

Social Media and Adolescent Health

Maggie R. Guinta and Rita M. John

Ms. Smith brings her 14-year-old daughter Julie to the local clinic for her well-child visit. Ms. Smith explains that for the past three months, Julie does not engage with the family as much at home and spends her free time on her cell phone and computer. School no longer appears to be a priority, and Julie's grades are falling. Ms. Smith does not know what Julie is doing while on the Internet, but Julie denies any cyberbullying or chatting with people she does not know. She likes to use the Internet to share ideas and talk about her life. She does not think her phone use is a problem because all her friends use social media as often as she does.

As Julie's nurse, how would you counsel this family? In the last decade, the use of social media has grown exponentially, and research suggests both advantages and disadvantages from its use in adolescents (Reid Chassiakos, Radesky, Christakis, Moreno, & Cross, 2016). This article will review the positive and negative effects of social media use in adolescent populations to assist families in developing healthy usage and habits.

One of the most widespread behaviors of adolescents today is the use of social media. Social media is defined as an electronic form of communication that provides a space for social engagement and interaction where users can both consume and create content (Reid Chassiakos et al., 2016). Online activities of teenagers fall into five distinct groups: communication (texting, messaging), photograph documentation, video calls and chats, pinboards, and gaming (O'Keefe, 2016). Although these communication modes may seem harmless, teens

In recent years, social media use has grown exponentially in the adolescent population. Research indicates social media offers both advantages and detriments to the health of an adolescent. Risks of social media use in this population include cyberbullying, educational and mental health consequences, sexting, and privacy concerns. Nonetheless, healthy social media use can provide increased opportunities for collaboration, communication, self-esteem enhancement, health promotion, and access to vital health information. This article will review both the positive and negative consequences of social media use, and discuss the role of pediatric nurses in mitigating negative effects and mobilizing use for positive effects. Nurses are in a prime position to assist adolescents and their families to comprehend the complexities of social media use and promote healthy habits.

need to be aware people are on the other end of social media interaction, and privacy concerns and bullying can occur.

A 2015 study of over 2,000 teens ages 13 to 17 years suggests that 92% of teens report going online daily, with almost 25% reporting constant use of online resources (Lenhart, 2015). A 2018 Pew Research Center study showed that 78% of older adolescents between ages 18 to 24 use Snapchat, with 71% visiting Snapchat several times a day (Smith & Anderson, 2018). This study also reports Instagram is also used by 71% of older adolescents, and of those, 45% use Instagram several times a day (Smith & Anderson, 2018). Approximately three-quarters of teenagers own smartphones, contributing to the rising rates of social media use. Table 1 summarizes the most frequently used social media sites among teenagers in the United States. Parental use is contributing to the rise of social media, with 78% of adults ages 30 to 49 years using social media and 65% using Snapchat (Smith & Anderson, 2018). However, an important distinction is that a common goal of adult social media use is to stay current and connected with close friends, whereas teens do not limit their posts to friends (O'Keefe, 2016). The influence of social media on the adolescent population requires consideration from nurses to support healthy use while mitigating potential adverse health consequences (Reid Chassiakos et al., 2016).

Harmful Consequences Of Social Media Use

The adolescent population is at higher risk of the negative consequences of social media due to teens' vulnerability to peer pressure and reduced ability for self-regulation (O'Keefe & Clark-Pearson, 2011). Vulnerable populations, such as lesbian, gay, bisexual, transgender, questioning, or intersex (LGBTQI) youth; adolescents with autism spectrum disorder; and adolescent females may be more at risk to the harms of social media exposure (Reid Chassiakos et al., 2016). The evolving developmental and maturity levels of adolescents, along with the extensive access to social media platforms, adds significance to the potential harm and negative consequences of its use (Hamm et al., 2015). Harmful consequences include health problems (Suris et al., 2014); emotional problems, including suicide (Mok, Jorm, & Pirkis, 2015); Internet addiction, including video game addiction (Sussman, Harper, Stahl, & Weigle, 2018); risky Internet use; and social/functional impairment (American Academy of Pediatrics [AAP] Council on Communications and Media, 2016). Unfortunately, parents may be unaware of what their child is doing while using social media, leading to possible legal implications for the teen (Seelye, 2017). Problematic Internet Use (PIU) affects approximately 4% to 6% of young adults and adolescents in the United States. PIU is associated with poor aca-

Maggie R. Guinta, MPH, MS, CPNP-PC, is a Nurse Practitioner, Columbia University School of Nursing, New York, NY.

