

# Social Media Use among Adolescents: Benefits and Risks

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**Abstract:** *Background:* Although use of social media is an important part of adolescents' lives, the mental health impact of this activity is largely unknown to practitioners.

*Methods:* An extensive literature search was conducted regarding social media use among adolescents and the benefits and potential risks associated with that use. A PUBMED search was conducted using various terms including "social media and teens", "social media and suicide", "facebook and suicide", "sexting", "cyberbullying", "facebook and teens", "social media and self-injury". Relevant articles were examined and used in this review. Also, reports on adolescent social media use from the Pew Internet and American Life Project were examined.

*Results:* This newer form of communication has many benefits to adolescents and plays an important role in their social lives. Despite the numerous benefits of these technologies, there are also several potential risks that can be detrimental to the mental health and well-being of adolescents.

*Conclusions:* It is critical that child psychiatrists and other mental health providers be informed of these potential risks so they can more effectively educate and treat their adolescent patients and their families.

**Keywords:** Adolescents, cyberbullying, internet, pro-eating disorder websites, self-injury, sexting, social media, suicide.

## INTRODUCTION

Social media and internet use among adolescents has increased tremendously in recent years. Teens today have a greater presence online more than they ever have in the past. According to the Pew Internet and American Life Project, 95% of teens ages 12-17 access the internet, and 70% do so daily (Lenhart, 2011). Many adolescents now own devices with internet access (such as iPads, Smartphones and video game consoles) which enable them to go online from anywhere and at any time. Social media has become one of the main forms of communication among teens and it now plays an integral role in their lives. Social media refers to any website that allows for social interaction and the exchange of ideas (O'Keefe & Clarke-Pearson, 2011). Social media may include social networking sites such as Facebook®; photo/video sharing sites like Pinterest®, Instagram® and YouTube®; blogging sites including Tumblr; interactive video gaming sites such as World of Warcraft® or Teen Second Life®; instant messaging; chat rooms; bulletin boards; discussion forums; and email. (Subrahmanyam & Greenfield, 2008). On social networking sites, teens can create online profiles and personalize their pages by adding photos, videos, quotes and other material. They are able to link their personal page to those of other users called "friends" and connect to a larger online network. 76% of all teens use social media. 64% do so on a daily basis, and 41% have accounts on multiple sites (Lenhart, 2011). The use of

social media is more popular among older teens, particularly among older teenage girls (Lenhart & Madden, 2007). Girls primarily use these sites to reinforce pre-existing friendships, while boys mainly use these sites to flirt and make new friends (Lenhart & Madden, 2007). There are many benefits to teens from using social media including their ability to connect with friends. At the same time, there has been great public concern about how social media websites affect adolescent health and development. The aim of this review is to provide an overview of the many potential benefits and risks associated with social media use among adolescents. It is crucial for mental health providers to understand how and why teens are using these sites and the negative impact they may have on their mental health and well-being.

## BENEFITS AND APPEAL OF SOCIAL MEDIA

Why is social media appealing to many adolescents? Forming and maintaining close and meaningful interpersonal relationships is an important developmental challenge of adolescence. Social media provides adolescents with the opportunity to strengthen existing friendships and to form new ones. (O'Keefe, Clarke-Pearson, & Council on Communications and Media, 2011). Research shows that teens are mainly using social media to communicate with pre-existing offline friends and spend time together, make plans, discuss everyday issues and gossip (Subrahmanyam & Greenfield 2008; Lenhart & Madden, 2007). The development of a secure and firm sense of identity and the development of sexuality are two other important tasks of adolescence. Self-presentation and self-disclosure are important skills necessary to accomplish these tasks; social media pro-

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vides teens with a place to learn, practice, and rehearse these skills (Valkenburg & Peter, 2011). Teens can explore and shape their identity by choosing what information and aspects of themselves to share and also with whom to share it (Moreno, 2012). Based on the feedback and reactions they receive from peers, they may modify their self-presentation (Moreno, 2012, Valkenburg & Peter, 2011). The validation and acceptance they receive is important for the development of a healthy self-esteem and positive sense of self. In a survey of 600 9-18 year old children and adolescents who visited online chat rooms and used instant messaging, half reported that they did so to see how others would react to them, overcome shyness, or make new relationships (Valkenburg, Schouten, & Peter 2005).

