Teens and social media during the COVID-19 pandemic:

Staying socially connected while physically distant

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Abstract

The COVID-19 pandemic has affected the health, safety, and daily lives of all individuals. Adolescents may be uniquely sensitive to this abrupt disruption in their lives due to the biological and psychological changes that occur during this developmental period. Social media has rapidly transformed the ways in which adolescents socialize and interact with one another, which has contributed to an ongoing debate about whether social media is helping or harming teens today. The COVID-19 pandemic has only magnified this societal dilemma as teens are spending more time than ever before on social media. Thus, it is important for parents, educators, and teens to better understand social media use in the context of COVID-19. This article discusses the implications of social media for adolescent development and mental health in the context of COVID-19, with attention to the ways in which social media may be especially helpful for teens in the midst of physical distancing practices, as well as how social media behaviors can negatively impact teens' physical and mental health during this time. Using research and theory, the article provides practical guidance on facilitating teens' helpful use of social media and mitigating its negative effects during the COVID-19 pandemic. As more people than ever before are relying on social media to maintain social connection and ward off social isolation, this article may be useful for people of all ages who aim to understand the benefits and drawbacks of social media use during the COVID-19 pandemic.

Keywords: adolescence, social media, COVID-19, pandemic, mental health

Public Significance Statement: Social media provides unique benefits for teens during the COVID-19 pandemic, including access to resources, social connection, and the ability to explore and express themselves. However, social media also can negatively affect teens' anxiety, mood, body image, and sleep, and can contribute to the spread of false information about coronavirus. Recognizing the nuanced ways in which teens are using social media is critical for promoting healthy social media use during the COVID-19 pandemic.

Teens and social media during the COVID-19 pandemic: Staying socially connected while physically distant

The COVID-19 pandemic has drastically impacted the lives of all individuals in American society and worldwide. Physical (or social) distancing— keeping space between oneself and other people outside of one’s home (Centers for Disease Control and Prevention, 2020)— has become the primary method for slowing the spread of coronavirus in almost all of the United States. While these physical distancing practices are essential to ensure the safety and health of the public, they also have taken a toll. Human beings are inherently a social species and social isolation has both physical and mental health consequences (Leigh-Hunt et al., 2017). Although individuals of all ages are experiencing the social and emotional challenges of physical distancing, adolescents may be particularly affected by the abrupt and prolonged disruption in their social lives. Teens may be uniquely equipped with the tools and skills to stay socially connected while remaining physically distant due to the widespread use of social media in this age group (Anderson & Jiang, 2018). However, a growing body of research also indicates that social media can have negative consequences for teens depending on how and when they use it. The pandemic has magnified this societal dilemma about whether social media is helpful or harmful for teens. Given that some form of physical distancing practices may be necessary for an extended period of time, it is essential for parents, educators, and teens to better understand social media in the context of the COVID-19 pandemic.

This article uses psychological theory and research to discuss the implications of social media for adolescent development in the context of COVID-19. It highlights the ways in which social media may be especially helpful for teens in the midst of physical distancing practices and accessing COVID-19 resources. It also addresses the ways in which social media use and

behaviors may negatively impact teens' safety, self-esteem, body image, anxiety, mood, and sleep. Finally, this article provides practical guidance and considerations for parents, educators, and healthcare providers on how to mitigate the negative effects of social media and promote teens' helpful use of social media during these challenging times. Notably, while existing empirical literature guides the conclusions and recommendations presented in this article, at the time of this writing, empirical studies have not yet been published on the specific role of the COVID-19 pandemic on teen social media use. Thus, many of the ideas expressed regarding COVID-specific experiences related to social media use require empirical investigation. As more people than ever before are relying on social media to maintain social connection and ward off social isolation, this article may be of practical use for people of all ages who are interested in the benefits and drawbacks of social media use during the COVID-19 pandemic.

What is unique about adolescence?

Adolescence is a time of significant and rapid biological, social, and psychological changes (Dahl et al., 2018). In this article, the terms “adolescents,” “teenagers,” and “teens” will be used interchangeably to refer to youth in the period of adolescence. The developmental phenomena discussed in this article are especially relevant for youth ages 10-18, corresponding roughly to the middle and high school years in the U.S. when most youth live with parents or other caregivers (rather than on their own or with peers or romantic partners).

