Internet Bullying

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KEYWORDS

- Internet • Cyberbullying • Aggression • Online risks • Media violence

KEY POINTS

- The era of new technology and its influence on health-related issues for children and adolescents are firmly confronting us and changing almost daily.
- These new technologies allow not only for the creation of aggression, but the ability to actually be aggressive against another, in what has been termed cyberbullying.
- The effects of being a victim of cyberbullying are often the same for youth who are bullied in person, including, for example, a drop in grades, lower self-esteem, or depression.
- In terms of solutions, the context in which online victimization occurs needs to be considered, and it is suggested that researchers examine online-related outcomes for existing evidence-based violence prevention programs.

Over the last few years, the American Academy of Pediatrics has released several Policy Statements on concerns about media violence,[1] children's advertising,[2] sexuality,[3] and other media-related health issues. The lead article in this issue by Strasburger and colleagues reviews the substantial literature on the impact of the mass media on children's and adolescents' health and development. These issues are certainly not new, but with the rapidly changing technology environment, there is an assumption that the risks to children and adolescents could be more problematic than were once expected. The question of what role new technology plays in the media's influence is now a subject of both review and discussion, particularly regarding health risks and intervention.[4,5]

The many articles in this issue address various aspects of this research. This article examines just one of these concerns, cyberbullying or Internet harassment, and considers how in a relatively short period of time a new form of acting aggressively has become part of daily conversation. In addressing this somewhat recent form of interpersonal aggression, the author takes a brief look at online usage and the theoretical mechanisms that might make Internet access more problematic in terms of risks, compared with more traditional media such as television and film. One of these risks, known today as cyberbullying (**Fig. 1**), is scrutinized in detail.

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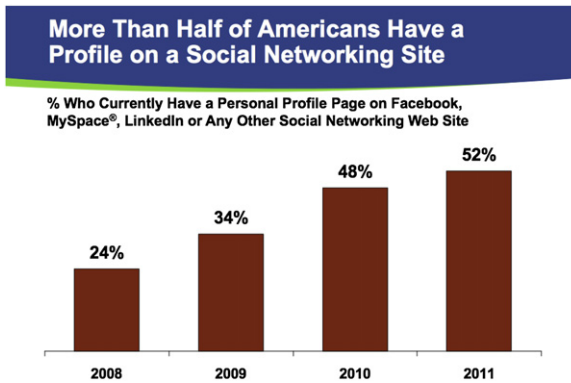
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Fig. 1. Cyberbullying cartoon. (Copyright © Cathy Wilcox; reprinted with permission.)

IS ANYONE ONLINE?

The answer to this question is a simple yes. Going back to the 1960s our media platforms were television, film, radio, and the press. Eventually cable and video games were added, and concerns about these new technologies drew the attention of researchers. In looking at today's media platforms, children and adolescents now have access to the following: movies, print, radio, television, cable television, home video game consoles, portable music players, DVDs, home computers, portable handheld video game systems, Internet, cell phones, MP3 players, DVRs, electronic interactive toys, Internet-connected smart phones, tablet computers.[6] Furthermore, those few television stations of the 1960s now number in the thousands. Does this change the impact? In many ways the answer is yes.

The first question one can ask is whether these new media platforms are being used by today's youth. The answer is a definite affirmative. In their ongoing analysis of teen Internet use, the Pew Foundation[7] notes that in the last decade online use has gone from 70% to 95%, home broadband from 8% to 73%, and cell-phone use from 30% to 75% among teens (with 83% among 17-year-olds). In the last 3 years alone, smartphone use has tripled. Wireless connectivity, making the use of these new technologies easier and faster, has also shown substantial increases during this time. In its most recent study of media use, the Kaiser Foundation[8] found that Internet use among 8- to 18-year-olds has gone from 47% to 84% in the past decade, with over one-third having such access in their bedrooms. Social network sites were basically unheard of 7 years ago, yet today more than half of all Americans use a site such as Facebook (**Fig. 2**).[9]