The Internet can afford some degree of anonymity and, compared to face to face interactions, teens find it easier to stop and reflect on what they want to communicate before doing so, and this asynchronicity and anonymity can be especially helpful for teens that are normally shy or anxious in face to face interactions. (Valkenburg & Peter, 2011). These teens are thus able to practice social skills in a manner that is less threatening or uncomfortable. Those who are self-conscious about their appearance or body image may feel more comfortable communicating online where they can be judged based on their personal interaction instead of their physical appearance (McCarty, Prawitz, Derscheid, & Montgomery, 2011). The degree of anonymity afforded by the Internet is also greatly appealing to teens suffering from shame, isolation and distress (Whitlock, Powers, & Eckenrode, 2006). Social media can be very attractive for teens whose interests differ from those of mainstream culture (Moreno, 2012). These teens can connect with others who share their interests, a unique opportunity to further develop their specific hobbies or interests.

Teens can also use these sites to express creativity and share their creations (O'Keeffe *et al.*, 2011). Teens can post their writing, music and other artistic pieces. Feedback on these pieces can allow them to develop their creative talents and may facilitate interaction with those who have similar talents or interests. In addition, teens can use social media to work on school projects with their classmates outside of school.

The Internet can be a useful source of health information and education, which can be easily accessed by teens. Although some of the medical information on the internet can be misleading or inaccurate, there is a benefit to teens being able to access accurate medical information online (Mitchell & Ybarra, 2008). Due to the anonymity of the Internet, adolescents may feel more comfortable searching for sensitive health topics online than elsewhere (Mitchell & Ybarra, 2008). They may be more likely to search the Internet for topics like sexually transmitted diseases, depression, pregnancy or birth control. Among young adults online, 75% have used the web to get health information (Rideout, 2002). About 1 in 4 young people ages 15-24 have used the Internet to look up information on weight loss or weight gain, depression or other mental illness, violence or problems with drugs or alcohol (Rideout, 2002). Berger and colleagues (2005), in an large national survey of internet users, found

that individuals with a stigmatized illness such as depression or anxiety “were significantly more likely to have used the Internet for health information, to have communicated with clinicians about their condition using the Internet”, or “to have increased utilization of health care based on information found on the Internet”. Through social media teens can connect with others with similar illnesses or medical concerns. Teens can learn more about their illness and receive reassurance or validation by joining awareness or support groups.

## **POTENTIAL RISKS ASSOCIATED WITH SOCIAL MEDIA USE AMONG ADOLESCENTS**

### **Display of Risky Behaviors**

As teens explore their sexuality and identity on social media sites, they may post images, videos or text referencing risky behaviors including substance use, sex and violence. Teens may display this material on their pages in various forms including pictures of themselves or others engaging in these acts, comments or posts about their participation in these behaviors, photos, or quotes referencing these behaviors. For example, a teen may comment about drinking and getting intoxicated at a party the prior night. In a study by Moreno, Parks and colleagues (2009), an analysis of 500 MySpace profile pages of 18 year old college students showed that 54% referenced risky behaviors; 24% referenced sex, 41% referenced substance abuse and 14% referenced violence. Teens may not be aware of the significant risks associated with displaying such behaviors on their pages.

First, these posts are public (to various degrees) and can be easily shared or viewed by others. These posts may influence how the teen who shares this information is perceived by others. College admission committees, job recruiters or other adults may pass judgment or make negative assumptions about the adolescent based on what information is displayed on their page (Moreno and Kolb, 2012). This can result in a teen's not getting accepted to a college, being disciplined at school or getting fired from employment.