Rita M. John, EdD, DNP, CPNP, FAANP, is an Associate Professor of Nursing and the PNP Program Director, Columbia University School of Nursing, New York, NY.

Table 1.
Social Media Use Amount in U.S. Teenagers 13 to 17 Years Old

Social Media Platform	% of Teenage Use
Facebook	71%
Instagram	52%
Snapchat	41%
Twitter	33%
Google+	33%
Vine	24%
Tumblr	14%
Different Social Media Site	11%

Source: Lenhart, 2015.

demic performance, stress, and fewer positive health behaviors; therefore, it is vital to screen adolescents (Jelenchick et al., 2015).

Cyberbullying

Cyberbullying is the use of electronic forms of contact to inflict willful and repeated harm to others (Hamm et al., 2015). Cyberbullying can be uniquely challenging because of the speed at which information can spread online, its anonymity, and the complexity in which the bully and victim roles can shift online (Reid Chassiakos et al., 2016). Standard methods of cyberbullying are name-calling or insults, the spreading of rumors or gossip, and the distribution of unauthorized pictures (Hamm et al., 2015).

Hamm and colleagues (2015) determined the median prevalence of cyberbullying in adolescents was 23% (4.8% to 73.5%). Social media platforms commonly used for cyberbullying include blogs, Twitter, social networking sites (SNS), and message boards. In school-age populations, most cyberbullied recipients know the perpetrator; however, in 10% to 27% of cases, the culprit is unknown. Cyberbullying is significantly associated with an increased likelihood of depression (Hamm et al., 2015).

Educational Consequences

Social media use during educational activities, including class time and studying, is reported in two-thirds of college students. There is a negative correlation between scholastic outcomes and the use of electronic media, including social media. Multitasking by using social media sites while in class or doing schoolwork can be detri-

mental to student academic performance (Jacobsen & Forste, 2011).

Mental Health Consequences

More recent research has concentrated on social media usage and links to depression due to concerns of its addictive use, cyberbullying, and the evocation of jealousy (Rosenthal, Buka, Marshall, Carey, & Clark, 2016). Social media may influence psychological distress through communication overload and reduced self-esteem (Rosenthal et al., 2016).

“Facebook depression” and “Facebook envy” consider the impact of social media use and mental health. The concept of “Facebook depression” was first developed in 2011 and is defined as depression that begins with an extreme amount of social media usage and subsequent development of the classic symptoms of depression (O’Keeffe & Clarke-Pearson, 2011, p. 802). “Facebook envy” develops as users compare themselves with others and can lead to a damaging life satisfaction among adolescents (Tandoc, Ferrucci, & Duffy, 2015).

Rosenthal, Buka, Marshall, Carey, and Clark’s (2016) study of 264 young adults found that negative Facebook experiences were significantly associated with depressive symptoms ($p \leq 0.05$). Tandoc and colleagues (2015) explored heavy Facebook use and depression prediction in their study of 736 Midwestern undergraduate students and found that Facebook envy was higher among heavy Facebook users and Facebook envy predicted depression ($p \leq 0.01$). In a study of social comparison and interpersonal feedback-seeking, 1,619 adolescents ages 12 to 16 years reported technology-based behavior was asso-

ciated with depressive symptoms ($p < 0.001$) (Nesi & Prinstein, 2015). In this study, moderators of the relationship between depressive symptoms and technology-based behavior were popularity and gender. In a smaller study, Jelenchick, Eickhoff, and Moreno (2013) did not find an association between SNS use and depression ($p = 0.519$), including moderate to severe depression ($p = 0.470$). Screening for depression during healthcare encounters is important given the high volume of social media use in adolescents (Zuckerbrot, Cheung, Jensen, Stein, & Laraque, 2018).

