wave 3 and 71% at Wave 1. Twenty-five percent lived in a household with an annual income of \$35,000 or less at Wave 3 versus 26% at Wave 1.

Youth and Household	Wave 1	Wave 2	Wave 3
Demographic Characteristics	(n=1,577)	(n=1,189)	(n=1,149)
	% (n)	% (n)	% (n)
Sex			
Female	51.0 (785)	50.3 (589)	50.8 (568)
Male	49.0 (792)	49.7 (600)	49.2 (581)
Age (mean)	12.6	13.7	14.5
Race			
White	71.3 (1155)	73.9 (900)	72.5 (855)
Black or African American	13.6 (213)	12.5 (140)	13.6 (145)
Mixed racial background	8.6 (113)	7.5 (80)	8.2 (84)
All other	6.5 (96)	6.1 (69)	5.7 (65)
Hispanic ethnicity	18.1 (206)	16.7 (144)	16.6 (137)
Annual household income			
<\$35,000	25.7 (399)	24.3 (251)	24.8 (241)
\$35,000 - \$74,999	39.7 (685)	40.1 (525)	38.6 (490)
\$75,000+	34.6 (493)	35.6 (413)	36.7 (418)

Table 1. A comparison of demographic charactaeristics of respondents across waves

2.2 Measures

Respondents were asked about bullying *victimization* as well as *perpetration* using Olweus' definition of bullying (Olweus, 1994): "We say a young person is being bullied or harassed when someone else or a group of people **repeatedly** hits, kicks, threatens, or says nasty or unpleasant things to them. Another example is when no one ever talks to them. These things

can happen at school, online, or other places young people hang out. It is **not** bullying when two young people of about the **same strength** fight or tease each other. How often has this happened to you in the following environments?): 1) at school, 2) on the Internet, 3) on cell phones through text messaging, 4) on the way to and from school, and 5) somewhere else. For each environment, response options were: every day / almost every day; once or twice a week; once or twice a month; less often than once a month; never; and decline to answer.

Youth who reported bullying victimization in at least one environment were asked two follow up questions. First, these youth were asked to indicate how they felt when they were bullied in each environment, when thinking about the most serious incident. Responses were captured on a 5-point scale: not at all upset; somewhat upset; upset; very upset; extremely upset; and decline to answer. Second, youth were asked whether they knew their bully: "By "know" we mean you can recognize the person or you know who they are". Response options were: yes, no, not sure, and decline to answer.

Unwanted sexual experiences also were measured using parallel items for experiences when online, and experiences when at school. Note that other environments, including on the way to and from school, and 'somewhere else' were not queried. Text messaging-based experiences were queried, but using different measures and therefore are not included in the current analyses. Items were based upon those included in and referred to as "unwanted sexual solicitation" in the Youth Internet Safety Surveys (Finkelhor, Mitchell, & Wolak, 2000; Wolak et al., 2006). We choose to call these experiences "unwanted sexual experiences" to avoid connotation that these youth were necessarily solicited for sex. Youth endorsing at least one of the following questions were classified as having an unwanted sexual experience: 1) Someone tried to get me to talk about sex when I did not want to; 2) Someone asked me for sexual information about myself when I did not want to tell the person, e.g., really personal questions, like what my body looks like or sexual things I have done; 3) Someone asked me to do something sexual that I did not want to do. Response options were: everyday/almost every day; once or twice a week; once or twice a month; a few times a year; less than a few times a year; never; and decline to answer. Perpetration was asked solely for the online environment. Similarly, distress was only queried for youth reporting victimization online. Given that the focus of the current paper is comparisons across environments, these data are not reported.

2.3 Data cleaning and statistical analyses

Data cleaning indicated that 18 youth were likely 9 years of age, and 12 youth were 16 years of age at Wave 1. To maximize the amount of data; and because caregivers did not know the eligibility criteria (and, therefore, were unlikely to have misreported their child's age purposefully), these youth are included in the analyses.

Data were weighted statistically to reflect the population of adults with children aged 10-15 years old in the U.S. in 2006 (when the sample was first recruited) according to adult age, sex, race/ethnicity, region, education, household income, and child age and sex. (Bureau of Labor Statistics & Bureau of the Census, 2006) Adults were the weighting target as they were the ones first recruited into the survey. Survey sampling weights also adjust for adult respondents' self-selection into the HPOL (Berrens et al., 2003; Berrens et al., 2004; Schonlau et al., 2004; Taylor et al., 2001) as well as any differential follow-up of youth participants over time.