Second, there is the concern that social network sites act as a “superpeer,” normalizing risky behaviors and encouraging adolescents to engage in them, especially if they are perceived as free of negative consequences (Moreno, 2010). In a focus group study by Moreno, Briner and colleagues (2009), adolescents ages 11-18 viewed alcohol references on social network sites as representative of actual use and displays of real behavior. Adolescents in this study also viewed these references as attempts to “look cool” or to gain social acceptance. The researchers expressed concerns about how these behaviors could promote the use of alcohol, especially among younger adolescents.

Third, display of risky behaviors may encourage unwanted expectations in others. In another focus group study of male college students by Moreno and colleagues (2011), male college students reported that sexual references on females' social networking sites increased sexual expectations among the males. The display of risky behaviors on

these sites can place teens at a higher risk of being targets for sexual victimization (Mitchell, Finkelhor, & Wolak, 2007).

### Sexting

Sexting has received considerable attention in the media. Sexting refers to the “sending or receiving of sexually-explicit or sexually-suggestive images or video via a cell phone” ([www.cyberbullying.us](http://www.cyberbullying.us)). It can also refer to sexual messages in texts and through other electronic devices (Mitchell, Finkelhor, Jones, & Wolak, 2012). The prevalence of sexting varies widely among studies and depends on how the term is defined, the age group being studied, the methodologies used and the form of media used for sexting. Prevalence rates among youth have been found from 4-28% for sending sexts and 13-31% for receiving sexts (see [www.cyberbullying.us](http://www.cyberbullying.us), [www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx)), and [www.thenationalcampaign.org/sextech/PDF/SexTech\\_Summary.pdf](http://www.thenationalcampaign.org/sextech/PDF/SexTech_Summary.pdf), Temple *et al.*, 2012). A more recent national study depicted lower rates of sexting when the term was restricted to include only images which were sexually explicit (depicting bare breasts, genitals and/or bottoms). When this narrower definition of texting was applied, only 1% of teens had admitted to appearing in these images or videos and 5.9% had reported receiving these explicit images and videos (Mitchell *et al.*, 2012). Age has been shown to be the main predictor for sexting, as older teens engage in this behavior more frequently ([www.cyberbullying.us](http://www.cyberbullying.us), [www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx); Temple *et al.*, 2012). No gender differences for sexting have consistently been found in studies ([www.cyberbullying.us](http://www.cyberbullying.us); [www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx)). One study exploring sexting in teens found that teens who text frequently, those with unlimited texting plans and those who mainly use their cell phones for entertainment and to combat boredom are more likely to receive sexts ([www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx)).

Why do teens engage in this form of risky behavior? Adolescence is a time characterized by the exploration of one’s sexual identity. Social media has become a place where this type of exploration often occurs. In a focus group study of adolescents conducted by the Pew Research Center’s Internet and American Life Project, teens shared how sexting can be a form of relationship currency ([www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx)). They described how sexts are often sent as a part of sexual activity or in lieu of sexual activity, and can be sent in order to start or maintain an existing romantic relationship. They also discussed how sexts may be subsequently passed along to friends for their entertainment or as a joke. The female adolescents in these focus groups also reported feeling pressured by boys they were interested in to send these images and messages.

There are potential risks related to this behavior. Sexting images can easily become public or disseminated to large groups of people. Even when an adolescent deletes a photo sent from their computer or cellphone, the receiver can still forward the photo or share it with others (Katzman & Canadian Paediatric Society, 2010). These risks are pre-

sent even when an adolescent sends these images only to the person they are in a relationship with. Teens may forward these photos to others after an argument or breakup with the significant other who sent it as a form of enacting revenge or blackmail. Sexting can therefore lead to online harassment and cyberbullying. There have been several cases publicized by the news media where teens have committed suicide thought to be related to bullying after their nude photos were widely distributed. One of these teens was Hope Witsell, a 13 year old girl who hung herself in 2010 after a topless photo she sent to a boy was shared with classmates at local schools ([www.cnn.com/2010/LIVING/10/07/hope.witsells.story/](http://www.cnn.com/2010/LIVING/10/07/hope.witsells.story/)). Teens who engage in sexting also expose themselves to the risk of online sexual solicitation and unwanted attention from college admission committees, school personnel or other adults in a position of authority. There are can be serious legal consequences associated with sexting. The law related to sexting varies from jurisdiction to jurisdiction but some adolescents faced serious charges under child pornography laws for engaging in this behavior (Sadhu, 2012, [www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx](http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx)).

