

Cyberbullying: Harassment at your fingertips

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Introduction

The Internet fuses technology with social interaction, making it a prime medium to extend bullying beyond direct, face-to-face aggression. Cyberbullies use digital or electronic media to transmit threats, sexual harassment, demeaning messages or malicious rumors to harm or shame victims.¹ Online harassment is ubiquitous and has become a public health epidemic. As many as one-third of middle and high school students report being targets.² About one-third admit to cyberbullying others. The most common media for cyberbullying are email and social media including Facebook, Twitter, YouTube, Snapchat, Instagram and chat rooms.

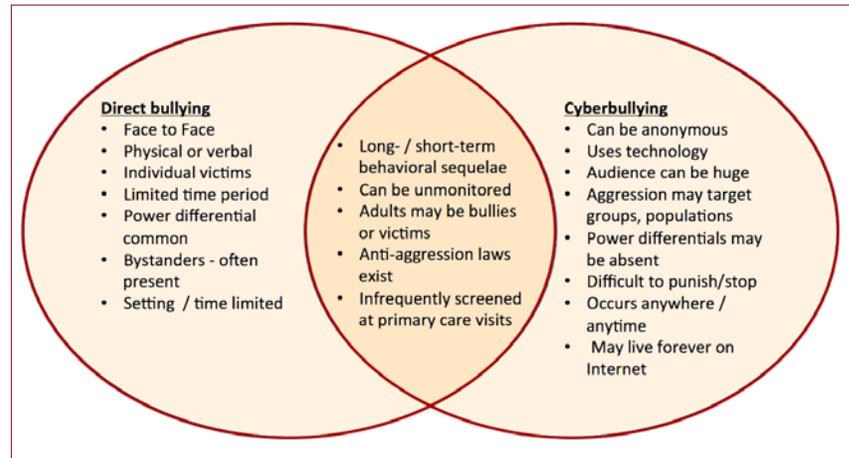
Typically a problem of children and adolescents, cyberbullying also affects adults, including students, teachers or workers at any level. A 2017 national Pew Research Center survey reported that 40% of adult Americans have been harassed online.³ Even teachers are victims. As many as one-third of college and post-graduate professors report cyberbullying by students.⁴ In addition to email and social media sites, students can post inappropriate, anonymous evaluations of their teachers on websites such as www.ratemyteachers.com.

Dramatic, high-profile harassment, such as a victim suicide, receives the most attention from media. The dangers of pervasive minor, daily microaggressions get less notice. Yet, inappropriate criticism, hurtful name-calling or taunts have a cumulative, corrosive impact on victims.

What are the consequences for victims?

Victims of bullying are at risk for poor life outcomes. They are more likely to be substance abusers, receive poor grades in school or drop out. Self-esteem may be decreased; they may experience isolation and social phobia, impaired-self-identity, chronic depression, burnout and anxiety.^{2,5} Sexually-related cyberaggression, most commonly directed toward females, is especially harmful.^{5,6} Victims are more likely to report the perception of loss of control over their lives. Data indicate that cyberbully victims have much higher rates of suicide ideation and attempts. Social media, including online forums, have been used to develop suicide pacts between

Figure 1. Comparison: Direct vs. Cyberbullying



both friends and strangers.⁷ Harassment is associated with school violence. As many as half of fatal school shootings may be associated with having been bullied at school.⁸

Why is cyber aggression difficult to detect?

Unlike direct bullying, online bullying can be anonymous, occur in private, unmonitored settings and is easy to accomplish. (Figure 1) Bullies hide behind an impersonal computer or cell phone. Power differentials, frequent in face-to-face attacks, may be absent. Co-occurrence with direct bullying is frequent, but aggressors may exclusively cyberbully due to perceptions of limited consequences. Disinhibition can be enhanced by using a fake name, stealing someone else's on-screen identity or attacking unknown victims.⁵

Who is more likely to be a cyberbully?