The Kaiser study also indicated that the amount of time viewing television content had increased over the last decade, but this increase is accounted for primarily by the viewing of such programming over the Internet and mobile devices. Adolescents now spend more than 10 hours a day with some form of media. Perhaps as interesting is the Pew finding that teens actually spend more time contacting their friends via texting (54%) than through face-to-face contact (33%).[7] One should note that such findings are not restricted to the culture of American youth, being quite similar in other countries.[10,11]

More Than Half of Americans Have a Profile on a Social Networking Site

% Who Currently Have a Personal Profile Page on Facebook, MySpace®, LinkedIn or Any Other Social Networking Web Site

Year	Percentage
2008	24%
2009	34%
2010	48%
2011	52%

Fig. 2. Percentage of Americans who have a profile on a social networking site. (Copyright © Arbitron; reprinted with permission.)

Unlike traditional media such as television, the Internet and these new technologies (eg, mobile devices) give children and adolescents access to just about any form of content they can find. From the perspective of a child or adolescent it does not take much effort to have access to any form of violence, advertising, or sexual behavior that may be considered risky with regard to health.[4,12–15] (See article by Strasburger and colleagues elsewhere in this issue for further exploration of this topic.) Furthermore, this can be done in the privacy of their own room with little supervision from their parents.

WHAT MECHANISMS MIGHT ACCOUNT FOR NEWER TECHNOLOGY DIFFERING FROM TRADITIONAL MEDIA?

Might these newer technologies have differing effects to those of traditional media? Malamuth and colleagues[14] have provided a theoretical viewpoint, which in the author's opinion puts the role of these newer technologies in perspective relative to more traditional media such as television. It also begins to give some insight into why cyberbullying has become more of a potential risk and a focus of attention. According to these investigators, the Internet provides motivational, disinhibitory, and opportunity aspects that make it somewhat different to traditional media in terms of its potential risk impact.

In terms of motivation the Internet is ubiquitous, in that it is always on and can easily be accessed, thus leading to high levels of exposure. There is little parental supervision, and media use today is essentially round-the-clock. The increase of media in the bedroom and the portability of new technologies (eg, smartphones) makes access almost universal. In the world of new technology there is no "family-viewing hour." Because online activities are often more interactive and engaging, users have the ability to increase their learning of both positive and negative attitudes and behaviors.

The disinhibitory aspect implies that the content is often unregulated, which is true given its global reach. Governmental constraints or filters are often short lived, given ever-expanding technological advances to get around these constraints. Studies suggest that extreme forms of violent or sexual content are more prevalent on the Internet than in other popular media.[4,15] Given that participation is private and anonymous, it allows for the searching of materials a child or adolescent would normally not do with traditional media. Anonymity has a strong influence on reducing inhibitions. Finally, online media exposure is much more difficult for parents to monitor than is media exposure in traditional venues.

Opportunity aspects play a more important role in the area of cyberbullying and child sexual exploitation. Potential victims are readily available, and the identity of the aggressor is often unknown. Often aggressors can disguise themselves, as is the case with pedophiles.

THE INTERNET AS A MEDIUM FOR VIOLENCE

Given these changes in technology, how does having access to the Internet affect a child's or adolescents exposure to violence, and in particular for this article, cyberbullying? **Fig. 3** shows how this might be conceptualized, in terms of both the Internet generally and the use of new technologies such as mobile phones, and the place of cyberbullying in this conceptualization.

The Internet, and all the platforms and devices through which it can be accessed, allows the individual to view traditional television/film and video games through live streaming or downloads. For the child or adolescent, access to what might be considered restricted materials (adult rated) is much easier via both legal and "illegal" outlets. The article by Strasburger and colleagues in this issue examines the effects of media violence in both traditional television/film and video games. It is beyond question that newer technologies have not only expanded the realm of materials but also the sources for viewing.[6]

As already noted, the motivation and disinhibitions once relegated to traditional media have been substantially changed. As the Kaiser survey found, television content is now part of a multitude of mobile devices and is more readily available.[8] There are several theoretical reasons to expect even stronger effects from exposure to violence with new technologies. The ability for interaction, rehearsal, repetitiveness, privacy, and other mechanisms all suggest that effects would be enhanced.[12]

