

“Sexting” Among U.S. Adolescents: Psychological and Legal Perspectives

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This article will discuss the phenomenon of “sexting” (i.e., the exchange of sexually explicit images between adolescents via cell phone) in the United States, with a particular focus on clinical and legal implications. Although sexting is frequently discussed in the popular press, there is virtually no scientific literature available on this topic. In contrast, the legal literature has discussed sexting more comprehensively due to the implications of child pornography statutes for the social response to involved youth. This article will consider sexting from a clinical and legal perspective, and recommend ways to understand and address this practice clinically with adolescent patients. (HARV REV PSYCHIATRY 2012;20:86–96.)

Keywords: adolescent psychology, law, sexting, sexual behavior

It is a sure-fire recipe for legal trouble: combine hormone-raging teens with image-transmission technologies, and then stir them together in a sex-saturated society replete with outdated laws and a criminal justice system that never could have anticipated such a combustible confluence of forces. Signs of symptoms of this salacious problem are cropping up across the United States.

—Clay Calvert¹

The topic of “sexting,” or the exchange of sexual images between adolescents via cell phone, has spurred a vigorous, if often sensational, discourse in the popular press. The foregoing quotation from a noted legal scholar suggests the many social, legal, and developmental influences that may

give rise to sexting even as peer-reviewed psychological research on the topic is virtually nonexistent. Although sexting may, in certain respects, seem continuous with the historical exchange of amorous Polaroids between young lovers, the difference in technology and the potential permanence of digital images introduce novel challenges, both clinical and legal. The exchange of images between adolescents also needs to be understood in the context of the contradictory social, lay, and legal attitudes about sexual activity between minors.^{2,3}

Text messaging is the most popular form of electronic communication among teens in the United States.⁴ Reports suggest that the role of social media (e.g., cell phones and text messaging, social-networking sites, gaming sites, virtual worlds) in adolescent clinical presentations is increasingly common in child forensic practice⁵ and among youth in residential care.⁶ Researchers have therefore suggested that a significant part of the current generation’s social and emotional development occurs relative to those technologies.⁷ Empirical guidance on ways to manage such phenomena clinically is obviously needed.⁸

This article will review sexting within two levels of discourse, clinical and legal. It aims to provide an overview of sexting and the associated legal controversies, as well as to suggest a clinical approach. I will begin by describing the centrality of cell phone use among U.S. adolescents today, reviewing the available data on the prevalence of sexting, and discussing the range of definitions proposed. Because peer-reviewed data and other scholarship remain scarce,

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I will suggest why text messaging and sexting may be so compelling for teenagers, taking into account known neuropsychiatric influences and psychological factors. A review of the associated legal controversies will follow, including the application of child pornography statutes to adolescent sexting. Proposed legal alternatives will also be discussed; this area of law is emerging and is presently characterized by more questions than solutions. I will conclude with a synthesis of clinical and legal perspectives, including recommendations for addressing youth-produced sexual images in clinical practice.

CELL PHONE USE AND THE PHENOMENON OF SEXTING

The cell phone is one of many electronic technologies that adolescents in the United States use regularly to express emotional experience and navigate developmental demands. Among contemporary adolescents—a cohort dubbed *digital natives*⁹—the cell phone, in general, and texting, in particular, are social centerpieces. According to the Pew Center, approximately 75% of 12- to 17-year-olds now own cell phones, an increase from 45% from 2004.⁴ As noted above, text messaging is the preferred form of basic communication among adolescents today, even ahead of cell calling. Between 2006 and 2009, most forms of communication remained steady among teens (e.g., via instant messaging, social-networking sites, or landline phones); it was only the frequency of texting that increased. Of note, Pew data suggest that even email is increasingly viewed as outdated among teens, as youth now prefer more immediate forms of communication such as texting and instant messaging.⁴

Among surveyed teens who text daily, half reportedly sent 50 or more text messages per day, or 1500 texts a month. One in three youth send more than 100 texts a day, or 3000 texts a month, with available data suggesting that older girls (i.e., ages 14 to 17) text more frequently than their male counterparts and younger girls. Adolescent girls are also more likely to text for social reasons, including long text exchanges about personal matters.⁴

Unlimited text-messaging plans appear to be the new norm for many youth, though this phenomenon is socioeconomically patterned. Two-thirds of teens who live in households with annual incomes of \$50,000 or more report that their parents finance such unlimited text-messaging plans, whereas only one-third of youth from households with annual incomes less than \$30,000 are on such plans.⁴

One controversial use of the cell phone among adolescents is known as sexting. The term *sexting* is popularly used to describe many behaviors: the exchange of sexual images by different media (e.g., cell phone or Internet), between people of various ages (e.g., between minors, or between minors and adults), or in situations that involve a range of

motives (e.g., consensual or coercive). Thus, the term *sexting* is extraordinarily broad and inclusive, which tends to confuse an already poorly understood phenomenon. For the purposes of this discussion, the term *sexting* will be used to refer to the exchange of sexually explicit images between minors via cell phone. In order to overcome terminological problems and bring some clarity to the present analysis, the term *sexting* will be used here consistently in this one, narrow sense across disparate literatures (e.g., popular, scientific, legal). The merits of broader definitions that take into account the full range of empirical phenomena will also be discussed, however, along with the advantages of using such empirically based definitions in the future. Another matter requiring attention is whether—and if so, which—sexually explicit images of minors sent by minors via cell phone meet the statutory definition of child pornography.