### Cyberbullying and Internet Harassment

Cyberbullying has garnered significant attention in the media in recent years, mainly due to multiple high profile cases of teen suicides attributed to this newer form of bullying. Mental health professionals who treat adolescents frequently encounter patients who have been bullied online and witness the negative psychological impact of cyberbullying on their patients. Cyberbullying is described as the “willful and repeated harm inflicted through the use of computers, cell phones and other electronic devices” (Hinduja & Patchin, 2010). Common forms of cyberbullying include spreading rumors or sending hate messages; creating profiles, webpages or videos for humiliation; distributing inappropriate photos or videos and sending threatening, malicious or hurtful messages. Cyberbullying has been difficult to study for several reasons and therefore the actual prevalence and other characteristics of this behavior have not been accurately or consistently described. The prevalence among studies varies significantly and depends on several factors including the group being studied, the form of electronic media used for bullying, how the behavior is defined and the methodologies used. Rates among studies vary greatly but on average the victimization rate is approximately 20-40% (Tokunaga, 2010). Since there has not been a consistent definition and operationalization strategy used in the scientific studies it has been difficult to compare studies and to truly understand this behavior (Patchin, 2013). Some studies use broad definitions that encompass any type of harassment that can occur online, while other studies use more narrow definitions and focus on specific forms like humiliation and physical threat but may exclude insults or hateful speech (Patchin, 2013).

There are certain aspects of cyberbullying that make it different from traditional bullying. Bullies are able to maintain a degree of anonymity on the Internet. They can disguise their identity by using pseudonyms or pseudonymous e-mail or user accounts, or impersonate someone else (Hinduja & Patchin, 2008). In a survey of undergraduate students con-

ducted by the Massachusetts Aggression and Reduction Center in 2007, bullying online was described as an opportunistic crime that is easy to engage in since it can be done anonymously and does not involve physical interaction with the victim (Englander & Muldowney, 2007). Adolescents may feel freer online to do or say things they may not normally do or say offline (Hinduja & Patchin, 2008). Since the bully cannot “see” or sufficiently gauge the reactions of their predator, they may not be able to recognize the emotional pain they are inflicting on the victim, and thus be unaware of the consequences of their behaviors (Slonje & Smith, 2008). Cyberbullying, unlike traditional bullying, is not well regulated or monitored by parents or school personnel. There is no clear consensus as to which specific individuals or groups are responsible for regulating online behaviors (Tokunaga, 2010). Because of poor adult supervision, adolescents may see cyberbullying as free of risk or consequences (Englander, 2012). Another main difference is the breadth of the audience (Slonje & Smith, 2008). Cyberbullying can be very pervasive, as malicious messages or rumors can rapidly spread to multitudes of people throughout various locations. For an adolescent, cyberbullying may seem impossible to escape since the various technological devices often follow the adolescent everywhere, even into their bedroom which may have previously been considered a safe haven.

In the above 2007 survey of college students conducted by the Massachusetts Aggression and Reduction Center, most perpetrators of cyberbullying attributed their online bullying behaviors to anger (65%) or a “joke” (35%), and only rarely to “revenge” or for “no reason”. This survey also found that the most common foci for online aggression were the victim’s appearance, their friends, or the person whom they dated. Females seem to use cyberbullying more often for revenge, whereas boys used it typically as a “joke” (Englander & Muldowney, 2007). Another study found that youth bullied others because it made them feel popular, powerful and funny (Mishna, Gadalla, Daciuk, & Solomon, 2010).