The Internet and its varying Web sites offer another dimension. Web sites offer not only the prospect of viewing more severe violence (eg, real decapitations and executions) but also access to hate and terrorist groups. Some online archives provide instructions for making bombs or other weapons. In an extensive survey of European
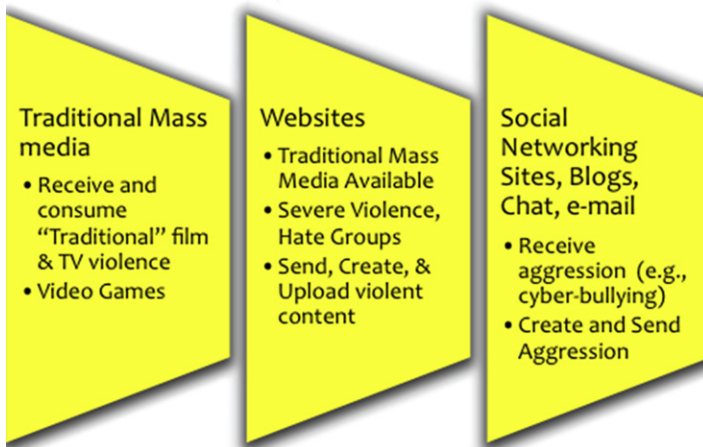
Fig. 3. The Internet, new technology, and mass media violence. (*Reprinted from* Donnerstein E. The media and aggression: from TV to the Internet. In: Forgas J, Kruglanski A, Williams K, editors. The psychology of social conflict and aggression. New York: Psychology Press; 2011. p. 275. Copyright © Psychology Press; with permission.)

countries, the EU Kids Online 2011 project[16] found that seeing graphic violent or hateful content was experienced by approximately one-third of teenagers, making it one of the higher risk concerns.

Not only can adolescents view violence on the Internet but they can also create and upload violent materials. The viewer is no longer a passive participant but now becomes the creator of violent images. Users furthermore have the ability to place that material across the globe instantaneously. Finally, Web sites, and in particular social networking sites, blogs, chat rooms, and e-mail, allow not only for the creation of aggression, but also the ability to actually aggress against another, in what has been termed cyberbullying. This aspect of the Internet and new technology is new and of increasing concern.

CYBERBULLYING

One of the issues over the years that has become of paramount concern is the use of the Internet in terms of aggressing or harassing others. This behavior is referred to as cyberbullying, which is an umbrella term related to constructs such as online bullying, electronic aggression, and Internet harassment. Cyberbullying can be defined as "any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others."[17] In their Policy Statement on violence prevention, the American Academy of Pediatrics referred to Cyberbullying as follows:

> The emergence of portable technologies, such as cellular telephones, digital cameras, and personal digital assistants and ready accessibility to social networking Internet sites has led to the advent of technology-assisted bullying behavior—a phenomenon known as "cyberbullying."[18]

There have been numerous discussions of the types of behaviors that constitute Cyberbullying. The following list involves behaviors that most agree are relevant:

1. Sending unsolicited and/or threatening e-mail
2. Spreading rumors about someone
3. Making inflammatory comments about another person in public discussion areas
4. Impersonating the victim online by sending messages that cause others to respond negatively to this individual
5. Harassing the victim during a live chat or leaving abusive messages on Web pages about the victim
6. Encouraging others to send the victim unsolicited and/or threatening e-mail
7. Leaving abusive messages on Web site guest books
8. Sending the victim pornography or other knowingly offensive graphic material.