The developmental period of adolescence is characterized by identity exploration, increasing autonomy from parents and reliance on peers, heightened sensation-seeking and risk-taking, and the initiation of romantic and sexual relationships (Dahl et al., 2018). Underlying each of these changes is a complex set of biopsychosocial changes. During adolescence, one of the most prominent changes is how and with whom youth spend their time. As youth transition

from childhood to adolescence, they spend increasing amounts of unsupervised time with peers (Lam et al., 2014) and peers become extremely important. For example, adolescents are highly attuned to peer status (e.g., the level of popularity of themselves and their peers) and peer norms (e.g., the behaviors and attitudes of peers), and they are likely to engage in behaviors that lead to social rewards such as increased popularity (Brechwald & Prinstein, 2011). Younger children rely more on their parents for behavioral decision making and sense of self, and many adults rely on romantic partners as primary attachment figures. In contrast, adolescents rely primarily on peers and their friends for their self-concept (Harter et al., 1996). While adolescents' intense focus on peers may seem extreme or baffling to parents, it has biological roots. Pubertal hormones and patterns of brain development contribute to adolescents' heightened sensitivity to social reward and social rejection (Scriber & Guyer, 2016), as well as youths' likelihood to engage in risk behavior in the presence of peers (Steinberg, 2008). Adolescence is also a period of heightened risk for the first onset and worsening of mental health problems, particularly for girls. Depression dramatically increases across adolescence, and by age 18, nearly 20% of adolescent girls report clinical depression (Hankin et al., 1998). Disordered eating also increases during adolescence, with higher rates of unhealthy weight-related behaviors reported by adolescent girls than by either children or adolescent boys (Holm-Denoma et al., 2014).

The COVID-19 pandemic has disrupted teens' social lives and normative developmental tasks in profound ways. Schools are now closed, extracurricular activities are canceled, and peer socializing has come to a halt, assuming families are adhering to Centers for Disease Control (CDC) recommendations and state mandates. While children and adults of all ages are experiencing feelings of loneliness during this time of physical distancing, the effects of being isolated from peers may be especially pronounced for teens (Laursen & Hartl, 2013). The

inability to see one's peers in school and other in-person contexts presents a developmental mismatch that is likely to affect adolescents' mood and overall wellbeing. Put simply, teens are now forced to remain physically isolated with their families during the developmental period when they are biologically and psychologically driven to be with peers. So how can teens cope with this new reality? Understandably, many are turning to social media, which can allow adolescents to remain socially connected while physically distant – and also presents unique challenges for teens and their parents.

What is social media and how does it affect adolescents' mental health?

Social media broadly refers to websites, apps, and electronic tools that allow for digital social interaction. Although the words “social media” may call to mind very specific images of teens scrolling through Instagram photos or sending selfies on Snapchat, social media can be many other things as well. YouTube – which allows users to post their own videos and comment on others' – is one of the most popular social media sites among teens today (Anderson & Jiang, 2018). Text messaging and messaging apps may also be considered social media, as can social gaming tools like Fortnite and Minecraft. Many of teens' favorite social media tools (e.g., Snapchat, Instagram) can be used for a multitude of purposes, including posting photos, sending individual messages, and video chatting with one or more friends. Social media possesses endless capabilities for teens to browse or stream content, as well as post and share their own.

Although “social media” can be many things, several basic features differentiate most social media from traditional, in-person interactions (Nesi et al., 2018a, 2018b). According to the transformation framework (Nesi et al., 2018a, 2018b), these features have critical implications for how teens interact online, and for the effects of these tools on teens' mental health. For example, compared to face-to-face conversations, social media tends to be more public, allowing

for simultaneous interactions with many people at once. This may allow a teen to join fun group chats with their closest friends, but also means that a large audience of peers is viewing (and commenting on) their every TikTok-inspired dance move. Social media is also more “quantifiable”: the things we do online are often characterized by numbers of likes, followers, and views. Seeing friends’ likes, views, and comments on their content may help teens feel connected, but may also increase vulnerability to “status-seeking” and peer influence during a period of heightened sensitivity to peer evaluation (Nesi & Prinstein, 2019; Sherman et al., 2018). Finally, social media tends to involve fewer “interpersonal cues” than in-person interactions, including tone of voice, facial expressions, and gestures. Without these cues, teens may feel emboldened by the distance of a screen: both to engage in healthy self-disclosure with friends (Valkenburg & Peter, 2007) and, alternatively, to create rude or hateful content (Suler, 2004). Of course, these features vary widely across social media; a video hangout or messaging directly with a friend is qualitatively different from scrolling through Instagram posts.