Aggressors are commonly both victims and perpetrators of prior direct bullying. Other risks include male gender, substance abuse, exposure to antisocial media, feeling unsafe at home, work or school. Behavioral traits linked to online aggression include limited empathy, moral disengagement, sadism, narcissism, disorganized attachment style and frequent absences and poor performance at work or school.⁹

Who is more likely to be a victim?

Anyone can be a target. Girls and women are more commonly victims of all forms of online aggression, including

sexually-related attacks.¹⁰ Those at greater risk are victims of face-to-face bullying, those perceived to be different due to a physical or mental disability, race or ethnicity, socioeconomic class, gender expression or sexual preference. Targets are more prone to exhibit emotional or peer problems, social anxiety and come from troubled families.³ Online behavior can encourage bullying by uploading inappropriate or controversial material, including sexually explicit photos.

Doctors as cybervictims

Now, even the public can taunt, deride, demean or vilify healthcare professionals.¹¹ Physicians' online presence is ubiquitous – published work, recorded lectures, blogs, social media sites and forwarded emails. Online ratings of doctors are everywhere. Many professionals and healthcare communities have their own webpages, blurring privacy boundaries. Anyone with a computer – students, patients, colleagues, former friends or a stranger with anti-social traits – can unearth your CV, cost and photo of your home, marital status and legal judgments against you.

Inappropriate, scathing content can spread virally, including exposure to licensing boards, residency selection committees and prospective employers. Some trainees hide behind the anonymity of social media or anonymous teacher evaluations to post unethical, biased and false criticism of faculty.⁴ The pervasiveness of damaging web-based posts has spawned websites such as <https://removeonlineinformation.com/> where doctors and others can pay to expunge or hide negative, defaming online content. Cyber aggression is more likely when public opinions involve hot-button issues such as gun safety, abortion or national health insurance.

Why Facebook won't remove ads that lie

Current societal trends facilitate population-based, online bullying. (Table 1) In October 2019, Facebook refused, when challenged, to delete political ads against specific rivals even though the material was proven to be outright lies, stating, "We are not in the business of censoring ads from political

campaigns."¹² Facebook noted that "even false statements and misleading content in ads are important in the conversation." Other media giants – YouTube and Twitter – also opined that these ads complied with company policies.

Thus, we have a dangerous new world of fake news, alternative facts and fabrication. "Twitter trolling" is a form of malicious online content, where governments, political parties or their supporters disseminate disinformation and fabrications disguised as credible to attack rivals, entire communities or countries. Lies can remain unchallenged or uncensored, seen by millions – living forever on the Internet.

What can be done?

Adults should search for specific clues that loved ones are suffering from bullying. Warning signs can include poor school performance or frequent absences, avoidance of computers, cell phones and other devices; stress when receiving email, instant messages or text. Parents should assess interactive video games, some of which glorify violence toward women and male dominance.¹³

Parents must communicate with children about online safety and danger and create online-use plans, assess children's privacy settings, monitor online activities and understand the limitations of software detection of worrisome Internet use. Additionally, they need to discuss safe and unsafe aspects of social media, reduce time online or on social media sites as needed. However, restricting Internet access or confiscating cell phones has not been shown to decrease cyberbullying.

Physicians should screen for cyberbullying in appropriate settings. Traditional teaching of trainees to explore whether their patients have been hit, kicked or punched should expand to include if they have been otherwise harmed, including verbal abuse and online bullying. Medical school curriculum committees, residency training programs, hospital, university and faculty administrations should assess the adequacy of guidelines and training related to direct and online bullying.¹⁴

Which victims need a behavioral health referral? Patients presenting with suicidal or homicidal thoughts, severe anxiety or depression should be referred for psychiatric care. Police involvement is necessary for sexual assault or rape, online sexual solicitation of minors, threats of violence, stalking or hate crimes. Many states, including Rhode Island, have enacted anti-cyberbullying provisions. A federal government website, www.stopbullying.gov, offers practical help.