Surveys in the United States, Europe, and Australia have indicated that somewhere between 10% and 35% of teens report being bullied online.[12] More interesting is the finding that between 10% and 20% actually admit to bullying others. In terms of gender differences there are very few, as girls are just as likely as males to be involved in cyberbullying behavior.[4] In fact, in their 10-year study of youth victimization, Jones and colleagues[19] found that while sexual solicitations and unwanted exposure to pornography had decreased, the perpetration of online harassment had increased over the 10-year period, with girls accounting for much of this increase. Also of interest in this study is the increased use of victimization via text messaging (**Fig. 4**). One should note that school is still by far the most common place where youth report being bullied.[12] While Internet bullying rates remain lower than traditional bullying, in the most recent study from the European Union,[16] being bullied online is the Internet
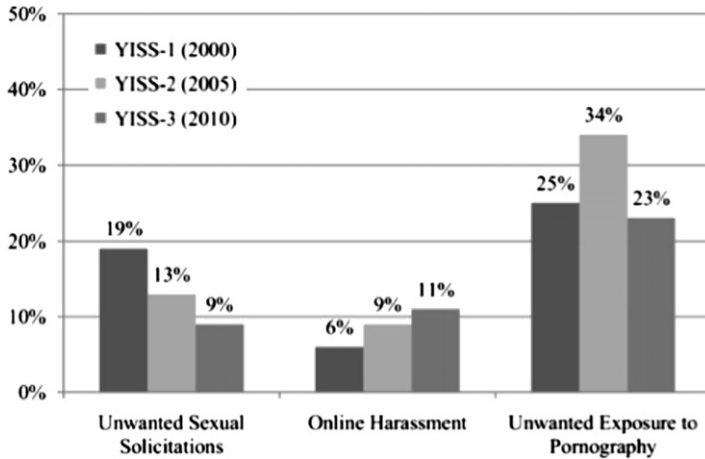
Fig. 4. Trends in unwanted experiences on the Internet for youth: YISS-1 (2000), YISS-2 (2005), and YISS-3 (2010). (*Reprinted from* Jones LM, Mitchell KJ, Finkelhor D. Trends in youth Internet victimization: findings from three youth Internet safety surveys 2000–2010. J Adolesc Health 2011;50:182. Copyright © Elsevier; with permission.)

risk that upsets youth the most. Online victims also reported elevated rates of trauma symptomatology, delinquency, and life adversity.[20]

Research on the occurrence of cyberbullying has also revealed some other interesting findings:

1. 26% have been harassed through their cell phone by voice calls or text messages[7]
2. Social network users are also more likely to report online harassment[21]
3. 34% of teens indicate that they are distressed by online harassment, and those teens who are "heavy" Internet users report more distress[22]

One of the interesting aspects of this type of harassment is the use of slurs and derogatory remarks against another. The use of gay slurs, the "N" word, or other derogatory comments seems to be all too common. Even so, one recent youth survey found that these types of remarks are often not seen as harmful by perpetrators. In this study[23] it was fond that:

1. 71% report people are more likely to use slurs online or in text messages than in person, and only about half say they are likely to ask someone using such language online to stop
2. 51% of those surveyed say they see people being mean to others on social networking sites such as Facebook and MySpace
3. 57% say "trying to be funny" is a big reason people use discriminatory language online.

Not unexpectedly, those who are the recipients of these slurs find them hurtful and harassing.

One question to be asked is why use online technology to bully someone, rather than some form of face-to-face encounter? Tokunaga[17] has offered several suggestions as to why individuals might engage in cyberbullying rather than with traditional forms of bullying, and these fit with the theoretical mechanisms of motivation, disinhibition, and opportunity discussed earlier.

First, there is anonymity offered through electronic media. The importance of anonymity in reducing inhibitions plays a significant role in many forms of aggression, and certainly cyberbullying is no exception. The process of not directly seeing one's victim and not readily being identified can intensify the motivations to harass. Second, it is an opportunistic offense, because the resulting harm can occur without any actual physical interaction. It can take place at any time of day or night from any location. Third, there is for the most part a lack of supervision or observance by others, and the act can require little if any planning. Being an anonymous, disguised perpetrator makes the threat of being caught less likely. Finally, there is accessibility; victims can be reached through several electronic devices such as cellular phones, e-mail, and instant messaging, around the clock and around the globe. As noted earlier, the Internet is ubiquitous.