Yet prior research examining the effects of social media use on adolescent mental health has often collapsed across these various sites, tools, and activities, typically estimating associations between overall “screen time” and well-being. Not surprisingly, findings have been mixed (Odgers & Jensen, 2020). While many studies have found significant, albeit small, correlations between time on social media and higher levels of depression, body dissatisfaction, disordered eating, and health-risk behaviors (Holland & Tiggemann, 2016; Twenge & Campbell, 2018; Vannucci et al., 2020), others have found no such associations for screen time and mental health (e.g., Cohen et al., 2017; Jensen et al., 2019; Orben & Przybylski, 2019). Still others have found the opposite effect – that social media, particularly when used to facilitate direct social interactions with friends – can have a positive effect on teens’ mental health (e.g., Clarke et al.,

2018). A consensus is now emerging that, perhaps, the sheer amount of time youth spend on social media is less important than the specific behaviors in which they engage online. With the COVID-19 pandemic leaving most teens physically distanced from peers, many are turning to social media with increased frequency. Thus, it may be more important than ever to move beyond considerations of mere “screen time” to understand how, when, and for whom social media use results in positive or negative effects.

How might social media be helpful to adolescents during the COVID-19 pandemic?

In the midst of physical distancing practices and uncertainty about COVID-19, social media may offer teens a critical source of access to COVID-19 information and resources, as well as social connection, identity exploration and creative expression (Hamilton et al., In Press). For teens who are in an unhealthy or unsafe environment, social media may offer a critical lifeline to a supportive community and resources for understanding and coping with COVID.

Access to COVID-19 Resources. With the unprecedented events of a global pandemic, there is widespread uncertainty and fear. It is crucial that the public stay informed, engaged, and aware of the latest news, health recommendations, and resources for coping with COVID-19. Most importantly, people must adhere to the physical distancing practices advised by the CDC to ensure their effectiveness. However, following these recommendations may be particularly challenging for teens. Engaging in high-risk behavior is a normative part of adolescence (Steinberg, 2004), partially due to teens’ “personal fable” mindset: believing oneself to be uniquely invulnerable to risks (i.e., “this won’t happen to me”) (Buis & Thompson, 1989). This mindset is particularly dangerous in the context of COVID-19, as it may lead to teens’ perception that COVID-19 transmission will not affect them or their families. Further exacerbating this problem is that teens are less physically affected by the health consequences of COVID-19. This

perception of invincibility, combined with lower risks of severe COVID symptoms, could lead teens to engage in behavior that is unsafe for themselves, their families, and the general public.

Social media offers a unique opportunity to promote teens' health and safety in the era of COVID-19. Today, the majority of teens use social media to access news and health information (Anderson & Jiang, 2018). Short, steady streams of information are readily available on most social media sites, which can enhance access to and dissemination of accurate information. Many social media platforms have adopted strategies for promoting health information, including a COVID-19 Information Center available at the top of the screen on Facebook-owned apps (e.g., Facebook, Instagram, WhatsApp). Some social media apps also include tips on how to prevent the spread of the disease and answers to common questions. Further, when individuals search or hashtag "covid", social media apps feature reputable health organizations, such as the World Health Organization (WHO) or CDC, promoting access to accurate and reliable information.

Beyond access to basic *information* about COVID-19, social media may impact teens' *perceptions* of COVID-19 and physical distancing. One potentially effective strategy includes personal narratives of those affected by COVID-19. Sharing personal stories may make these experiences seem real, which is more effective in promoting positive health behaviors than citing statistics (Wickman et al., 2008). For example, frontline workers took to social media themselves with signs of "We stay here for you, so please stay home for us" to highlight the importance of physical distancing. Celebrities and influencers who are popular among teens have also shared their experiences with COVID-19, including demonstrating safe physical distancing practices and sharing their own positive diagnoses of COVID—showing that it *can* happen to anyone. Prior work has found celebrities to be a beneficial source of health information and health behavior promotion among teens (Calhoun & Gold, 2020). In addition to celebrities, teens can be

influenced by other teens through social media. Peers' perceptions of other teens' behaviors can influence both risky (Blakemore, 2018) and prosocial behaviors (Choukas-Bradley et al., 2015), and this influence has been demonstrated through social media specifically (Sherman et al., 2016). Thus, teens may influence one another to engage in healthy behaviors during COVID-19.

Social Connection. Peer relationships take on paramount importance during adolescence, as biological and social changes make teens particularly sensitive to peer feedback, status, and connection (Kilford et al., 2016; Schriber & Guyer, 2016). Adolescence is also the time period in which youth enter into their first romantic relationships, with these relationships offering important opportunities for development of social skills (e.g., conflict negotiation, assertion of needs) and sexual identities (Collins, 2003). Physical distancing practices may be particularly painful for teens, for whom engagement with friends, acquaintances, and romantic partners is essential to healthy development and wellbeing. Further, it is well-established that social isolation is associated with a range of negative health outcomes, including increased risk for depression and suicide (King & Merchant, 2008), and even poor physical health (Leigh-Hunt et al., 2017). Thus, as the COVID-19 pandemic disrupts teens' typical social experiences, from saying hi to peers in the school hallways, to gathering for parties at friends' houses, to attending prom and graduation, social media may offer invaluable opportunities for social connection.