Sexting

Electronic communication of nude, seminude, or provocative images, as well as erotic text messages, or “sexting,” is a behavior used by approximately 18% to 28% of adolescents. Research suggests teenagers who sext are more likely to partake in sexual activity (Houck et al., 2014). Adolescents may not fully appreciate the potential consequences of this activity. These images can be widely and quickly distributed via the Internet or cell phones without permission of the individual in the photo. In situations where the picture becomes widely disseminated, victims face embarrassment and humiliation, and suffer emotional distress. Perpetrators can face school suspensions and legal consequences, including felony child pornography charges (O’Keeffe & Clarke-Pearson, 2011).

Privacy

Madden and colleagues (2013) reported that teenagers share more personal data on social media than they did in previous years. Middle-aged adolescents (14 to 17 years) share their cell phone number, their school name, relationship status, and pictures of themselves more frequently than younger teens (12 to 13 years). While most adolescents with Facebook profiles choose to enable private settings, over 60% of teenage Twitter accounts are made public (Madden et al., 2013).

There are varying degrees to whether adolescents understand the privacy risks when using social media. Content posted on social media – or the Internet in general – is difficult or impossible to remove. Although there are efforts by many social media platforms to protect user privacy, violations of privacy and unwelcomed

content sharing are constant risks (AAP Council on Communications and Media, 2016).

Benefits of Social Media Use

Research has suggested the benefits of social media use in adolescents include increased collaboration and tolerance, access to social support networks, and health communication and promotion. Social media platforms provide adolescents with the means to collaborate and connect with family, friends, or peers across long distances (AAP Council on Communications and Media, 2016). Social media can also be used as a valuable channel for adolescents to keep informed of school activities and essential safety alerts (O'Keeffe, 2016).

Collaboration and Tolerance

Social media platforms expose their users to novel ideas and experiences. Students can use these tools to collaborate with another outside the classroom to cooperate and exchange ideas (O'Keeffe & Clarke-Pearson, 2011). Social media informs its users of current events and provides a tool to promote civic engagement. Social media platforms offer a way for adolescents to learn, understand, and empathize with marginalized groups (Reid Chassiakos et al., 2016).

Access to Social Support Networks

One of the more noteworthy health advantages of social media is augmenting access to vital support networks. Social media can foster an environment of inclusion for individuals seeking a community. Patients with ongoing illnesses, conditions, or disabilities, and LGBTQI youth may particularly benefit from a supportive online community. Benefits of these social support networks include avoiding stigmatization, learning about available resources, and gaining information and insight (Reid Chassiakos et al., 2016).

Individuals with serious mental illnesses report benefits from online communities that include enhanced social connections, feelings of group belonging, and coping with the daily challenges of living with a mental illness through sharing personal stories and strategies (Naslund, Aschbrenner, Marsch, & Bartels, 2016). Overall, social media platforms can reach many difficult-to-engage persons.

Health Communication And Promotion

Adolescents seek health information online and via social media, including sensitive health information, like sexual health. Because adolescents exhibit low healthcare utilization, social media presents an opportunity to engage and provide tailored messaging (Wong, Merchant, & Moreno, 2014). Social media is also employed to improve health and wellness, and advocate for healthier behaviors, including smoking cessation, weight loss, and a healthy diet (Reid Chassiakos et al., 2016). The systematic review by Laranjo and colleagues (2015) suggests positive effects of social media as interventions to change health behavior. Bull, Levine, Black, Schmiede, and Santelli (2012) studied 652 late adolescents (ages 18 to 24 years) exposing them to a Facebook page called "Just Us" to increase condom use. Study results suggest an increase use of condoms at 2 months, but the effect dissipated by 6 months. Another study of physical activity and SNS reported higher initial satisfaction, but the perceived social support for increasing physical activity also did not stand up over time (Cavallo et al., 2012).