SEXTING: DEFINITION, PREVALENCE, AND SCOPE

Most writers date the origin of the term *sexting* to coverage in the popular press, which began around 2007. By 2009, the word was a finalist for the “word of the year” by the *New Oxford American Dictionary*.¹⁰ Although the current article focuses on sexting in the United States, the behavior is also reported to occur in Australia, Canada, China, and the United Kingdom.⁸ As noted above, however, definitions of sexting vary broadly in both law and research. One influential definition came from the National Center for Missing and Exploited Children (NCMEC), which defined sexting as “youth writing sexually explicit messages, taking sexually explicit photos of themselves or others in their peer group, and transmitting those photos and/or messages to their peers.”¹¹ Thus, NCMEC’s definition includes neither minor-to-adult (or vice versa) transmissions nor images sent under “duress, coercion, blackmail or enticement,”¹¹ although a determination of whether these factors exist in any one situation may be complicated.¹² Regardless of NCMEC’s definition, reports in the popular media have characterized various incidents as sexting that included frankly coercive and exploitative dynamics,¹ further muddling the definition. Thus, sexting has historically encompassed a range of behaviors (i.e., both voluntary and coercive) and has lumped age groups together (i.e., the exchange of images between adults, between minors, and between adults and minors). The colloquial use of the term thus typically fails to distinguish among the range of scenarios, motivations, and potential risks associated with this behavior.

The only empirically derived definition of sexting is based on a typology of such behaviors recently released by the University of New Hampshire’s Crimes Against Children Research Center.¹³ The typology reflects a review of

550 cases obtained from a national survey of law enforcement agencies in 2008 and 2009, and focuses on the more problematic form of sexting: sexually explicit images whose content qualifies as child pornography. Although child pornography statutes differ across jurisdictions, most prohibit the knowing production, receipt, distribution, and possession of sexually explicit images of minors.¹² In the context of the federal statutory definition of child pornography,¹⁴ “sexually explicit conduct” includes actual or simulated sexual intercourse (i.e., genital-genital, oral-genital, anal-genital, or oral-anal), bestiality, masturbation, sadistic or masochistic abuse, and the lascivious exhibition of the genitals or pubic region in an individual under 18 years of age.¹⁵ State laws may have even broader definitions of lascivious exhibition; for example, in Massachusetts lascivious exhibition includes images of the buttocks, pubic region, and partial or fully developed breasts of a minor.¹⁶ The legal implications of these definitions will be discussed later.

In lieu of the term *sexting*, the authors of the University of New Hampshire typology proposed the term *youth-produced sexual images*, which they define as “pictures created by minors (age 17 or younger) that depict minors that are or could be child pornography under applicable criminal statutes.”¹³ Their definition also includes various forms of transmission (e.g., cell phone, webcam, and digital) and the full range of incidents that come to the attention of law enforcement (e.g., those involving adults and situations that do not involve romantic relationships). Of note, since this typology emphasizes sexual images that meet the statutory definition of child pornography, it is concerned with the form of sexting potentially associated with the most problematic legal consequences. It nevertheless remains an empirical question whether the majority of sexted images among U.S. adolescents meet the statutory definition of child pornography. The one peer-reviewed study that has considered this question found that only 1% of surveyed youth (i.e., 10- to 17-year-old Internet users) reportedly appeared in or created pictures or videos that could be considered sexually explicit (i.e., showed naked breasts, genitals, or bottoms).¹⁷ Separate from the questions of whether a sexted image is sexually explicit and whether it meets a statutory definition of child pornography, however, any sexual image could, from a clinical perspective, lead to serious problems or complications for the persons involved and even come to be considered as elements in criminal cases, as happened in one federal appellate case.¹⁸

In contrast to a simple, broadly inclusive definition of sexting, the University of New Hampshire typology distinguishes between *aggravated* and *experimental* categories of youth-produced sexual images.¹³ Aggravated incidents involve criminal or abusive aspects, including adult involvement and criminal or abusive behavior by minors (e.g., sex-

ual abuse, extortion, threats, and forwarding images against the will, or without the knowledge, of the youth depicted). Thus, *aggravated* as a class of self-produced sexual images may overlap with electronic/cyber-bullying or the use of digital media to communicate embarrassing, false, or hostile information peer to peer.⁷ Of note, research has suggested that the most common form of online harassment (which is related to, but distinct from, cyberbullying), occurs via cell phones/text messages.¹⁹

The typology’s second category of self-produced images is *experimental*.¹³ This category includes youth who take pictures of themselves “to send to established boy- or girlfriends, to create romantic interest in other youth, or for reasons such as attention-seeking,” but without any criminal behavior beyond the creation or sending of images. The concept of experimental incidents converges with clinical writing that describes how sexting may provide a range of psychological functions, some potentially adaptive (e.g., a means for socially inhibited youth to safely experiment with sexual involvement).⁸ This typology provides the first empirical framework that captures the diversity of motives, meanings, and implications that sexting may involve. Although preliminary, it represents a great improvement in empirically based knowledge about this behavior, as it suggests ways to discriminate among forms of self-produced sexual images—and in ways that may have implications for tailoring social and therapeutic responses.