EFFECTS OF CYBERBULLYING

The effects of being a victim of cyberbullying are often the same for youth who are bullied in person, which includes such consequences as a drop in grades, lower self-esteem, or depression.[24] Internet bullying shares common predictors with verbal and, to some extent, physical bullying. Recent research suggests that the effects of depression deriving from cyberbullying in adolescents might even be stronger (**Fig. 5**).[25] This research reveals that:

1. Youth who were frequently involved with bullying behaviors, regardless of the type of bullying involved, reported higher depression scores than did youth only occasionally involved with such behaviors.
2. Cyber victims reported higher depression than bullies or bully-victims, which was not found in any other form of bullying.
3. Cyber victims may be more likely to feel isolated, dehumanized, or helpless at the time of the attack.
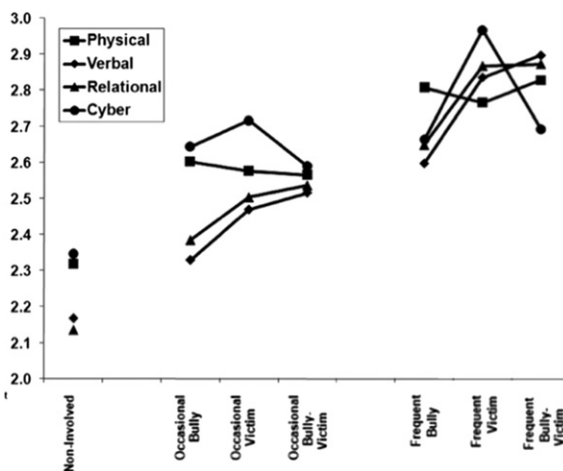
Fig. 5. Adjusted means of depression comparing bullies, victims, and bully-victims within occasionally involved and frequently involved groups. (*Reprinted from* Wang J, Nansel T, Iannotti R. Cyber and traditional bullying: differential association with depression. J Adolesc Health 2010;48:416. Copyright © Elsevier; with permission.)

These results are recent and interesting. While they strongly suggest that being an online victim has many of the same negative outcomes as traditional bullying, there is also the implication that the effects might be even more severe. There are several potential reasons why the influence of cyberbullying might be harsher on its victims.[17]

First, the place the child considers to be the most secure, the home and even the bedroom, has now become a place where he or she can be a victim. Perhaps equally important, the potential for victimization is present at all times day and night. Second, because of the anonymity of the aggressor and the inability to see the victim's reactions, effects can be perceived as harsher and more threatening. Third, effects can be "forever" in cyberspace. Postings on blogs, Web sites, or chat rooms are difficult to remove, and they maintain and prolong the consequences. Finally, for some individuals it may seem totally inescapable because being online for many children and adolescents is where these individuals socialize and interact with friends. Therefore, it often becomes very difficult to escape from potential online bullying.

An important question that parents, counselors, and practitioners might ask is: are there any warning signs that someone might be experiencing cyberbullying? Recent discussions about this issue have been considered by groups such as Education.com.[26] Many of these warning signs are similar to more traditional bullying, such as:

- Displaying numerous negative feelings, including sadness, anger, frustration, reduced tolerance, and worry
- School grades beginning to decline
- Lack of eating or sleeping
- Withdrawing from family and friends, or being reluctant to attend school and social events.

However, there are some unique characteristics that are associated with the technology involved. For example:

- Avoiding the computer, cell phone, and other technological devices
- Appearing stressed when receiving an e-mail, instant message, or text
- Avoiding conversations about computer use.

All of these behaviors tend to suggest that being harassed online might be of concern.

SUMMARY AND SOLUTIONS

Cyberbullying is somewhat recent, and is a concern that only a few years ago would have been almost entirely absent from discussion. However, technology has changed and is evolving more rapidly. The use of smartphones and social networking sites are a recent phenomenon of only the last 5 years or so. There are several more recent issues regarding new technology and children that have become of concern. These newer technologies and their emergence in the lives of children and adolescents have begun to lead us to examine areas of risk that years ago were never in our vocabulary. Besides cyberbullying, sexting, driving while texting, Facebook depression, and Internet addiction are but a few aspects emerging as areas of research and discussion.