There also appears to be an overlap in the bully-victim role. Many youth who have been bullied online also engage in bullying others online (Ybarra, 2004b, Englander, 2012). Some studies have shown a correlation between traditional bullying and cyberbullying. Teens who are bullied offline are also likely to be bullied online (Beran & Li, 2007, Hinduja & Patchin, 2008).

Risk factors for becoming a target of internet harassment include more time spent online, sharing passwords with friends and using the Internet for instant messaging, chat rooms and blogging. (Ybarra, Mitchell, Wolak, & Finkelhor 2006; Mishna *et al.*, 2011).

Studies have shown that cyberbullying can have serious mental health consequences. Children and adolescents who experience cyberbullying both as victims and as offenders have lower self-esteem, higher rates of depression, school and academic problems, more delinquent behaviors and higher rates of suicide (Hinduja & Patchin 2007, 2010a, 2010b, Kowalski & Limber, 2013). Victims of cyberbullying have reported lower school performance and academic achievement (Schneider, O'Donnell, Stueve, & Coulter, 2012). They were less likely to attend school, were more likely to have difficulty concentrating on their school work

and received lower grades than students who were not bullied (Beran & Li, 2007). It is not clearly understood why this occurs. Teens who are preoccupied with being bullied may therefore have trouble with concentration and be afraid to attend school. Alternately, teens with academic or other school problems may be more marginalized and more likely to be targets of bullying. Also, due to the possible overlap in the bully-victim role, bullies may be preoccupied with thoughts of how they may harm their targets, which may impact their ability to concentrate on school work (Beran & Li, 2007). The Youth Internet Survey Study, a nationally representative survey of 1,501 young people who use the Internet, showed that offenders of internet harassment are more likely to suffer from “psychosocial challenges including poor parent-child relationships, substance use and delinquency” (Ybarra & Mitchell, 2004a). The type of cyberbullying can also have different degrees of psychological impact on the victim. Slonje and Smith (2008) found that bullying which used a picture or video clip had a high impact factor, likely because it often depicts the victim in an embarrassing or upsetting situation.

### Social Media and Suicide

As adolescents are increasingly using cell phones and social media as main forms of communication, they are more likely to use this technology to communicate and share their distress and suicidal thoughts with others. These sites can be a forum for expressing suicidal ideation, and there are numerous cases of individuals who have shared suicidal intent and plan via social media prior to committing suicide (Ruder, Hatch, Ampanozi, Thali, & Fischer, 2011). Psychiatrists have encountered teens who presented to the ER or were admitted to a psychiatric hospital after sharing suicidal thoughts via social media or text messages. These posts or texts often first come to the attention of a peer who informed an adult, who then alerted the suicidal teen’s parent or school staff. There are very few scientific studies investigating this new phenomenon. Belfort and colleagues (2012) studied the records of teens who were admitted to an ER with a chief complaint of suicidality, they found that the majority of these teens communicated suicidality either verbally or via gestures threatening to harm themselves. However, when they compared teens who shared their suicidality via a handwritten note to those who shared via technology (instant messages, blog entries, emails, postings on social media sites or text messages), they found that the teens who communicated their suicidality via technology were more likely to do so to a peer than to an adult. The majority (67%) of those that communicated their suicidality electronically did so to a peer, as opposed to only 33% to an adult. In the written note group, 7% communicated to a peer and 93% to an adult. This brings up the concern that as teens continue to embrace the use of technology, their peers are most likely to be the first notified of their suicidal thoughts. This then raises the question, how will peers respond to these notifications and posts? We have seen some teens who have alerted adults when they have received these concerning electronic messages. However, there are cases where teens have not notified an adult. If peers are more often the first to be notified, could this result in suicidal teens being less likely to get needed care

emergently? These researchers have suggested this might be the case (2012).