Of note, published writing about sexting that preceded the University of New Hampshire typology consisted primarily of non-peer-reviewed sources that have, in effect, tilted public and perhaps professional opinion in an alarmist direction. These early studies remain influential, however, and are thus worth consideration and critique. Specifically, popular interest in sexting originated with an online survey of U.S. youth conducted in 2008 jointly by the National Campaign to Prevent Teen and Unplanned Pregnancy and CosmoGirl.com.²⁰ According to that report, 20% of U.S. adolescents between 13 and 19 reported sending or posting nude or semi-nude pictures of themselves. The majority of youth reported sharing images with their boyfriends or girlfriends, but 38% indicated receiving text or images originally intended for someone else but that had then been shared with them. Fifty-one percent of girls surveyed cited “pressure from a guy” as the reason that they sent an image, compared to only 18% of boys who reported pressure from girls. Despite this survey’s methodological limitations (e.g., a non-representative sample, inclusion of young adults, no peer review) and a more conservative definition of sexting, the 20% figure was publicized widely in the popular press, and a spate of media coverage followed. The Associated Press called sexting “shockingly common,”²¹ and National Public Radio described sexting as a “disturbing new teen trend.”²² The extent of media rhetoric spurred the *Wall Street*

Journal to opine, “Which is epidemic—sexting, or worrying about it?”²³

A 2009 Pew Center telephone survey of a nationally representative sample of youth ages 12 to 17 yielded lower estimates:²⁴ 4% of cell phone–owning teens in this age group had created and sent “sexually suggestive nude or nearly nude photos or videos” by cell phone, and 15% of them had received such images. Older teens were more likely to send such images, with a steady increase by age in the likelihood of receiving such images via text by age. Only 4% of 12-year-olds reporting receipt, compared to 20% of 16-year-olds and 30% of 17-year-olds. No statistically significant gender differences were evident in terms of sending or receipt of images. Of note, youth responsible for paying their own cell phone bills were more likely to send sexually explicit images than youth who contributed only a portion of the cost or whose parents paid the entire bill; 17% of the former, but only 3% of the latter, reported sending such images. The Pew study also conducted focus groups of youth ages 12 to 17, which identified three common scenarios for sexting: images exchanged between two romantic partners, images exchanged between two partners and then shared with a third party, and images sent where one party wished to initiate a relationship. This focus group data suggested that sexting may serve as a form of “relationship currency,”²⁴ with girls, in particular, reporting pressure to send images of themselves.

Although not peer reviewed, the foregoing reports were the only available reference points for information about the prevalence of sexting until recently. The varying estimates for sending self-produced sexual images between the National Campaign/CosmoGirl.com and Pew studies likely reflect different methodologies. The former asked about sexual images not only sent by cell phone but also shared online or via email, and it focused on young adults in addition to adolescents. Both differences could have inflated estimates.

The one peer-reviewed study on the prevalence of sexting, also produced by the University of New Hampshire research group, suggests that the earlier National Campaign and Pew surveys may have overestimated the number of youth who engage in sexting, whether with images that are explicit and possibly illegal, or merely sexually suggestive. According to that recent study by Mitchell and colleagues,¹⁷ approximately 7% of surveyed youth had received nude or nearly nude images of others, and almost 6% had received sexually explicit images. More than half (61%) of youth who appeared in or created images of themselves were girls, and the majority (72%) were older teens (i.e., ages 16–17). A similar pattern of results in terms of gender and age was observed among youth who received images only. Most youth produced images of themselves rather than being photographed by other youth. A notable minority of sexting incidents involved an aggravated component, typically drug or alcohol use. Of particular note, few youth reportedly distributed

sexted images to others.¹⁷ Similar to the earlier national surveys,^{20,24} the study by Mitchell and colleagues¹⁷ suggests that appearing in, as well as receiving, sexted images is associated with emotional distress for some youth, including feelings of upset, embarrassment, or fear.