In thinking about potential solutions to these issues, governmental regulation is an unlikely answer, particularly on a media platform that is global in nature. Rating systems might help somewhat if handled adequately, but such systems are rarely used by parents and have not been effective even with simple technology such as television and the V-chip. However, some suggestions have been made as to how this system might be more effective.[27]

As discussed in the opening article of this issue by Strasburger and colleagues, parental involvement, media literacy, and other educational initiatives seem the most likely to succeed. With respect to online risks such as cyberbullying, recent suggestions by the American Academy of Pediatrics[5] seem both reasonable and important to consider. These suggestions include:

1. Parents need to open up discussions with their younger children and adolescents about their online use and the specific issues face by today's online kids.
2. Parents need to become better educated about the many technologies their youngsters are using, and to fully understand both the positive and negatives sides of the Internet
3. Families should have an online-use plan that involves discussions of online topics and checks of privacy settings.
4. Parents should supervise online activities through active participation and communication, as opposed to remote monitoring with a "net-nanny" program (software used to monitor the Internet in the absence of parents).

There have also been suggestions that intervention and prevention programs need to go beyond merely a focus on the Internet exclusively. As Mitchell and colleagues[28] note, "Internet safety educators need to appreciate that many online victims may be at risk not because they are naive about the Internet, but because they face complicated problems resulting from more pervasive experiences of victimization and adversity." These investigators are quite correct, and intervention programs and education on media literacy need to consider the totality of the child's and adolescent's environment.

In a recent editorial in the *Journal of Adolescent Health*, Hertz and David-Ferdon[29] offer good insight into how we might focus on the issue of cyberbullying in terms of education and prevention:

> *Although bullying prevention strategies abound, there is mixed evidence of their effectiveness in changing bullying behavior among youth in the United States. However, there is evidence that comprehensive youth violence prevention programs can decrease aggressive behavior and increase prosocial behaviors. Therefore, despite the temptation to address new manifestations of youth aggression, such as online victimization, with new programs, we echo the call by Mitchell et al. to consider the context in which online victimization occurs, and suggest that researchers examine online related outcomes for existing evidence-based violence prevention programs. Given the interaction between online and in-person victimization and perpetration, researchers and practitioners should examine the effectiveness of existing evidence-based youth violence prevention programs in preventing online and in-person aggression.[29]*

The era of new technology and its influence on health-related issues for children and adolescents are firmly confronting us and changing almost daily. Many of the articles in this issue speak to the ever rapidly evolving media environment for today's youth. (See article by Strasburger and colleagues elsewhere in this issue for further exploration of this topic.) Fortunately, excellent methodologies and theoretical perspectives are available to not only understand these changes but also educate parents, practitioners, and ourselves.

When thinking about these newer technologies, one should keep in mind what Huesmann notes about the decades of research and theory on traditional media.[30] This extensive research and development of theory has provided significant insights into the role new technology will play in the development and mitigation of aggressive behavior such as cyberbullying. As Huesmann and others have noted, "the technology

conduit may be changing, but the influential processes (eg, priming, activation and desensitization) may be the same."[24]