Missing data and "refused" responses were imputed using best-set regression (StataCorp, 2008). To reduce the likelihood of imputing truly non-responsive answers, participants were required to have valid data for at least 85% of the survey questions asked of all youth. Eleven respondents did not meet this criterion and were dropped from the Wave 1 sample; 17 were dropped from the Wave 2 and 10 from the Wave 3 samples.

Statistical comparisons across environments cannot be made because categories are not exclusive; youth can be represented in multiple categories.

3. Results

3.1 One-year prevalence rates across environments

3.1.1 Bully victimization

	Environment				
Frequency	School (n=1,149) % (n)	Internet (n=1,149) % (n)	Cell phone text messaging ^a (n=806) % (n)	To and From school (n=1,149) % (n)	Somewhere else (n=1,149) % (n)
Every day / almost every day	1.3 (15)	0.3 (4)	0.4 (1)	0.9 (3)	0.3 (3)
Once or twice a week	4.0 (43)	0.3 (5)	0.5 (6)	1.7 (16)	1.5 (13)
Once or twice a month	3.2 (46)	1.9 (22)	1.7 (13)	1.1 (15)	1.9 (22)
Less often	22.1 (254)	12.3 (150)	9.5 (73)	7.8 (88)	10.8 (114)
Never	69.4 (791)	85.3 (968)	88.2 (713)	89.2 (1027)	85.6 (997)

^a Restricted to youth who sent and received text messages at least once in the past year (70%, n=806)

Table 2. A comparison of 1-year bullying victimization rates across environments

Overall, 40% of youth reported some bully victimization in the past year. Rates across environments are shown in Table 2. An examination of the school-online overlap suggests that most of these youth were bullied at school exclusively: 59% were bullied only at school; 13% were bullied only online; and 28% were bullied both at school and online

3.1.2 Bully perpetration

			Environment		
Frequency	School (n=1,149) % (n)	Internet (n=1,149) % (n)	Cell phone text messaging ^a (n=806) % (n)	To and From school (n=1,149) % (n)	Somewhere else (n=1,149) % (n)
Every day / almost every day	0.3 (5)	0.06 (2)	0.3 (2)	0.03 (1)	0.4 (3)
Once or twice a week	1.3 (13)	0.6 (7)	0.9 (6)	0.9 (8)	1.2 (11)
Once or twice a month	1.7 (22)	0.8 (15)	1.0 (11)	0.3 (8)	1.2 (15)
Less often	10.4 (107)	4.7 (47)	3.4 (25)	3.0 (34)	3.4 (44)
Never	86.4 (1002)	93.7 (1078)	94.3 (762)	95.8 (1098)	93.8 (1076)

^a Restricted to youth who sent and received text messages at least once in the past year (70%, n=806)

Table 3. A comparison of 1-year bullying perpetration rates across environments

Eighteen percent of youth reported being bullies in the past year. Table 3 shows bullying rates by environment. The school-online overlap was similar to that noted for victims: among youth who bullied in either place, 59% bullied only at school, 10% bullied only online, and 31% bullied both online and at school.

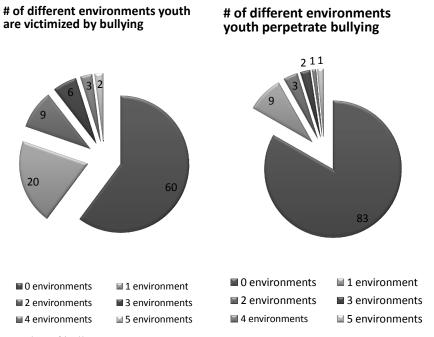


Fig. 1. Overlap of bullying experiences across environments

As shown in the Figure, the majority of youth were not victims (60%) or perpetrators (82%) of bullying in any environment. For those who were involved in bullying, the most common experience was victimization (20%) or perpetration (9%) in one environment. Fewer reported being victimized (9%) or perpetrating (4%) across two environments. Very few reported being bullied or bullying others in four or all five of the environments queried.

3.1.3 Unwanted sexual experiences

_	Environment		
Frequency	School	Internet	
	(n=1,149)	(n=1,149)	
	% (n)	% (n)	
Every day / almost every day	0.2 (5)	0.4(7)	
Once or twice a week	1.7 (14)	1.3 (9)	
Once or twice a month	2.1 (17)	2.9 (29)	
Less often	13.7 (169)	13.0 (154)	
Never	82.3 (944)	82.4 (950)	

Table 4. 1-year unwanted sexual experiences victimization rates across environments

Almost one in four youth (25%) reported being victims of unwanted sexual experiences in the past year. As show in Table 4, 18% of youth reported unwanted sexual experiences at school, and 18% online. Among victims, 29% reported being victimized at school only, 29% online only, and 42% both at school and online.