Examined together, there is some convergent data among the earlier national surveys and the more recent, peer-reviewed investigation. Data suggest that sending or receiving sexual images by cell phone, whether or not these images meet the legal definition of child pornography, is not necessarily normative among adolescents. However, a proportion of youth have sent or received images, and some may receive images in which they played no personal role.^{17,20} Further, the behavior appears most common among older adolescents, with very few younger teens involved.^{17,20,24} This trend is consistent with previous research on Internet use, in which older adolescents’ use of technology is more interactive when compared to that of children or early adolescents.²⁵ The national surveys suggest that girls report feeling pressured to self-produce sexual images,^{20,24} although more research is needed to clarify this finding. It is striking, and perhaps reassuring, that relatively few individuals distributed these images to others.¹⁷

Of note, sexually experimental, transgressive, and even exploitative behavior such as certain forms of sexting is not a new social phenomenon.²⁶ The potential for digital images to exist in perpetuity, however, as well as the psychological effects of the widespread distribution of such images, does present the potential for uniquely pernicious harm.^{1,27} Further, although the exchange of images may begin in an experimental or friendly context, it may abruptly shift to an aggravated one—especially given the vicissitudes of adolescent relationships, the normative increase in sexual energy during this period, and potent neurodevelopmental influences. Thus, no matter how researchers categorize the behavior empirically or understand its epidemiology, the range of clinical considerations associated with youth-produced sexual images for individual adolescent patients may well evolve more rapidly than research can capture. I therefore suggest an idiographic approach when working clinically with phenomena at the interface of adolescent sexual behavior and technology. Such an approach is likely to yield a better understanding of the behavior’s meaning, consequences, and potential risk for individual youth. Accordingly, the next section will review salient developmental aspects of adolescent sexual behavior as well as relevant clinical factors that will aid in assessment.

CLINICAL PERSPECTIVES

The emergence of powerful sexual feelings is a normative aspect of adolescent sexual development.³ Adolescence is a period characterized by the physiological upheaval

of puberty and the adolescent's psychic reorganization relative to these changes. Sexual interest, energy, and drives typically peak during adolescence; curiosity, exploration, and poor decision making may be age-appropriate aspects of adolescent sexual development.³ Given this normative range, demarcating the boundaries of typical and atypical sexual behavior during adolescence is notoriously difficult,²⁸ and the overlay of social media and electronic technologies makes these distinctions even more complex. Contemporary writing has described the reciprocal influence of new technologies on adolescents' developmental aims.^{9,29,30} A review of related clinical factors may help describe salient influences on sexting between teenagers.

Brain Development

One way to understand the transmission of youth-produced sexual images between adolescents is relative to brain development during that period. Major structural changes in the prefrontal cortex occur until age 25, with immaturity in this region associated with an underdeveloped capacity for impulse control, judgment, decision making, planning, and the integration of emotions and thinking.^{31,32} Neuroimaging research with adolescents suggests a shifting balance during this period between frontal (executive-control) and limbic (emotional) systems.³² Specifically, abilities encompassed by the term *executive functions* (e.g., attention, organization, long-term planning, response inhibition) are believed to rely on frontal lobe circuitry that is relatively late to mature—a process that continues through late adolescence.

Sexting, consistent with neurobiological development, may be viewed as an emotionally driven behavior that is often impulsive and without a clear anticipation or understanding of the potential adverse consequences. An adolescent who speaks rationally about sexting when calm may nonetheless engage in the behavior (including in an aggravated manner) when emotionally aroused. Real-world decision making typically occurs under conditions of "hot cognition," or high emotional arousal.³² The fact pattern of high-profile sexting cases lends credence to this observation, with the wider distribution of sexual images typically occurring following a breakup, when emotional reactivity may trump careful reasoning.¹²

"Relationship Currency," Sexual Exploration, Sexualization

The Pew Center's findings suggest that self-produced sexual images may represent a form of "relationship currency"²⁴ between prospective or romantically involved adolescents,

with girls more likely to report social pressure to take and send images of themselves. This finding is consistent with a review of high-profile sexting cases—which also suggested that girls are subject to some form of social pressure to self-produce sexual images.¹² Self-production typically began with an overt solicitation of females by males, who would then circulate the images to others. The song "Dirty Picture" by Taio Cruz and featuring Ke\$ha (both of whom are popular with the adolescent demographic) illustrates this paradigm: Cruz laments a woman's absence, and he requests a "dirty picture" in her place.

It is difficult to determine, especially in the absence of additional research, how to understand this finding about girls and sexting: do girls' self-production and exchange of sexual images reflect a form of healthy sexual exploration and agency, or are they symptoms of a mainstream culture and social milieu that sexualizes young girls? Importantly, sexualization is different from healthy sexuality, and it occurs when a person's value is derived only from her (or his) sexual appeal to the exclusion of other characteristics.³³ A review of research on sexualization indicates that women are sexualized in virtually every form of media.³³ Although contemporary examples exist with respect to young girls (e.g., the child star Miley Cyrus pole dancing at the Nickelodeon Kid's Choice Awards), more research is urgently needed. Findings from the adult literature, however, suggest the possible role of sexualizing influences on young girls' use of technology. Thus, just as research on neurodevelopmental influences may help contextualize the practice of adolescent sexting, the widespread sexualization of girls is a potent social influence that may provide another lens through which to understand girls' reported feelings about sexting.