The Internet can be a source of support for teens who are experiencing emotional distress, depression or suicidal thoughts. Teens can find others online who are going through similar experiences, enabling them to feel more connected and less isolated. Through online communities, adolescents can seek guidance on how to get help and overcome distress. Adolescents can learn what has helped other adolescents who have gone through similar problems. Suicide prevention and support websites can facilitate help for adolescents and relief for suicidal thoughts. In contrast to the availability of these prevention and support sites, there are also numerous sites where teens can easily access information on how to commit suicide, and sites where teens are encouraged to act on their suicidal thoughts. Biddle *et al.* (2008) conducted an internet search for sites providing information on methods for suicide using twelve suicide related search terms including “suicide”, “suicide methods”, “how to kill yourself”. They analyzed the first 10 sites which resulted from each respective search. 240 different websites were identified in all. 90 of these were found to be websites dedicated to suicide, and half of these encouraged, promoted or facilitated suicide. Websites which provided factual information about suicide, pro-suicide websites and chat rooms discussing suicide were typically among a search’s first few results. It is likely that the pro-suicide sites appeared so frequently in this study due to the specific pro-suicide search terms. However, it is alarming that websites providing such information can be easily accessible to teens who search online using the search term “suicide.”

“Net Suicide” is a term which refers to a suicide pact which is prearranged between people who have never met except on the Internet. It includes the process of recruiting others to the pact and planning suicide using the Internet, as well as ultimately committing suicide (Naito, 2007). This phenomenon is becoming increasingly common in Japan where suicide is the most common cause of death among people under the age of 30, and up to 60 people die of net suicide each year (Naito, 2007). Suicide websites in Japan are used to exchange ideas on how to commit suicide and to plan group suicides. There have been suicide pacts in Japan where people have killed themselves via carbon monoxide poisoning, using charcoal burners, a common method of suicide in recent years in Japan. It is believed that the Internet has been instrumental in facilitating the spread of this lethal practice (Ozawa-de Silva, 2008).

Researchers have also discussed the concern of a contagion effect among adolescents exposed to online reports of suicide. Adolescents are often exposed to suicide stories online through social networking sites, discussion boards and message forums. They frequently learn about the suicidal behavior of their peers, including close friends, through social media (Dunlop More, & Romer, 2011). Exposure to these stories may increase suicidal ideation and behaviors among adolescents. There have been no studies investigating a direct correlation between exposure to online suicide reports and suicidal ideation or behavior, but the possibility is concerning to researchers (Dunlop *et al.*, 2011).

## Pro-Self Harm and Pro-Eating Disorder Websites

Adolescents who struggle with depression, anxiety, self-harming behaviors and eating disorders often feel isolated or marginalized. Many such adolescents are uncomfortable talking about these problems with their parents or peers for fear of being judged or misunderstood. There are numerous virtual communities where adolescents engaging in self-harm behaviors or disordered eating can connect with other who also engage in these behaviors. These online communities are easily accessible by teens online. Internet searches for “self injury”, “SI” or “cutting” each result in hundreds of websites. Many of these sites contain interactive discussion boards as well as factual information (Messina & Iwasaki, 2011). Whitlock *et al.* (2006) documented over 400 different active message boards devoted to self-injury in 2005, increasing to over 500 in 2006. A public internet search conducted by Chesley and colleagues (2003) found 500 websites that promoted anorexia. These sites provided specific information for initiating and maintaining anorexia (Chesley, Alberts, Klein, & Kreipe., 2003). These pro-eating disorder sites are usually referred to as “pro-ana” if they endorse behaviors related to anorexia and “pro-mia” if they endorse behaviors related to bulimia (Rouleau & von Ranson, 2010).

For many adolescents struggling with eating disorder or self-harm behaviors, involvement in these online communities provides support and the opportunity to overcome the loneliness often inherent in these habits (Whitlock *et al.*, 2007). Social and peer support are the most commonly reported benefits gained via use of these websites (Lewis, Heath, Sornberger, & Arbuthnott, 2012). Some research evidence suggests that people engaged in self-injury e-communities report that they reduce these behaviors after joining (Johnson, Zastawny, & Kulpa, 2010; Murray and Fox, 2006). The most frequent subjects of conversation on self-injury message boards are informal support and life events which trigger self-injury, followed by dialogue about the addictive nature of self-injury, anxiety regarding disclosure, experiences with counseling, methods of self-injury, and health concerns related to this practice (Whitlock, Powers and Eckenrode, 2006). There is also evidence that pro-eating disorder sites can provide significant support. Cspike and Horne (2007) found that frequency of visits to these sites in a sample of college students was related to improvements in self-esteem and decreases in loneliness. In this study, they found that users who actively engaged in these websites were more likely than “silent” users to indicate support and benefit from them. However, support in these communities is frequently described as superficial and depends on the user maintaining active participation. Those that do not use interactive components of these sites like discussion boards and chat rooms often do not receive the same level of subjective support experienced by users who participate more (Rouleau & von Ranson, 2010).

