PSYCHCEs

Social Media and Mental Health

Introduction

Social media has been shown to have positive and negative impacts on overall mental health. While many individuals can feel more connected and informed with social media use, others, particularly younger people, may experience feelings of anxiety, loneliness, and depression that are linked to social media usage. Since it is abundantly clear that social media is not going away any time soon, an important consideration is to be able to set appropriate boundaries with its use and decrease the damaging effects it can have.

What is social media?

Social media can encompass a variety of internet-based networks that allow users to interact with each other, and to share information, ideas, and personal messages via writing, verbally, or visually (both by photographs and videos). At least 92% of teenagers are active on social media, with 13-17 years old having the highest rate of use (Keles et al., 2019).

People use social media to connect with others, receive new content, share information, and entertain themselves. Younger people tend to use social media for pleasure, identity formation, to maintain interpersonal connections, and for social enhancement (elevating offline social status through online interactions) (Bekalu et al., 2019)

Approximately one-third of the world's population, or two billion people, use social media to connect with others across geographic, cultural, and economic boundaries. Social media platform users are impacted by demographics of age, sex, education, and marital status. (Statistica, 2022).

In the past decade, social media use has become a prominent leisure activity among people of all ages. The preferences and popularity of different social media platforms change regularly and, at times, rapidly. Some examples of different social media platforms include:

Facebook: An online social media and social networking service where users create a profile and can then post text, photos, or videos to share with others who are in their friend group (or share publicly depending on privacy settings). Users can also communicate directly with each other privately through Facebook Messenger. In addition, users can join groups based on their interests. It is the most popular social network in the world and its social media service also owns WhatsApp & Instagram.

There are over 100 million Facebook users in the United States or 68% of the adult population.

Twitter: This online social networking service allows users to send 280-character messages. Users can read and post tweets and follow others, creating their own feeds. There are approximately 80.9 million active Twitter users in the United States.

Instagram: Is a photo-sharing social networking app. Users take pictures or videos which can be edited using platform-specific digital filters. There are 1.2 billion Instagram users worldwide and 120 million in the United States.

Snapchat: This is a mobile photo and messaging app with the goal of sharing impermanent photos via private message. The user can specify the amount of time "snaps" can be viewed before being no longer available for viewing. There are also video and story elements on Snapchat.

TikTok: This is a video-sharing social media app. The largest group of users on the platform are in the United States, with 136.5 million users.

WhatsApp: This instant messaging service is the most popular mobile messenger app worldwide, with two billion monthly active users, 79.6 million of those in the United States. It is a cheaper alternative to text messaging compared to carrier-billed SMS text messaging, especially for international messaging. Users can share text, images, video, voice messages, and voice and video calls.

YouTube: While it began as an amateur video platform, it is now the largest online video platform in the world. It has a wide range of videos from corporations to user-created content that covers topics from music, gaming, DIY, and educational clips. The United States has 247 million YouTube viewers, 73% of the adult population in the United States use YouTube.

Pinterest: This is an image-oriented social media platform that allows users to discover and save images (aka pins) to their personalized pinboards. It can also be used as a search engine for images. It is popular for recipes, DIY, fashion, and lifestyle.

LinkedIn: This is a social networking site for business professionals. It enables business connections and promotes industry contacts. It is one of the largest platforms for job seekers, employers, and recruiters. There are approximately 169 million users in the United States. (statista.com, 2022)

How an individual engages with social media determines positive versus negative mental health outcomes. This includes which platforms individuals use, with whom they interact and for what purpose. For example, spending time on image based platforms such as Snapchat and Instagram is associated with decreased loneliness, possibly due to an enhanced sense of intimacy through images, as this characteristic was not seen in text-based platforms such as Twitter. This benefit of decreased loneliness appears to apply to those who use the image-sharing platform to interact with other people, as those who only used it to post content reported increased loneliness. Specifically, it appears that those who use image-based platforms to interact with people they know personally are not generally at risk for negative consequences. In contrast, those who view and interact with image-based content from strangers are more likely to engage in negative social comparisons and have depressive symptoms. Further impacts come from the quality of online interactions that determine positive or negative mental health outcomes. Examples of this would be negative interactions such as cyberbullying and the detrimental outcomes that it has on mental health and self-esteem. In contrast, affirmative online interactions are linked to increased self-esteem, positive mental health, and decreased anxiety and depression. Meaningful social connections offer a range of benefits to a person's well-being (Scott & Woods, 2019).