The practice of youth-produced sexual images suggests the ways in which healthy sexual exploration and the processes of sexualization may blur for girls. As stated in a classic text on adolescent development, "within the context of other developmental goals, one is supposed to become a self-motivated sexual actor."³⁴ The question of self-motivated sexual action around youth-produced sexual images is an important, if thorny, matter: to what extent do youth freely participate in these behaviors, or do so because they feel that, based on interpersonal and social norms, it is expected? As one high school senior respondent in the Pew study's focus groups explained:

When I was about 14–15 years old, I received/sent these types of pictures. Boys usually asked for them... My boyfriend, or someone I really liked asked for them. And I felt like if I didn't do it they wouldn't continue to talk to me. At the time, I thought it was no big deal. But now looking back it was definitely inappropriate and over the line.²⁴

A large body of research suggests that sexualization often occurs via an intrapsychic process known as self-objectification, a psychological mechanism by which girls (though potentially also boys) learn to think of their bodies as objects of others' desires.^{34,35} Research has documented this phenomenon among preadolescent and adolescent girls, with higher rates among women than men.³⁶ Experimental research has repeatedly linked self-objectification in girls with a range of negative outcomes, including impaired performance on mental tasks, such as mathematical computations or logical reasoning,^{37,38,39} higher levels of anxiety about physical appearance and shame about the body,⁴⁰ and diminished sexual health behaviors (e.g., decreased condom use, lower sexual assertiveness).⁴¹ If youth-produced sexual images are one expression of self-objectification, it may have critical implications for girls' capacities to understand and recognize their own sexual desire and pleasure, as well as to assert themselves in relationships. It may also contribute to the girls' development of sexual identity as something that involves a performance—something “to do” (or be done to) rather than experience.⁴²

Neurodevelopmental maturation during adolescence and the sexualization of girls are two factors that need to be investigated in relation to sexting. Clinicians may also want to consider how these factors (e.g., aspects of brain maturation, interpersonal decision making, facets of normative sexual development, cultural influences) increase vulnerability to sexting behavior in individual patients. It is not that such developmental questions around sexuality, identity, and intimacy make technology inherently dangerous for teens; instead, the problem is that electronic devices may, in effect, usurp behavioral choices before an individual may be psychologically prepared. This phenomenon is elegantly captured in the foregoing quotation, in which a high school senior can see now, “looking back,” that her earlier behavior was “over the line.” Of course, such retrospective clarity is not unique to technology use, as the hindsight of psychological growth always provides a sharper view. What is different about sexting is that a digital artifact of sexual behavior is created in the act: the potential circulation and permanency of this image introduce a range of troubling legal questions.

LEGAL PERSPECTIVES

Until recently, the only criminal laws available to address sexting have been child pornography laws, which typically prohibit the knowing production, receipt, distribution, and possession of sexually explicit images of minors.¹² As noted earlier, federal law defines “sexually explicit” in this context to include actual or simulated sexual intercourse (including genital-genital, oral-genital, anal-genital, or oral-anal), bes-

tiality, masturbation, sadistic or masochistic abuse, and the lascivious exhibition of the genitals or pubic region in an individual under the age of 18.¹⁴ State laws may have even broader definitions of lascivious exhibition (e.g., inclusive of buttocks, breasts).¹⁵

Adolescent sexting using available child pornography laws has been prosecuted in a number of high-profile cases, resulting in catastrophic outcomes for individual youth.^{1,43} For example, in 2007, 18-year-old Phillip Alpert of Florida argued with his former girlfriend and impulsively distributed her naked picture to dozens of her friends and family. This same ex-girlfriend had sent him that picture via email earlier in their almost two-year relationship. Alpert explained, “It was a stupid thing I did because I was upset and tired and it was the middle of the night and I was an immature kid.”⁴⁴ Alpert was convicted of a felony, distributing child pornography, and sentenced to five years' probation. Florida law also required that he register as a sex offender, which he is mandated to do for the next 25 years. Alpert reported that this compulsory registration led to social stigma, depression, and ultimate withdrawal from community college.⁴⁵ Less information is available on the experience and aftermath for Alpert's ex-girlfriend. Cases such as Alpert's have sparked a vigorous legal debate about the applicability of child pornography statutes to youth-produced sexual images.^{27,46,47}

A fundamental question in the jurisprudence of child pornography is the question of harm, and this question has become central in debates concerning the applicability of child pornography statutes to sexting.¹ In the U.S. Supreme Court's 1982 decision in *New York v. Ferber*,⁴⁸ the Court upheld a New York statute that banned the production and distribution of child pornography because preventing the sexual exploitation and abuse of children constitutes a critical government objective. With respect to sexting, debates are ongoing as to what, if any, harm is caused by youth-produced sexual images. Whether and, if so, how the legal system should regulate sexting depends, in part, on how one answers the fundamental question about the potential injury or harm caused by sexting.¹