REFERENCES

1. Strasburger VC, Council on Communications and Media. Media violence (policy statement). Pediatrics 2009;124:1495–503.
2. Strasburger VC, Council on Communications and Media. Children, adolescents, and advertising (policy statement). Pediatrics 2006;118:2563–9.
3. Strasburger VC, Council on Communications and Media. Sexuality, contraception, and the media (policy statement). Pediatrics 2010;126:576–82.
4. Donnerstein E. The media and aggression: from TV to the internet. In: Forgas J, Kruglanski A, Williams K, editors. The psychology of social conflict and aggression. New York: Psychology Press; 2011. p. 267–84.
5. O'Keefe GS, Clarke-Pearson K, Council on Communications and Media. Clinical report: the impact of social media on children, adolescents, and families. Pediatrics 2011;127:800–4.
6. Gutnick AL, Robb M, Takeuchi L, et al. Always connected: the new digital media habits of young children. New York: The Joan Ganz Cooney Center at Sesame Street Workshop; 2010.
7. Lenhart A, Ling R, Campbell S, et al. Teens and mobile phones. Washington, DC: Pew Internet & American Life Project; 2010.
8. Rideout V. Generation M2: media in the lives of 8- to 18-year-olds. Menlo Park (CA): Kaiser Family Foundation; 2010.
9. Arbitron. The infinite dial 2011: Navigating digital platforms. Available at: http://www.arbitron.com/study/digital_radio_study.asp. Accessed February 2, 2012.
10. Livingstone S, Haddon L. EU kids online: final report. London: LSE; 2009. EU Kids Online.
11. Donnerstein E. The internet. In: Strasburger VC, Wilson BJ, Jordan AB. Children, adolescents, and the media. 3rd edition. Thousand Oaks (CA): Sage, in press.
12. Donnerstein E. The Internet as "fast and furious" content. In: Warburton W, Braunstein D, editors. Growing up fast and furious. Sydney (New South Wales): The Federation Press, in press.
13. Strasburger VC, Jordan AB, Donnerstein E. Health effects of media on children and adolescents. Pediatrics 2010;125:756–67.
14. Malamuth N, Linz D, Yao MZ. The Internet and aggression: motivation, disinhibitory and opportunity aspects. In: Amichai-Hamburger Y, editor. The social net: human behavior in cyberspace. New York: Oxford University Press; 2005. p. 163–91.
15. Wright PJ, Malamuth NM, Donnerstein E. Research on sex in the media: what do we know about effects on children and adolescents? In: Singer DG, Singer JL, editors. Handbook of children and the media. 2nd edition. Los Angeles (CA): Sage; 2012. p. 273–302.
16. Livingstone S, Haddon L, Görzig A, et al. Risks and safety on the internet: the perspective of European children. Full findings. London: LSE; 2011. EU Kids Online.
17. Tokunaga R. Following you home from school: a critical review and synthesis of research on cyberbullying victimization. Comput Hum Behav 2010;26:277–87.
18. American Academy of Pediatrics Committee on Injury, Violence, and Poison Prevention. Role of the pediatrician in youth violence. Pediatrics 2009;124:393–402.
19. Jones LM, Mitchell KJ, Finkelhor D. Trends in youth internet victimization: findings from three youth internet safety surveys 2000-2010. J Adolesc Health 2011;50:179–86.

20. Mitchell KJ, Jones LM, Finkelhor D, et al. Youth internet safety survey. Durham (NH): Crimes against Children Research Center, University of New Hampshire; 2011.
21. Lenhart A. Cyberbullying: what the research is telling us. Washington, DC: Pew Internet & American Life Project; 2009.
22. Wolak J, Mitchell KJ, Finkelhor D. Unwanted and wanted exposure to online pornography in a national sample of youth internet. Pediatrics 2007;119:247–57.
23. Associated Press-MTV digital abuse survey. 2011. Available at: http://surveys.ap.org/data/KnowledgeNetworks/AP_DigitalAbuseSurvey_ToplineTREND_1st%20story.pdf. Accessed February 2, 2012.
24. Ferdon CD, Hertz MF. Electronic media, violence, and adolescents: an emerging public health problem. J Adolesc Health 2007;41:S1–5.
25. Wang J, Nansel T, Iannotti R. Cyber and traditional bullying: differential association with depression. J Adolesc Health 2010;48:415–7.
26. What are the signs that my child is being bullied online? Available at: Education.Com; http://www.education.com/reference/article/signs-child-bullied-online. Accessed February 2, 2012.
27. Gentile DA. The rating systems for media products. In: Calvert S, Wilson B, editors. Handbook on children and media. Boston: Blackwell; 2007. p. 527–51.
28. Mitchell KJ, Finkelhor D, Wolak J, et al. Youth internet victimization in a broader victimization context. J Adolesc Health 2011;48:128–34.
29. Hertz MF, David-Ferdon C. Online aggression: a reflection of in-person victimization or a unique phenomenon? J Adolesc Health 2011;48:119–20.
30. Huesmann RL. The impact of electronic media violence: scientific theory and research. J Adolesc Health 2007;41:S6–13.