Social media, smart phones, bullies and the Internet will not disappear. The message is simple – any bullying is dangerous, unacceptable and non-negotiable. ❖

Table 1. Cyberbullying – Examples

Disgruntled med student creates inappropriate Facebook profile of professor
Angry patient posts false, malicious physician rating using multiple aliases
Fatal school shooting linked to being bullied
Troll transmits authentic-looking image – iPhone can be charged in microwave ovens
Wikipedia page of political rival vandalized with lies
Online harassment victim commits suicide
Former boyfriend posts sexually explicit images on social media
Interactive video game portrays systemic violence against women
Student's password hacked to send fake emails
Indiscreet, inappropriate photos on med student's social media identities

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Keeping the Fentanyl Narrative Accurate

SETH A. CLARK, MD, MPH; JASON B. HACK, MD

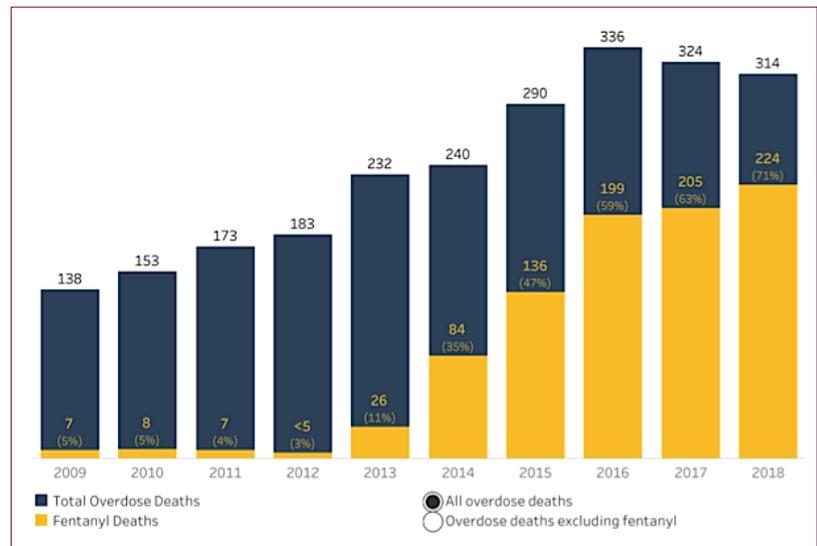
Extensive media coverage of the United States (US) opioid epidemic has increased attention on substance use and its inherent risks. Important conversations and resources have been brought to bear on this issue. While this focus has advantages, there are aspects that are ripe for controversy and misunderstanding. One area of factual ambiguity are reports that first responders (e.g. emergency medicine service providers and police) are being occupationally exposed to white powder – presumed to be fentanyl – and having life threatening “opioid overdoses.”

Fentanyl is a fully synthetic opioid 50–100 times stronger than morphine. This highly potent opioid analgesic was developed for the medical treatment of severe pain. The majority of illicit fentanyl is manufactured in Mexico with precursor chemicals from China and trafficked north into the US and Canada.¹ Experts refer to the intentional fentanyl adulteration of the heroin supply and resulting increased mortality as the opioid epidemic’s “third wave,” with the first wave being increased prescription opioid misuse followed by transition to illicit heroin use as the second wave.

Fentanyl, and even more potent analogs, have become synonymous with “heroin” in Rhode Island (RI) and are making up an increasingly greater proportion of overdose deaths. While overdose deaths in RI have begun a modest decline (peak at 336 in 2016, down to 314 in 2018),² the proportion of OD deaths determined to be caused by fentanyl continues to increase. Fentanyl caused 4 deaths (3% of OD deaths) in 2012, which increased to 224 deaths (71%) in 2018.²

Because of the high potency and potential lethality of illicit fentanyl in uncontrolled dosage, there has been, understandably, an increase in exposure concerns among health care providers involved in their care. From Vermont to Michigan there have been news stories of “opioid overdoses” from occupational exposure to powder thought to be fentanyl.^{3,4} These reports describe variable symptoms ranging from “anxiety” to “unresponsiveness” that occurred seconds to hours after exposure. Symptoms have been reported after nominal exposures (brushing off a small amount of white powder from a sleeve) and sometimes without any

Figure 1. Annual overdose deaths in RI, including proportion due to fentanyl.²



clear physical contact. Additionally, what makes these news items less clear has been the variable responses to naloxone with many exposures not responding to the antidote at all. One case described an officer who reported a resolution of his symptoms (“feeling sick”) following self-administration of naloxone.⁵ To date, none of these reports have included conformational body fluid testing from the victim which would confirm a true fentanyl exposure.