Adolescents may connect with peers in a variety of ways using social media during the pandemic. They may simply browse their Instagram feeds, passively viewing friends' recent posts to remain "in the loop" on their peer groups' social activities. They may "slide up" on a "story," comment on a post, or send their friend a meme for an easy way to stay in touch. Teens can play an online game with friends, speaking over headsets or chat functions to stay in touch while saving the world or fighting zombies. They may videochat or text a friend, individually or

in a larger groupchat. Even if teens are not actively speaking with one another, they may spend hours on videochat with one another, simulating the experience of being in the same room.

Each of these social media options offers a range of potential benefits and drawbacks, based partially on their features or affordances (Nesi et al., 2018a). For example, passively browsing memes or TikTok videos may relieve boredom and provide entertainment, but, due to the lack of synchronous interaction and shared interpersonal cues, does not represent an intimate social interaction. Meeting up with a friend or romantic partner on Facetime, on the other hand, may more closely resemble an in-person interaction and provide stronger social connection. Some youth, particularly younger adolescents, might feel more comfortable with text-based communication (Anderson & Jiang, 2018), due to existing social norms and the increased time and space to formulate responses. This may offer the benefit of maintaining social connection, within a safer context. Importantly, most teens likely engage in many of these activities.

Prior research has identified numerous benefits of technology-facilitated social connection for teens (Anderson & Jiang, 2018; Hamilton et al., In Press), but these benefits may be further magnified during the COVID-19 crisis. By interacting with others outside the family context, teens can practice the autonomy and independence that are essential to their development. They can share their feelings about the crisis, receive support, and distract themselves from current stressors and challenges. Social media also can connect teens to resources in their local communities, and they can even feel part of a global community by participating in large-scale social media “challenges” (Taylor, 2020).

Identity Development and Self-Expression. Social media provides novel and unique outlets for many aspects of adolescent identity development, including experimentation with different interests, self-presentations, and creative expression (Davis & Weinstein, 2017). During

the COVID-19 pandemic, teens have limited opportunities to explore the world on their own terms. In many cases, teens are forced to remain in their homes and, consequently, under parental oversight. Social media affords teens the autonomy to explore and experiment with their identities in a space of their own, where they have control over what, how, and with whom they share information. During COVID-19, this independence may be especially needed.

Without school and extracurricular activities, many teens may have time available to explore new ideas and hobbies. Even prior to the COVID-19 pandemic, 1 in 4 teens report using social media as a creative outlet for sharing art, dance, song, and the written word across multiple platforms and modalities (e.g., written, audio, visual) (Anderson & Jiang, 2018). Sharing videos and ideas has become even easier with the rise of platforms like TikTok, where teens can create and post brief video clips, perhaps fostering creativity. Social media also can facilitate the development of intellectual ideas and activism, as teens become increasingly aware of the world and the way in which policies affect them. During national and worldwide crises such as school shootings and global warming, teens have increasingly used social media to develop and express their opinions and ideas. The social media audience may provide adolescents with social rewards for exploring and presenting new, civically-engaged identities, as well as for participating in social justice movements (Weinstein, 2014). The COVID-19 pandemic may fuel new ideas and perspectives about the world, with social media providing readily-accessible tools to share developing thoughts and experiment with new identities.

How might social media be harmful to adolescents during the COVID-19 pandemic?

Despite the potential benefits of social media for adolescents during COVID-19, there are many well-established risks of social media use as well. These may be exacerbated in the context

of the pandemic, with teens spending more unstructured time online, and facing increased exposure to content that may spread misinformation and impact mental health.

Fake News and Misinformation. One of the clearest ways that social media can harm teens is through the spread of misinformation and “fake news” about COVID-19. Given recent controversy around “fake news” in other high-stakes situations (e.g., elections, national crises), social media platforms are aware of this problem and attempting to tackle it by providing fact-checking links, sites, and/or people to verify potential rumors and report them (Table 1). However, this approach requires the user to initially question the accuracy of this information. Unfortunately, teens struggle to distinguish between “fake news” and accurate information (Breakstone et al., 2019). Additionally, false information can easily infiltrate teens’ social networks as friends report “click-bait” posts, a problem exacerbated due to the current situation: health information related to COVID-19 is evolving and recommendations are rapidly changing. Thus, teens may be vulnerable to believing and spreading misinformation related to COVID-19. Further, as peer influence is heightened during adolescence (Brechwald & Prinstein, 2011), images and videos shared by peers who are not practicing physical distancing may encourage teens to do the same. In addition, memes or posts that make light of COVID-19 may reduce teens’ adherence to the guidelines, with risks for teens, their families, and the general public.