As noted earlier, few reliable estimates are available for the prevalence of sexting—let alone rigorous empirical research that distinguishes among the different kinds (e.g., aggravated, experimental, that which does or does not meet the statutory definition of child pornography) and their potential harms. Data from the Pew study and the one peer-reviewed prevalence study suggest that a portion of youth who sext report no ill effects or negative consequences,^{17,24} although circulated images may induce extreme and obvious emotional suffering in individual cases. In 2008, 18-year-old Jessica Logan committed suicide after a nude picture of herself, which she sent by cell phone to her boyfriend, was distributed throughout her high school.⁵⁴ She was then

reportedly harassed daily at school (notably by girls), and she ultimately became afraid of attending school at all.

Many assert that the primary psychological harm of a sexted image is similar to that of non-self-produced child pornography, because of the potential for circulation and its possible permanence¹—what is referred to within child pornography jurisprudence as the perpetuity of victimization.²⁷ Although not well researched, clinical writings about the effects of child pornography on child victims,⁵⁰ as well as victim statements utilized in prosecuting child pornographers,⁵¹ suggest long-standing traumatic effects for child victims. Part of this harm is due to the image's permanence and unknown reach, both of which may retraumatize victims and exponentially increase the helplessness and loss of control typically associated with child sexual abuse.

Although a review of the legal arguments about the applicability of child pornography sanctions to sexting between minors is beyond the range of this article, it is fair to say that the matter is controversial. Some advocate using the term *self-produced child pornography* to reflect the potential for sexted images of adolescents to enter the vast open market for online child pornography, to be circulated among adult pedophiles, and to be used for grooming child victims.²⁷ Others argue that sexting between minors does not constitute child sexual abuse—the phenomenon that child pornography laws were designed to curb—and thus that other legal responses are required.⁵²

Many states are considering or have already implemented legislative reforms, with proposals ranging from complete decriminalization of sexting, equal criminalization with child pornography, and an array of intermediate positions (e.g., creation of a status-offense category, a multidisciplinary team response, diversion, or mediation).^{27,46,47} One legal scholar has suggested that other existing criminal laws—such as laws that target cyberbullying, harassment by electronic communication, or cyberharassment, rather than child pornography statutes—may apply to aggravated forms of sexting.¹ As an example of a more psychologically informed legal response, in 2009 the Indiana State Senate passed a resolution that urged the legislative council to mandate the committee on sentencing policy to consider the issue of sexting by minors and to craft a legislative proposal that took into account existing knowledge of adolescent sexuality and development.¹²

Youth-produced sexual images thus exemplify how rapid technological change can outpace existing law. (The same phenomenon can be also seen in other parts of psychology and psychiatry; for example, the expanding practices of teletherapy and telemedicine challenge licensing laws that were drafted prior to the availability of technologies such as Skype.) Given the difficult, unresolved legal questions

associated with sexting, a social or educational, rather than specifically legal, response may more appropriate; any proposed solution should, in any event, be “multidisciplinary and not exclusively prosecutorial.”²⁷ As two legal scholars have remarked about sexting, “A successful solution requires more education, and the criminal justice system is a woefully inadequate educator.”⁴³

Although not educators per se, child psychologists and child psychiatrists regularly provide parent guidance, consult with schools, and impart psychoeducation to teenagers and their families. I will next explore these different professional tasks in relation to sexting.

SYNTHESIS AND RECOMMENDATIONS FOR CLINICAL PRACTICE

An adolescent's self-production of sexual images can potentially result in undesired contact with larger systems (e.g., legal, clinical, educational). Although, in the long run, such systems may eventually help resolve these matters for individual youth, the present lack of consensus about what these images signal, either psychologically or legally, precludes a uniform social response. More data are needed, and it remains possible that many youth who self-produce sexual images will do so more or less harmlessly.⁴ This perspective is consistent with one legal scholar's analogy between youth-produced sexual images and “visual love notes”⁵³ or with what an attorney (as quoted in *The New York Times*) referred to an “electronic hickey.”⁵⁴ As in most aspects of adolescent behavior, it is likely that teens who create or send youth-produced sexual images represent a heterogeneous group. Evaluation of the meaning for any particular adolescent patient is therefore critical.