While these news stories are intended to inform the public of potential risks, they may be based on inaccurate information. A lay person reading these media reports might not recognize that the diverse symptomatology, incongruous time course, and variable responses to naloxone are not consistent with opioid overdoses and become unduly concerned. The risk of significant incidental exposure is extremely low, as fentanyl is not easily absorbed through intact skin. The American College of Medical Toxicology (ACMT) and American Academy of Clinical Toxicology (AACT) released a position statement in late 2017 that stated “the risk of clinically significant exposure to emergency responders is extremely low. To date, there have not been reports of emergency responders developing signs or symptoms consistent with opioid toxicity from incidental contact with opioids. Incidental dermal absorption is unlikely to cause opioid

toxicity. For routine handling of most drugs, nitrile gloves provide sufficient dermal protection.⁶ They further reported: “if bilateral palmar surfaces were covered with fentanyl patches, it would take approximately 14 min to receive 100 mcg of fentanyl [using a body surface area of 17,000 cm², palm surface area of 0.5%, and fentanyl absorption of 2.5 mcg/cm²/h]. This extreme example illustrates that even a high dose of fentanyl prepared for transdermal administration cannot rapidly deliver a high dose...Therefore, based on our current understanding of the absorption of fentanyl and its analogs, it is very unlikely that small, unintentional skin exposures to tablets or powder would cause significant opioid toxicity, and if toxicity were to occur it would not develop rapidly, allowing time for removal.”⁶

In regards to breathing in aerosolized fentanyl, the ACMT and AACT report states, “at the highest airborne concentration encountered by [industrial fentanyl producers], an unprotected individual would require nearly 200 min of exposure to reach a dose of 100 mcg of fentanyl.”⁶ The Office of National Drug Control Policy and the Centers for Disease Control and Prevention have similar positions regarding skin exposure and aerosolization.^{7,8}

The ACMT and AACT position statements, coupled with the inconsistent constellation of symptoms of reported exposures, suggest that people are likely not becoming intoxicated by fentanyl with incidental exposure – but are undergoing the “nocebo effect.”⁹ This is where negative expectations result in physical and psychological effects; this is in contrast to the positive expectations associated with the placebo effect. Thus, people think they are experiencing deleterious symptoms they understand to be associated with exposure to a substance they believe to be fentanyl. With national and international information sources reporting these cases as overdoses, it may serve to further entrench the public’s misunderstanding and fuel nocebo effects. A careful read of many described cases have symptoms more consistent with panic attack after presumed exposure than opioid overdose.

The potential consequences of inaccurate information are numerous. Regardless of the etiology, first responders have become incapacitated and unable to optimally perform their life-saving duties. Additionally, healthcare professionals and the general population are less likely to render aid if they believe it will put them at risk. This is a particular concern because of the need to administer naloxone to an opioid overdose victim in a timely manner to save their life.

While the ACMT and AACT statements explicitly describe the extremely low risk of OD with incidental fentanyl exposure, distributed information often contains inconsistent and mixed messages that have been repeated in conferences and training videos.⁸ Establishing clear case definitions, including clinical examination and confirmatory laboratory

results, would be crucial to disseminating accurate and evidence-based information. The American Medical Association stated they will “work with appropriate stakeholders to develop and disseminate educational materials aimed at dispelling the fear of bystander overdose via inhalation or dermal contact with fentanyl or other synthetic derivatives.”¹⁰ Making certain the information being disseminated is accurate will help avoid potentially dangerous false narratives – within the lay public, first responders, and the community of people at risk for opioid overdose. ❖

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