Self-Presentation and Body Image. Self-presentational theories describe how individuals engage in impression management strategies to present themselves in the most positive light (Schlenker & Pontari, 2000). Teens are especially motivated to self-present in favorable ways, given the *imaginary audience* phenomenon, in which adolescents feel as if others are watching their every move (Zheng et al., 2019). Social media uniquely allows teens to carefully curate their self-presentation. For example, while adolescents are not seeing their peers

in school during the COVID-19 pandemic, they can still post self-presentational photos, videos, and text. Teens are especially attuned to self-presentation related to physical appearance; attractiveness is often central to adolescents' self-concept and self-worth, especially for girls (Thompson et al., 1999). Social media sites may exacerbate physical appearance concerns among adolescents due to the visualness of these media, the ability to carefully select and edit visual images, and the presence of an audience of peers who provide reinforcing feedback (Choukas-Bradley et al., 2020). Social media apps now allow for a broad range of editing techniques, including tools to change one's body shape on photos and touch up one's appearance in live videos. Teens also can engage in endless upward social comparison with the carefully curated and edited photos of peers, celebrities, and "influencers" (Fardouly et al., 2017). Many studies have demonstrated links between social media use – especially photo-focused behaviors – and body image dissatisfaction and disordered eating among adolescents and young adults (Holland & Tiggemann, 2016). Recent work suggests that teens may think about the "social media audience" even when offline, with implications for mental health (Choukas-Bradley et al., 2020).

During the COVID-19 pandemic, when almost all interpersonal interaction with peers occurs through social media, these appearance concerns may be further exacerbated for several reasons. First, if teens are spending more time on social media in the absence of in-person contact with peers, they also may be spending more time on self-presentational tactics, and the "social media self" may feel even more central to one's identity. Second, peers' curated and edited images may feel more real because in-person interactions cannot correct false self-presentations, perhaps leading to more upward social comparisons. Third, with a lack of structure or activities outside of the home, adolescents may find it difficult to disengage from self-presentational tactics, since any given moment provides an opportunity for curating one's social

media presence. The “social media audience” may lead teens, particularly girls, to feel pressured to engage in beauty rituals even when stuck at home with their parents. Finally, some teens may experience anxiety about limits to their typical routines for maintaining physical appearance, such as the inability to exercise or access professional services such as hair or nail salons.

Anxiety and Mood. Research on social media use prior to the COVID-19 crisis has often highlighted the potential negative implications for teens’ mental health (Odgers & Jensen, 2020). As many teens turn to social media in the midst of the pandemic, these general risks may be exacerbated. Further, as the content featured across social media sites is increasingly centered on the crisis itself, it raises new considerations for adolescents’ emotional well-being.

The risks of social media for negatively impacting adolescent mood and anxiety have been well-documented in prior literature (Twenge et al., 2018). As youth view carefully crafted images and videos of their peers, they may engage in negative social comparisons regarding lifestyles and material possessions. In turn, youth may feel increased pressure to present a certain image of themselves to live up to those portrayed by others (Yau & Reich, 2019) and to obtain online indicators of social status, such as likes and views (Nesi & Prinstein, 2019). Further, with more time online, youth may be more prone to encounter social stressors, such as peer conflict, “drama,” and even cyber-victimization, which are known to negatively impact mental health (Anderson & Jiang, 2018; Fisher et al., 2016; Underwood & Ehrenreich, 2017). With youth at home and spending even more time on their devices, the ability to escape these stressors may be further diminished. Youth also may also be more likely to come across inappropriate content, depicting, for example, peers engaging in risky behaviors (e.g., substance use, dangerous ‘stunts’) (Vannucci et al., 2020) or even self-injurious behaviors (Marchant et al., 2019). Finally, the phenomenon of Fear of Missing Out (FoMO), which often occurs via social media, is

associated with anxiety, loneliness, and depression (Przybylski et al., 2013). Youth may worry that, at any time, peers are engaged in rewarding social interactions without them on social media, prompting increased time online and pressure to respond to posts and messages.

Within the context of the COVID-19 pandemic, new stressors and fears related to social media use may arise as well. Much of the content adolescents view on social media during this time may be related to the COVID-19 pandemic. Content may contain references to the virus itself, photos and videos of others' physical distancing practices, updates on recent news, and descriptions of their peers' experiences with the pandemic. Much of this content may be scary, sad, or overwhelming. As teens spend more time passively scrolling through social media to relieve boredom, they may be coming across a barrage of this content, perhaps exacerbating anxieties, creating a sense of frustration and helplessness, and negatively impacting mood. Physical distancing practices also may prevent teens from gaining in-person social support to cope with these anxieties. Further, the need to rely on video tools for socialization may create new anxieties due to a lack of established social rules and comfort with these platforms, particularly for anxious teens.