Assessment and Risk Factors

A developmental perspective on the relationship between youth and technology suggests that digital worlds are a social context for adolescent development along the lines of other more familiar contexts (e.g., families, peers, school). As such, online/digital activities may function as a space for youth to navigate offline concerns.⁵⁵ Given this continuity between a teenager's on- and offline activities, mental health professionals should inquire about a teenager's use of technology as part of any standard clinical evaluation. Although no standardized instruments are available, taking an Internet use history⁵ is a clinically useful starting point. Given the diversity of motives and harms associated with texting, clinicians should determine, as noted above, the significance of cell phone and texting behaviors for each patient. This understanding should be part of an overall psychological formulation that integrates the entirety of an adolescent's

presentation, including vulnerabilities, risk factors, and sexual history. In my experience, an expression of curiosity about a teenager’s cell phone use naturally facilitates a wealth of psychological information about its meaning to the patient. As with other topics related to sexual behavior, a straightforward, nonjudgmental approach may help signal that a frank discussion of these matters is welcome and that therapy is a fruitful setting in which to discuss these experiences. I encourage clinicians to ask teenagers directly whether they have ever sent or received a sexual image by cell phone, or to explore this question indirectly by asking about other youth. Such an assessment will help clarify the cell phone’s idiosyncratic meaning for an individual teen, and to what extent it helps or hinders him or her to meet developmental demands.

Although clinicians should anticipate the universality of cell phone use among youth, it is important to listen for ways in which individual patient characteristics may introduce or heighten possible risk (e.g., impulsivity, cognitive limitation, substance abuse, mood instability, attentional problems, a history of abuse or other disturbed boundaries). Digital platforms such as the cell phone and text message present new opportunities for boundary violations and sexual harassment (e.g., password sharing/hacking, monitoring of peers’ behavior via text, harassment via text and image). It is therefore possible that youth with histories of disturbed boundaries, whether due to abuse or other attachment traumas, may be more vulnerable to the misuse of text-messaging technology.

Given the limited research on sexting, I suggest the judicious extrapolation from related lines of research on adolescents’ use of other forms of technology. For example, research on cyberbullying suggests that involvement as either a bully or victim is associated with increases in both suicidal thoughts and suicide attempts compared to youth not affected by peer aggression.⁵⁶ By extension, teenagers who use the cell phone to engage in harassment or who are thereby victimized may be at higher psychosocial risk. A parallel body of literature on adolescents and Internet use suggests that overall, the Internet and related technologies appear to exacerbate psychosocial risk for youth with preexisting vulnerabilities rather than create new risk.⁵⁷ Youth who already manifest psychiatric symptoms offline (e.g., depressive symptoms, self-harm, strained parental relationships, history of maltreatment) are most likely to engage in higher risk behaviors online (e.g., interacting with strangers, discussing sex with unknown adults).^{57,58} These data are correlational only, however, and the causal relation between risk factors and technology use remains unclear. The application of these findings to sexting dynamics should be made with caution, although the available research does suggest the possibility that involvement in problematic forms of sexting may signal other forms of adversity.

Clinicians should also consider the role of peer influence on the self-production, as well as circulation, of sexual images. Although it is well known that adolescents are susceptible to peer influence, recent neuroimaging research highlights how risk taking in the presence of peers affects the brain’s reward circuitry and undermines decision making.⁵⁹ These phenomena, when combined with the use of electronic devices that are designed to facilitate immediacy and rapid transmission, may have direct impact on teenagers’ decision making about self-produced sexual images.

Parent Guidance and School Consultation

Parent guidance and consultation to schools are additional ways that mental health clinicians may be asked to address sexting. Increased parental monitoring has been suggested as a sensible alternative to the enactment of new laws to address sexting or the criminal prosecution of minors under child pornography statutes.¹ In my experience, parents frequently seek input on whether and how to monitor their adolescents’ use of technology. To start, clinicians should help close the “digital divide” between adolescents and their parents through informed psychoeducation about the role of digital media in the lives of contemporary teens.⁵⁵ Clinicians should anticipate some degree of reluctance, misperception, or confusion about digital media among the parents of digital natives,⁹ as this divide tends to be an important backdrop to family-based conflict around technology use and misuse.^{7,9,55} Teenagers typically navigate digital media and ancillary devices more expertly than their parents, which can create intergenerational tensions in a family around authority, expertise, and limit setting. These dynamics present challenges to clinicians attempting to impart parent guidance about this topic, as does the rapid pace of technological innovation and the ever changing, creative ways that youth use social media.⁹

In the case of sexting, despite the many unanswered research questions about it, parents should understand that some youth participate, that some apparently experience no ill effects and others report distress, and that the risk that sexted images may be circulated to unintended individuals is real. Parents need to determine what photo-transmitting equipment their children possess, how these technologies are used, and what characteristics of their children may increase or mitigate the need for close monitoring.⁷

In the absence of professional consensus about what degree of parental monitoring of teenagers’ digital lives is recommended, research on related aspects of parent-child communication—including communication with teens about sexuality and sexual behavior—may help guide clinicians faced with this challenge. Available research suggests

that the manner in which parents communicate with their adolescents about topics such as sex is more important than the mere fact of communication and that effective parental communication can have a protective effect on adolescents' sexual behavior. For example, adolescents whose parents are nonjudgmental, open, and receptive in their communication with their teenagers about sex are at reduced risk of engaging in risky sexual behaviors of various sorts.^{60,61} This line of research suggests that parents should address the topic of sex with their children—and by extension, digital media and its use in the home—not through a one-time conversation, but through an ongoing dialogue that should begin early and occur often, across developmental time. Clinicians can help parents adjust the content, frequency, and manner of related conversations as adolescents mature.⁶¹ It may be, then, that youth with parents who, more broadly, engage in this kind of communication with them about sexuality and sexual development may be better equipped to manage the challenges of sexting. Of course, supportive conversations between adolescents and their parents depend on the general health of the overall family environment and on teenagers' relationships with their parents—both of which may be fostered through work with clinicians.