There is concern that these sites which appear to function under the guise of support may actually reinforce these behaviors among adolescents (Rouleau & von Ranson, 2010). Individuals who are active in self-injury communities may experience “narrative reinforcement,” the sharing of similar life stories and interpretations, which can normalize and subconsciously justify self-injury (Whitlock *et al.*, 2007).

Through this narrative reinforcement, teens may come to understand these behaviors as destructive to themselves and others. However, narrative reinforcement may also distract adolescents from identifying and attending to their habit's true underlying causes (Whitlock *et al.* 2007). When teens receive messages online suggesting that self-injury is often painless and that little can be done to end the self-injury, they may be less likely to seek help (Lewis *et al.*, 2012a).

In a descriptive study examining the content of self-injury videos on YouTube, Lewis *et al.* (2011) watched 50 character videos (those including a live person) and 50 non-character videos (without a live person). These 100 videos had been viewed over 2 million times and, at the time of the study, were the most commonly-viewed online self-injury videos. The majority of these videos included factual information about self-injury and/or melancholic/hopeless messages (emphasizing emotional pain). Almost all (90%) of the non-character videos showed graphic images of self-injury, and 28% of the character videos included photographs of self-injury in action. The most common method of self-harm depicted in these videos was cutting (Lewis Heath, St. Denis, & Noble, 2011). In a follow up study by Lewis *et al.* (2012b) that looked at the content of viewer's comments to these videos, most of the responses consisted of viewers sharing their personal stories of self-injury. Numerous comments also involved validating or praising the creator for the video. Most comments also indicated that the viewer was currently engaging in self-harm behaviors. Few of the comments mentioned recovery.

Through websites that reinforce self-harm and eating disordered behaviors, teens may learn new, possibly more dangerous ways to engage in these behaviors. On pro-self-harm and pro-eating disorder websites, especially the ones that are poorly moderated, teens may share specifics on how they injure themselves, including the various methods they use. Adolescents may also share and learn ways to conceal these behaviors from family, friends or mental health providers. Some of the graphic images on these sites can be triggering to teens particularly to those attempting to recover or seek treatment. Sites that are poorly moderated are less likely to include warnings about images which may upset or trigger viewers. On pro-eating disorder websites, teens can share and learn strategies on how to engage in purging, starvation and extreme dieting (Roulev & von Ranson, 2010). A content analysis of pro-eating disorder websites conducted by Borzekowski and colleagues (2010) found that 84% included content which was pro-anorexia and 64% contained material which was pro-bulimia. Eighty five percent of these sites showed "thinspiration" material (images and quotes intending to inspire weight loss) and 83% provided overt suggestions on how to engage in disordered eating. Engagement in these sites has the potential to convince the viewer to engage in unsafe, harmful behavior or reinforce such behavior and significantly interfere with treatment and recovery.

### THE ROLE OF THE CLINICIAN

Mental health providers can play a vital role in educating adolescents and their families on the potential dangers related to inappropriate or overuse of social media. For clinicians to adequately fulfill this unique role, we must be in-

formed about these technologies and learn the intricacies of them. We should also understand how and why adolescents are using these technologies.

Assessing internet and social media habits should be part of the clinical interview for each adolescent. Clinicians can start by asking the teen to share what technologies they are using. It is important to inquire about the different social media websites the adolescent frequents and to understand what specifically they are using these sites for.