Sleep and Circadian Rhythms. Sleep is critical for regulating emotions and stress (Palmer & Alfano, 2017) and healthy immune system functioning (Park et al., 2016), all of which are critical during the COVID-19 pandemic. With the onset of puberty, biological and psychosocial changes naturally shift bedtimes later across adolescence (Carskadon, 2011). During the school year, early start times often contribute to earlier awakening than teens' natural biological rhythms, thereby resulting in insufficient sleep. Healthy sleep duration for teens (13-18 years old) is 8-10 hours per night (Hirshkowitz et al., 2015), but the majority of teens get less than 7 hours of sleep during the school year. School closures resulting from COVID-19 may lead

teens to have later wake times, even if in virtual classes. Thus, it is possible that teens are now able to sleep during a time more consistent with their body's biological rhythms and have more opportunity for sleep. However, the absence of regular schedules may prevent teens from keeping consistent sleep routines, which is important for physical and mental health (Becker et al., 2017). Without a regular schedule, teens may also be more likely to sleep later in the morning and nap during the day. These behaviors can make it more challenging to fall asleep at night, thereby contributing to teens going to bed later than one's natural body rhythms.

Social media use is one key factor that can further disrupt sleep and circadian rhythms during the pandemic. With the absence of routines, fewer daily activities, more sedentary lifestyles, and increasing boredom, teens may spend more time using social media. Social media is usually accessed by teens on smartphones, typically held closely to their faces. Electronic devices emit blue light, which is a light wavelength associated with increased alertness and attention. Blue light also suppresses the release of melatonin, which is a sleep-promoting hormone naturally produced by the body in the evening hours. Using smartphones (and other electronic devices) more throughout the day and in the evening may increase alertness and delay sleepiness, thereby pushing bedtimes later (LeBourgeois et al., 2017). Given that teens are sensitive to social information (Schriber & Guyer, 2016), social media may also keep teens engaged late into the evening with cognitively and emotionally arousing social content (Scott & Woods, 2019). In this way, social media can both displace time when teens would otherwise be asleep, and disrupt their ability to fall or stay asleep. A large body of research indicates that teens who spend more time on social media, particularly in the 30-120 minutes before bedtime, have later bedtimes, a shorter amount of sleep, and poorer sleep quality (Carter et al., 2016; Scott & Woods, 2019). Simply having a smartphone in the bedroom, which is common among teens, and

nighttime smartphone use has been found to reduce sleep quality and impact overall mood and well-being (Vernon et al., 2018). Thus, the disruptions of COVID-19 may contribute to longer bouts of social media use during the day and night, disrupting sleep and the body's natural rhythms. Maintaining healthy sleep is especially critical to help teens cope with the psychological toll of the COVID-19 pandemic and physically stay healthy to fight infection.

Individual differences and vulnerabilities for teens' social media use during COVID-19

The effects of social media use depend on a number of factors specific to individual teens, such as their age, gender, personalities, and pre-existing emotional or mental health difficulties. Certain teens, such as those already experiencing low self-esteem, a tendency toward impulsive or risky decision-making, or symptoms of a mental illness, may be particularly vulnerable to the negative effects of social media (Valkenburg & Peter, 2013). For example, prior research indicates that teens with depression may use social media in a way that further exacerbates these problems (Radovic et al., 2017), and that those with a higher orientation toward social comparison are more likely to experience negative body image effects from social media (Kleemans et al., 2018). Thus, as teens spend more time on social media, those who are predisposed to seek out and react negatively to problematic content may encounter *more* of that content, thereby worsening mental health symptoms. In addition, teens who are prone to anxiety may be more likely to engage with or be affected by COVID-related news and information, contributing to panic or general worries about what might happen. At the same time, however, these teens may also benefit more from the positive aspects of social media use, including social connection (if anxiety or depression interferes with typical in-person socializing) and online support groups for coping with COVID-19 or with access to online mental health resources.

Further, many teens may themselves test positive for coronavirus, experience symptoms of COVID, or have loved ones who fall ill or die from the disease. Social media may provide coping resources and support for teens navigating the complex emotions of grief, loss, and trauma. Relatedly, teens who are immuno-compromised or have pre-existing medical conditions are more at risk for the negative effects of COVID-19. These teens may be even more socially isolated and anxious about COVID, and may find references to the virus on social media to be particularly overwhelming, scary, or frustrating. Yet social media also may provide these teens with a much-needed space to connect with peers or seek accurate COVID-related information.