Shorter-term studies looking at Facebook to enhance weight loss over an 8-week period in 52 college students reported a significant increased weight loss in the Facebook intervention ($p \leq 0.5$) versus the control group (Napolitano, Hayes, Bennett, Ives, & Foster, 2013). A study of 86 young adult cancer survivors to increase physical activity over a 12-week period using Facebook FITNET reported great physical activity and weight loss compared to the Facebook self-help group ($p = 0.004$) (Valle, Tate, Mayer, Allicock, & Cai, 2013). Interestingly, both groups recommended the program.

Self-Esteem and Well-Being

Positive feedback of an adolescent's profile picture can enhance self-esteem and well-being (Gonzales & Hancock, 2011; Ziv & Kiasi, 2016). Gonzales and Hancock (2011) found the ability to selectively present oneself on social media may have positive influences on self-esteem. The depth of engagement with others on social media, not frequency or duration, is associated with a positive well-being. By offering an alternative route for communication, a virtual supportive

community can positively impact an adolescent's well-being, especially one who lacks social skills (Ziv & Kiasi, 2016).

Implications for Nurses

The daily life of an adolescent is enhanced with the thoughtful use of social media. Pediatric nurses can be a resource for families reaching out for information on how to construct family rules and guidelines for media use. Only 16% of pediatricians inquire about media usage in families (Reid Chassiakos et al., 2016).

The AAP defines screen time as the amount of time digital media is consumed for entertainment purposes. For children ages 6 years and older, the AAP recommends enforcing consistent limits on screen time to ensure media does not take the place of essential behaviors to health (Reid Chassiakos et al., 2016). The AAP published an interactive, online tool called the Family Media Use Plan to support these new recommendations. This tool contains a media time calculator to assist families in identifying adequate hours needed for school and homework time, physical activity, social contact, and sleep. After these events are calculated, the time that remains can be utilized as screen time (Reid Chassiakos et al., 2016).

Problematic and Risky Internet Use Screening Scale

The Problematic and Risky Internet Use Screening Scale (PRIUSS) is an 18-item validated screening tool to aid in identifying PIU in adolescents. It has a sensitivity of 0.8 and specificity of 0.79 (Jelenchick et al., 2015). Moreno, Arseniev-Koehler, and Selkie (2016) developed the PRIUSS-3 from the PRIUSS 18 as a short screening tool designed to fit into existing standard adolescent screenings. The sensitivity of the PRIUSS 3 is 100% but the specificity is 69%. If positive, the PRIUSS-18 is administered (Moreno et al., 2016). Nurses should contemplate screening for PIU with screening tools, such as PRIUSS (Jelenchick et al., 2015). The PRIUSS is freely available at http://mediad.publicbroadcasting.net/p/kplu/files/201502/PRIUSS_scale_and_guidelines.pdf

Education

Parental media usage is a significant indicator of their children's behaviors.

Table 2.
**Healthy Social Media Habits Education
for Adolescents and Families**

<ul style="list-style-type: none"> Develop a Family Media Use Plan with parents and teens using shared decision making. An example of family media contract can be found at https://www.healthychildren.org/English/media/Pages/default.aspx Use resources from the Department of Health and Human Services “Think, Act and Grow” Program to improve adolescent care.
<ul style="list-style-type: none"> Restrict social media during dinner, social gatherings, and in the bedroom.
<ul style="list-style-type: none"> Patients should consider contracting with adolescent to diminish behaviors that may interfere with optimal health, including social media and other forms of technology.
<ul style="list-style-type: none"> Encourage healthy sleep habits by limiting media use at bedtime.
<ul style="list-style-type: none"> Parents must also agree to limit their own use of technology to 2 hours per day.
<ul style="list-style-type: none"> Keep cell phone out of the bedroom and put the computer in a public part of the home.
<ul style="list-style-type: none"> Allow the family to determine how much privacy they want to give their child around Facebook and Instagram. For adolescents, parents may want to be a member of the adolescent’s Facebook friends. It is important to discuss concerns regarding social media and adolescents with parents and their child together.
<ul style="list-style-type: none"> Discuss cases of an adolescent getting in trouble due to social media use. The adolescent needs to be made aware of social media use, including sexting and cyberbullying
<ul style="list-style-type: none"> If a child is being cyberbullied, eliminate access to the platform where the abuse is occurring.
<ul style="list-style-type: none"> Encourage families to read about the negative effects of media use.
<ul style="list-style-type: none"> Do not use cell phone while walking or driving.