Obtaining information on the duration of time spent on these websites and frequency with which these sites are visited is also important. It is critical to ascertain how the adolescent is behaving online, particularly whether they are engaging in any inappropriate or risky behaviors. It is also important to understand how the adolescent is presenting him- or herself online, including whether the teen is sharing aspects of an alternate persona or idealized self. The clinician can invite adolescents to share their online profiles, and view them together in the office. This can facilitate discussion about online activities. It is important to note that some adolescents may be reluctant to share information about their online activities which they deem private. It may be helpful for clinicians to review with the adolescent the practice's terms of confidentiality to reassure the teen that their parents will not be informed about their online activity against their will, unless imminent safety issues are present.

Clinicians should specifically screen adolescents for risky online behaviors such as cyberbullying and sexting. If the clinician finds that the adolescent engages in these behaviors or is a victim of cyberbullying, it is then important to assess for the psychological impact these behaviors have on the adolescent, including possibly causing or exacerbating depression, substance abuse or suicidality. For adolescents with self-harming behaviors and eating disorders, clinicians should assess whether they visit or participate in online communities that encourage or reinforce these behaviors. The function these websites have on initiating, moderating, or maintaining these unhealthy behaviors should also be evaluated.

If clinicians find that teens are engaging in risky behaviors online, it would first be important for the clinician to understand and explore with the adolescent their motives for engaging in these behaviors. This would allow the clinician to address underlying problems like depression, anxiety, eating disorders, poor self-esteem and interpersonal conflicts. The clinician should also encourage the teen to share what they enjoy about their use of social media; the role it plays in their life. The adolescents should be encouraged to share what they think is beneficial about engaging in these behaviors and what they think is problematic about it. This open dialogue may allow the adolescent to see other aspects of their social media use they have not considered before. The clinician must educate the adolescent on appropriate use of social media and educate him or her on potential academic, legal, and social consequences of high-risk use. Clinicians can help the adolescent reflect on how engaging in behaviors like sexting and cyberbullying can affect others. Additionally, clinicians can help adolescents realize how these behaviors are associated with depression, poor self-esteem and anxiety.

Since parents play an important role in regulating a teen's online activities, it is important for clinicians to involve parents in this discussion. Adolescents should be encouraged to speak to their parents about their online behaviors. As always, any issues which threaten a teen's imminent safety must be reported directly to the parent with or without the teen's permission. Clinicians should educate parents about online risks and encourage them to take an active role in monitoring their adolescent's online activities. Parents should know what social media sites their adolescent belongs to and what they are doing on these sites. Parents should discuss appropriate and inappropriate use of social media with their teens and they should set and enforce clear and consistent consequences for inappropriate use. Parents should also ensure that their teen is utilizing adequate privacy settings and not sharing passwords or inappropriate information on these sites. Clinicians can also work with parents on setting time limits on screen time, restricting electronic devices to common areas of the home and avoiding use of social media to close to bedtime to reduce stimulation. Clinicians should recommend that parents model appropriate use of their own technology to set a good example for their adolescents. If an adolescent is a victim of cyberbullying, parents should talk with the teen to investigate what happened and plan an appropriate response. Parents can work with teens to block the cyberbully or report the bullying to the Internet or website provider. Parents can contact law enforcement when there are threats of violence or distribution of sexually explicit images.

## CONCLUSION

Adolescents are embracing the regular use of social media, now more than ever. The use of this new method of communication among adolescents has grown tremendously over the recent years and is becoming an important focus in the lives of many adolescents. Although there are numerous benefits to social media use for adolescents, there are also several potential risks that may be detrimental to their mental health and well-being. It is crucial that mental health providers be familiar with these benefits and risks in order to more effectively educate and guide patients and families towards only safe, healthy and appropriate use of this media. It is also very important to screen for risky online behaviors and to assess for the psychological impact of these behaviors as a part of a comprehensive psychiatric evaluation.

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## CONFLICT OF INTEREST

Neither author has any conflict of interest to disclose.

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