While social media may be beneficial for many teens during COVID-19, it may be a “lifeline” for teens who are now isolated in unsafe or unhealthy environments and are in need of social support. For example, a large body of work documents that lesbian, gay, bisexual, transgender, and queer (LGBTQ) youth are at heightened risk for mental health concerns, especially if they are rejected by their families or experience abuse (see Choukas-Bradley & Thoma, In press). These concerns may be exacerbated during the COVID-19 pandemic, when some LGBTQ teens are living in close quarters with families in high-conflict situations, and with no natural escape to school, work, or time with peers. In these challenging times, it is possible that social media offers teens an opportunity to seek social support from online communities.

Finally, it is important to note that the potential social, psychological, and financial stressors associated with COVID-19, as well as adolescents’ access to and use of social media during this time, are largely affected by families’ socioeconomic status. Adolescents from economically disadvantaged households are more likely to experience negative effects from social media (George et al., 2020), and to engage in more unstructured and unsupervised screen time (Mascheroni & Ólafsson, 2014), particularly if parents work in essential fields. At the same

time, physical distancing measures may be more burdensome for families with fewer resources, who may live in smaller spaces, unsafe neighborhoods, or crowded conditions. These youth may thus rely even more heavily on social media to meet basic needs for social connection and autonomy. As the economic fallout of the pandemic disproportionately affects lower income families, these disparities may be even further magnified in the wake of COVID-19.

How can adults facilitate teens’ healthy social media use during the COVID-19 pandemic?

In the context of COVID-19, it is important for parents, educators, and healthcare providers to understand the potential benefits and consequences of social media use for teens. Table 1 includes practical tips and guidance for navigating social media use during COVID-19. Given that every teen and family has unique circumstances, these suggestions are designed to facilitate and encourage dialogue about teens’ social media experiences during this time.

Be open to learning about social media use. To better understand how teens are using and affected by social media, adults should remain open to the complexity of social media engagement. Social media is not one type of application, activity, or behavior, and the use and impact of social media may vary within and across days. If adults are open to exploring the complexity of social media and the ways teens use it, this can facilitate greater understanding of each teen’s specific experiences. It is important not to oversimplify social media by falling prey to the belief that it is unilaterally “helpful” or “harmful” for teens. Remain open to the possibility that social media is both helpful *and* harmful for teens in some ways and at different times.

Engage teens in conversation. Adults can learn from teens with a “bottom-up” approach, assuming that teens are the experts on their own social media use. Thus, adults should engage in conversation with teens about how they use social media for different purposes and encourage them to reflect on how it makes them feel at different times (e.g., lonely, sad, scared,

ugly, connected, happy, creative, supported). Parents and educators can help teens understand their own limits and feelings about their social media behaviors and patterns. For instance, they can help teens recognize when excessive social media browsing leads to feelings of anxiety or sadness (e.g., reading COVID-19 news), or when certain applications may be used for boredom versus creative expression. Adults can also encourage teens to explore the social media patterns that lead to feelings of connection with peers, versus behaviors that are motivated by social comparison or status-seeking, which may affect mood negatively. Given that social media is rapidly evolving, these should be ongoing conversations. Such conversations may help teens “feel like the expert,” and allow them to discuss new insights and challenges over time.

Be flexible *and* have limits. Prior research on parenting adolescents’ media use suggests that a combination of “active mediation” and “restrictive mediation” approaches may be beneficial (Collier et al., 2016; Livingstone & Helsper, 2008). Active mediation refers to ongoing conversations and engagement between parents and teens around appropriate use and safety measures, while restrictive mediation refers to rules and limit-setting around the types of content youth can access, times of day they can use social media, or who they can talk to online (Valkenburg et al., 1999). While there are, of course, many other important strategies for managing teens’ social media use (e.g., monitoring, supervision, co-use of media (Nikken, 2017), keeping in mind a general framework of open communication combined with appropriate limit-setting may be beneficial for many parents. This is particularly true when active and restrictive mediation strategies are implemented using a warm and supportive style, and when presented in a way that encourages teens’ autonomy (Valkenburg et al., 2013).

With more unstructured time, teens may use social media more than before. Given the unique benefits of social media, this is not surprising. Although every family has their own rules

and structures, punishing a teen by taking away their phone during the COVID-19 pandemic may have more significant consequences than intended, particularly if it is a “lifeline” for a more vulnerable teen or one struggling with depression. It is important to note that more screen time and social media use (if used adaptively) during the pandemic will likely not result in substantial immediate or long-term health consequences for most teens. However, as much as possible, it is important for parents to continue to enforce rules around “screen time” and social media use. For instance, if before the pandemic, a teen was not permitted to use social media during certain times of day or night, it is important to maintain these rules. Providing guidance on appropriate times for social media use will provide teens with natural breaks from their devices and allow for other activities that are still possible during the pandemic (e.g., reading, writing, exercise, offline games). Thus, while more social media use is expected, it should not be the *only* thing that teens are doing during the pandemic. Further, social media use late at night in bed may disrupt teens’ sleep and daily rhythms, which are likely affected by COVID-19 already. Thus, maintaining consistent schedules for bed and wake times, as well as limiting social media use in the 30 minutes before bed (at a minimum), may be particularly important for promoting healthy sleep.