School consultation and the possibility that a patient may face disciplinary action as a result of sexting are two other potential tasks for clinicians. The one peer-reviewed study on the prevalence of sexting suggests that in almost one-third of the cases in which youth appeared in or created sexual images, or received images in which they played no personal role, either the youth reported images to an authority (e.g., parent, teacher), or an authority found out in some other way.¹⁷ Many high-profile cases of sexting have originated in schools, including the first federal appellate case on this topic.¹⁸ The usual fact pattern in such cases is that an adult, typically a teacher or school administrator, has confiscated a cell phone containing sexts or otherwise learns that sexts are being distributed around school. The fact these cases often begin in schools is important because of the lack of consensus around First Amendment protections in that setting. Constitutionally, sexting by students attending public school involves a complicated intersection of several lines of jurisprudence,⁵³ including student speech and the implications of the 1982 *Ferber* obscenity decision,⁴⁷ which held that child pornography is obscene expression unprotected by the First Amendment.⁴⁸ Since no court has yet faced the question of a school's responsibility vis à vis sexting,⁵¹ no explicit legal guidance is available to school administrators and staff who encounter sexts among the student body. In such cases, many administrators have simply referred the matter to law enforcement.

Against the above background, what mental health clinicians can do—whether as consultants to schools or on behalf of their child patients—is to educate schools regard-

ing what little empirical data exist to guide the handling of these cases, and also to bring a psychological perspective to bear on the teens involved or on the school environment or local community. Sexting, like bullying, has the potential to reflect disturbed social dynamics in the school or local community.⁵⁶ Perhaps most valuably, clinicians may offer a psychologically and factually informed perspective on sexting—one that counteracts the alarmist, sensationalist coverage in the popular press and that also sheds some light on a phenomenon not well understood by the teens themselves. Depending upon the circumstances of the case, such an approach may help mitigate overly punitive responses or may spur increased concern about what has occurred.

CONCLUSION

Exploration of what texting and sexting mean to individual teenagers may be clinically fruitful, as the behaviors' functions are diverse and potentially of psychological significance. In my experience, adolescent patients are delighted to introduce aspects of their cell phone behavior to clinicians when they perceive that doing so is welcome. Adolescents may, for example, share a text message that they have sent or received, one they would like to send, or an exchange that they found upsetting. Projective and conscious aspects of cell phone use are fertile ground for therapeutic exploration. Clinicians are encouraged to consider a behavior such as sexting relative to developmental aims of this period,⁵⁵ and to help teens explore whether the desired sentiment might be expressed in words rather than through a technological act (e.g., text, sext, Facebook status update). Such an inquiry may identify the psychological matter at hand (e.g., to disclose a truth, shame another, express sexual interest), which the clinician can then help the teen find a way to express in words and offline. Clinicians should bear in mind, too, that as youth become more reliant on electronic devices, such devices may also become the most effective means by which youth can put their feelings into words at times of psychological distress, thereby supporting developmental transitions that promote resilience and growth.

In terms of future directions, I recommend the use of language that is more neutral and that reflects the evidence base—for example, *self-produced sexual images*—as opposed to the colloquial gloss of *sexting*, which fails to distinguish among a range of motivations and contexts. When such behaviors emerge clinically, clinicians may be most effective when they can identify the source of teenagers' or parents' concerns. For example, when a parent is upset about a child's sexting, does it reflect the parent's own anxiety about the adolescent's nascent sexuality, or is there a genuine question about boundaries, judgment, or safety? Such an approach may help clinicians avoid the pitfall of overfocusing

on the technology rather than on the qualities of the sexual behavior being expressed.

The legal scholar quoted at the outset of this article (Clay Calvert) was correct in drawing attention to the distinction between self-produced sexual images and other, more objectively prevalent and potentially high-risk sexual behaviors among teenagers¹—a distinction that may put current worries about sexting in perspective. For example, although more than half of U.S. teenagers aged 15 to 19 have reportedly engaged in oral sex (with females and males reporting similar levels of experience),⁶³ many of them either minimize or are not aware of the associated risk of disease.⁶⁴ These figures exceed the available estimates of sexting and underscore the importance of a measured perspective in the face of novel technology.

Challenging though it may be, it is important and also within our professional traditions and training for us, as clinicians, to achieve a moderate, constructive approach to the socially volatile, psychologically complex issues involved in adolescent sexual behavior. Such an approach may serve as a useful support to our adolescent patients and their families, as well as a much-needed complement to ongoing social and legal controversy.

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