3.2 The bully victimization "experience" across environments

3.2.1 Distress

Youth who reported being bullied were asked to indicate how they felt about the most serious incident in each environment they were bullied. As shown in Table 5, more youth reported being upset by their most serious bullying incident at school (37.5%) than any other environment.

Environment	Very / extremely	Not sure / Do
	upset by the most	not "know" the
	serious incident	bully
	% (n)	% (n)
School (n=358)	37.5 (128)	12.0 (44)
Internet (n=181)	15.4 (34)	45.8 (84)
Cell phone text messaging (n=95)	32.9 (28)	29.0 (23)
On the way to and from school	38.8 (46)	22.4 (25)
(n=122)		
Somewhere else (n=152)	36.7 (56)	27.2 (46)

Table 5. The bully victimization expereince: Victim distress and knowing one's perpetrator (n=1,149)

3.2.2 Knowing one's perpetrator

When asked to indicate if they "knew" the bully (i.e., the respondent could recognize the bully or knew who they were), almost half (46%) of youth bullied online said they were not sure or did not know who the bully was (see Table 5). About one in four youth said they were unsure or did not know their bully via text messaging (29%) and one in three said they were unsure or did not know their bully on the way to and from school (22%). Slightly more than one in ten youth bullied at school (12%) said they did not know or were unsure about the bully's identity.

4. Discussion

Based upon data from 12-17 year-olds surveyed nationally, involvement in bullying and unwanted sexual experiences appears common: 40% report being bullied, 18% report bullying, and 25% report being victims of unwanted sexual experiences in at least one environment that they navigate. Although it is difficult to compare these data with previous studies that have focused more specifically on experiences occurring either at school or online, it is fair to say that our findings provide further evidence that involvement in youth aggression, either as a perpetrator or as a victim, is widespread.

4.1 School bullying is more common than online bullying

Bullying is reported more frequently at school than online: 31% of youth report being bullied at school compared to 15% online; bully perpetration is reported by 14% of youth at school compared to 6% who bully others online. Moreover, an examination of the schoolonline overlap suggests that most youth are bullied or bully at school exclusively. Youth spend more hours in close immediate proximity with peers at school then they do at home or in their neighborhoods in the evening. Interactions in school are inherently social and the opportunities for conflict are plentiful (e.g., hallways, lunch, recess). It is not clear that online environments provide the same amount of time to bully others. Also too, school bullying is often perpetrated by individuals and groups of individuals with an audience present (O'Connell, Pepler, & Craig, 1999; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996) in order to promote the bully's popularity or maintain his or her high social status. The audience reinforces the behavior, thereby increasing the likelihood that it will continue. Although there is an audience online (e.g., Facebook), it is not clear what role this audience plays or how strongly their reinforcement is as it is being mediated through a computer screen. Perhaps part of the reason rates are higher at school is because the social reinforcement is stronger there.

4.2 School bullying is more distressing than online bullying

Online bullying may be different or more distressing than offline bullying because of the ability to hide one's identity, and the rapidity and breadth with which the information is disseminated. Our data do not support this hypothesis, however. Twice as many youth bullied at school (38%) indicate that they feel very or extremely upset by the most serious incident compared to youth bullied online (15%). Moreover, while many more youth (46%) report not knowing their bully online compared to school, 12% report they do not know their bully at school. It seems that the differential power inherent in keeping one's identity secret is more commonly utilized online, but it is possible offline as well (e.g., rumors spread around school).

4.3 Bullying happens other places as well

Importantly, 11% of youth report being bullied on the way to and from school, and 14% "somewhere else"; 4% and 6% report bullying perpetration in these respective environments. This serves as a useful reminder that the online/offline discussion does not implicitly mean online/school. Young people have to safely navigate a multitude of environments each day. Our challenge as researchers is to understand how the experiences of youth are similar and different by environment so that our public policy initiatives and interventions can be general when appropriate and environment-specific when need be.