Promote accurate COVID-19 information and resources. Parents should encourage teens to look up social media pages for COVID-related facts and resources on trusted sites, such as WHO and CDC. As teens come across information on their social media networks, parents can encourage them to become active and critical readers. Specifically, teens should be encouraged to pause when reading about COVID-19 and question the accuracy and source of the information. Not only will this promote critical thinking skills, but it will also help teens become informed about COVID-19 and break the cycle of sharing potentially dangerous misinformation.

Be a role model for social media use. While teens are often the focus of the social media public dilemma on the use and impact of social media, adults also are regular consumers of social media. As of 2019, nearly 70% of adults in the U.S. use Facebook and over 50% log into Facebook several times per day (Perrin & Anderson, 2020). Thus, parents may also consider how and when they engage with social media, and how their use is perceived by teens. As the lives of most adults are also affected by the disruptions of COVID-19, it is important for parents and educators to similarly be mindful of their own social media patterns and behaviors.

Conclusions

The COVID-19 pandemic presents unique challenges for people in the U.S. and worldwide. Social media provides essential tools for teens' access to COVID-related resources, autonomy and identity exploration, creative expression, and social connection. Adolescence is a developmental stage in which these tasks are particularly important. Thus, it is important to recognize the critical role that social media may have for teens during physical distancing practices that may limit growth in these areas. At the same time, it is also critical that parents and educators are aware of the potential ways in which social media may exacerbate pre-existing vulnerabilities or contribute to depression, anxiety, body image, and poor sleep. Using research and theory, this article sets forth general guidance and suggestions for navigating social media use with teens during the pandemic. However, while teens are the focus of this article, many of the benefits and consequences of social media use may apply more broadly to the general public. With this in mind, adults and teens are encouraged to be mindful about how and when social media use is affecting them, and to engage in health-promoting social media use to stay socially connected while remaining physically distancing during the COVID-19 pandemic.

Table 1. Key considerations for parents and educators on teens’ social media use during the COVID-19 pandemic

Domain	Key Considerations	Tips for Parents
Peers and Socialization	<ul style="list-style-type: none"> • What platforms are youth using to interact with their peers? • How much time are youth spending passively scrolling versus directly interacting? • What features are available within the social media tools they are using? 	<ul style="list-style-type: none"> • Encourage teens to practice using those platforms that more closely resemble in-person interactions (e.g., Facetime, Zoom), in order to promote social connection • Coach teens in online social skills and appropriate use of social media
Physical Health	<ul style="list-style-type: none"> • How much time are teens spending on social media? • At what times of day are teens spending time on social media? 	<ul style="list-style-type: none"> • Help teens set up routines, especially around bed and wake times • Set limits on time spent, recognizing that more screen time and greater flexibility may be needed • Keep or establish rules around “bedtime” screen time, prioritizing restricting use during the 30-60 minutes before bedtime
Self-Esteem, Body Image, and Mood	<ul style="list-style-type: none"> • What social media activities do teens find make them feel good, and which do not? 	<ul style="list-style-type: none"> • Engage teens in discussion about the pros and cons of social media use • Encourage teens to use social media “mindfully,” paying attention to personal risks and benefits • Seek support from a professional for serious concerns about teens’ mental health (effectivechildtherapy.org)
Resources and Information	<ul style="list-style-type: none"> • Where are teens reading or learning information about COVID-19, and are these sources accurate? • Are teens accessing helpful resources for managing emotions related to COVID-19? 	<ul style="list-style-type: none"> • Direct teen to trusted information sources (e.g., WHO, CDC) and resources for managing stress (e.g., COVIDCoach app, meditation apps like Headspace and Calm) • Help teens evaluate the accuracy of information they come across online • Fact check information and report rumors (fac.whatsapp.com; https://bit.ly/3ahGFDq) • www.nimh.nih.gov/health/education-awareness/shareable-resources-on-coping-with-covid-19.shtml
Overall	<ul style="list-style-type: none"> • How can parents best support teens in the COVID-19 pandemic, particularly in regard to social media use? 	<ul style="list-style-type: none"> • Be a role model with how, why, and when to use social media. • Be forgiving of yourself and your teen during this time • Take advantage of social media’s benefits together with teens • Check out tip sheets for parents at www.commonssensemedia.org • Consider creating a Family Media Use Plan at www.healthychildren.org

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