Table 3.
**Role of Nurses in Assisting Adolescents
Develop Healthy Social Media Habits**

<p>At well-child visit, ask two questions:</p> <ul style="list-style-type: none"> How much time do you spend using media? Is there a television or Internet-connected device in your bedroom?^a
<p>Ask adolescents about social media use and experiences:</p> <ul style="list-style-type: none"> Have you ever felt threatened or bullied by anyone online? Have you ever sent or received nude pictures? Do you ever feel sad or depressed while on social media?^b
<p>Take a more detailed history of adolescents with:</p> <ul style="list-style-type: none"> Obesity or overweight. History of aggression. Tobacco or substance use. Academic issues. Mental health concerns, such as anxiety or depression. Vulnerable adolescent populations.^a
<p>During sick visits:</p> <ul style="list-style-type: none"> If patient presents with hand, neck, or back problems, make sure you take a complete history of technology use, including computer use.^c
<p>Assist families in developing a Family Media Plan:</p> <ul style="list-style-type: none"> Consider screening for Problematic Internet Use by use of PRIUSS-18 tool.^a
<p>Encourage families to avoid the use of smart phone while walking or driving.^c</p>
<p>Work with schools and the community to encourage media education:</p> <ul style="list-style-type: none"> Support technology use in the classroom. Promote rules about what content can be accessed on devices in the classroom.^a

Sources:

- ^a Reid Chassiakos, Radesky, Christakis, Moreno, & Cross, 2016.
- ^b O’Keeffe & Clarke-Pearson, 2011.
- ^c O’keefe, 2016.

Heavy parental usage of cell phones correlates with fewer exchanges between parents and children (Radesky et al., 2014). Conversely, social media can provide positive social experiences between parents and their children by aiding in the connection with each other across long distances (AAP Council on Communication and Media, 2016).

Displaying ideal behaviors of the consumption and use of social media is a significant role for parents and caregivers. Pediatric nurses can enhance parent-adolescent interactions by

encouraging parents to evaluate their own use of digital media (Reid Chassiakos et al., 2016). Table 2 is a summary of the educational highlights to provide to families.

Role of the Nurse

Nurses have many opportunities to educate adolescents and families regarding possible consequences of social media and promote healthy social media behaviors. They can encourage the adoption of a Family Media Use Plan from the AAP or assist in the develop-

ment of their own agreement for appropriate media use and acceptable online behavior. The United States Department of Health and Human Services (DHHS) has developed a program for adolescent health called the Think, Act and Grow Program, which offers several resources for nurses and other healthcare providers. Table 3 is a summary of the nurse’s role in helping adolescents develop healthy social media use.

Case Resolution

The nurse used resources from DHHS and the AAP. The Family Media

Nurses are positioned to educate families, adolescents, and their communities about the complexities of social media.

Use Plan was developed using shared decision-making to limit Julie's entertainment screen time to 2 hours per day (including time spent on social media). The nurse also counseled the family on negative aspects of social media use. Julie agreed to assist her mother in creating a Facebook account to allow her mother access to what she posted online. At the 3-month follow-up visit, Ms. Smith reported that Julie no longer used her smartphone during family meals and felt more comfortable with her daughter's online activity now that she had access to her Facebook and Instagram accounts.

Conclusion

Although social media has the potential to have a positive impact on an adolescent's health and well-being, it also poses several potential risks. Nurses are positioned to educate families, adolescents, and their communities about the complexities of social media. Nurses can encourage families to create a Family Media Use Plan while supporting an open dialogue about appropriate online behavior. As social media has become a mainstay in adolescents' lives, nurses and members of the multidisciplinary team may develop a plan to address benefits and pitfalls of social media with adolescents.

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