4.4 Few youth have a never-ending bullying experience

Another concern some have is that technology has created a world in which victims cannot hide from bullies. This may be the case for some youth, but it does not appear to be the common experience. Most youth are not involved in bullying at all. Among victimized youth, the most common victimization experience is being victimized in one versus multiple

environments, with school being the one environment most often reported. This suggests that for the majority of youth who are involved in bullying, it is not necessarily something that follows them from the time they wake to the time they go to sleep. Nonetheless, there is a very concerning 5% of youth who report being bullied and 2% who report bullying others in four or all five of the environments we queried. Certainly, for these youth, bullying is an experience that likely seems inescapable. Given that they are bullied in multiple environments, this may mean that there are more opportunities to reach them with support and other intervention efforts. It is essential to take steps to identify and target this group of kids.

4.5 Unwanted sexual experiences happen at school and online with equal frequency

Certainly, unwanted sexual encounters happening online have received the majority of academic research attention (Mitchell et al., 2001, 2007; Ybarra et al., 2004). A study conducted in 2000 among 2064 8-12th graders attending public school (American Association of University Women Educational Foundation, 2001) suggests that eight in ten students experience sexual harassment at school sometime in their lives. Rates of unwanted sexual experiences in the past year in the current study are the same at school (18%) and online (18%). Efforts to recognize and reduce unwanted sexual experiences in the schools need to receive just as much attention as those focused online.

While with good intention, recent public policy efforts to regulate social networking sites to reduce the risk of unwanted sexual encounters for adolescents (Berkman Center for Internet & Society at Harvard University, 2008) may not reach youth who are most vulnerable. Unlike bullying, youth who are victims of unwanted sexual experiences are more likely to report being targeted both online and at school (42%) compared to youth targeted at school only (29%) or online only (29%). Future research should focus on these dually-involved youth to better understand who they are and what researchers and other professionals working with adolescents might do to reduce their vulnerability online as well as offline.

4.6 Study limitations and strengths

This paper is the first to report rates of bullying involvement and unwanted sexual experiences online and offline, in school and out of school, using parallel measures among youth in a national US sample. It also is the first to report relative rates of distress and the frequency of "knowing" the perpetrator among bully victims. It is not however, without limitation. The measures for unwanted sexual experiences are less comprehensive than those for bullying. It is possible that the general prevalence rate for unwanted sexual experiences would be higher if other environments (e.g., cell phone text messaging) were queried. It also is possible that caregivers monitored their children while they were completing the survey. This may have led to under-reporting, although comparisons across environments should still hold as there is little reason to believe youth would be more willing to report bullying at school versus online, for example. The sample is based upon English-speaking households. Findings are not generalizable to households that do not read English.

4.7 Future research implications

Environments were queried with the assumption that they were distinct. With the convergence of technology, it is possible now for youth to be bullied on their Facebook profiles, which they could access on their web-capable cell phones during a break at school. In this scenario, youth could potentially click on all three 'environments'. Future research should focus on the conundrum of whether, and if so, how to disentangle these converging environments. This would improve our ability to compare prevalence rates of bullying across the environments in which young people live in order to better target scarce prevention dollars more effectively. It may be however that the "online" "offline" lines have so blurred that the question will quickly become 'have you been bullied', without respect to 'where'. The future challenge for researchers will be to determine when technology is an important characteristic to measure and when it is not.

4.8 'Real world' implications

With youth more likely to be involved in bullying as a victim or perpetrator at school versus online, programs need to continue to prevent and intervene on bullying behavior within schools. Certainly, schools are appropriately working to create protocols that address cyberaggression and harassment. These prevention efforts should not replace programs that address face-to-face bullying, however; instead, they should be viewed as adjuncts to existing programming. Bullying experiences online could be incorporated into bully prevention programs by simply defining bullying online as bullying which is communicated through the online context.

The relative frequency of sexual harassment both at school and online speaks to the need for prevention programs at the school level. In contrast to the vigilance paid to bullying, sexual harassment is not a commonly discussed adolescent behavior. As noted above, this needs to change.

5. Conclusion

Data from 12-17 year olds nationally suggest that youth are more likely to be involved in bullying at school compared to online, on the way to and from school, and all other environments youth must navigate each day. They are as likely to be a victim of unwanted sexual experiences at school as online. Among bullied youth, 38% were very or extremely upset by their most serious bullying experience at school compared to 15% online. These data do not support a hypothesis that the Internet is introducing a more dangerous environment for youth, nor do they support the supposition that online victimization experiences are more distressing overall.

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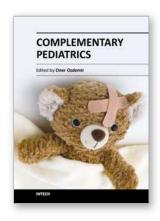
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