Positive Impacts

Education

Greenhow et al. (2019) identified three opportunities for student learning via social media.

Active Learning: Social media requires students to use higher order thinking to critically evaluate the content, make connections to their prior knowledge, and take control of and reflect on metacognitive strategies. The best pedagogical practices all utilize active learning. Using social media in teaching can increase students' motivation and engagement. In one study, teachers reported an increase in high school students' interest in writing and an improvement in self-confidence among struggling students.

Collaborations: Collaboration is a skill students need for future workforce success, and utilizing social media can assist in cooperative skills, including problem solving and completion of complex thinking and tasks. One example of this is students engaging in environmental debates on a Facebook group created for informal science learning.

Community Connection: Through social media use, students can learn individual responsibility within a global, digital society. They can establish safe spaces to explore identities, share, and even risk making mistakes. It encourages them to expand their perspectives and express themselves. One example is using social media to expand language learning in a low-stakes setting.

Social media use can also benefit teachers. It may allow them to expand their professional learning outside the confines of the geographic location. Additionally, it allows them to exchange resources with other teachers, giving them access to a vast expanse of content to improve their teaching practices and strategies. Social media can also help address teacher isolation (due to physical or psychological separation from a supportive network) which can lead to decreased motivation, feelings of loneliness, and eventual burnout. Using social media platforms allows teachers to access personalized content to meet their individualized needs for their teaching curriculum (Greenhow et al., 2019).

This does not necessarily take into consideration the vast learning opportunities people seek out independently through social media. This may include searching for answers, being exposed to new opinions and ideas, and learning new skills through YouTube videos, for example.

Social Well-being

Social well-being is the assessment of one's standing and functioning in society and is strongly linked to age, education, and income. It often decreases with age due to functional limitations and increased isolation. Social well-being is multidimensional and is shaped by one's social network and social capital. Social media can be useful in complementing or, at times substituting, reduced face-to-face interactions. Examples of this may be older persons in nursing homes or a person in rehab that has limited interactions with outside communities using social media to stay connected with family and friends or even meeting new online friends with similar interests. This could also be for people of all ages who live in rural communities with limited social interactions or events (Bekalu et al., 2019)

Positive Mental Health

Naslund et al. (2020) found that those with mental disorders (from depression to schizophrenia) use social media at similar rates to the general population, and they can

benefit from its use in a number of key areas. While researchers acknowledge that social media does have its drawbacks, the positives seem to outweigh the negatives. They found three key areas of beneficial features of social media for those experiencing mental illness, including:

Facilitating Social Interaction: Social media can offer almost continuous opportunities to connect with others no matter the time of day or location. The anonymous nature of social media can help those with stigmatized conditions connect with others. Online interaction may be easier than face-to-face interaction for those with impaired social functioning or depressive symptoms. Online interactions help those with mental disorders find others experiencing similar concerns and it may help to ease their fears by having more access to more information and support. It has also been found that those with serious mental illness who use social media frequently had greater community participation (these included activities such as work, shopping, religious participation, visiting friends and family, and voting in elections).

Accessing Peer Support Networks: Those with mental disorders can build new relationships, maintain existing relationships or reconnect with people, all of which reduce isolation and feelings of loneliness. Through online peer interactions, individuals can provide information, discuss symptoms and medications, share experiences and coping strategies, facilitate self-disclosure and provide hope. Peers may offer different types of encouragement and assistance, such as informational support - about medications or mental health providers, esteem support - involving positive comments for encouragement, network support - for sharing similar experiences, and emotional support - to express understanding of a peer's situation and offer hope or build confidence.

Promote Engagement and Retention in Services: Those struggling can connect with mental health providers, including evidence-based interventions. Online peer support has been shown to improve client engagement and compliance with interventions. Apps have the potential to offer support, monitor symptoms, prevent relapse, and support users set goals. Social media can also offer support to caregivers of those with mental disorders (Naslund et al., 2020).

Positive Physical Health

Social media is used for a wide variety of physical health needs. For good or bad, social media was a primary source of COVID-19 information for many people. It is used by 80%

of cancer patients to connect with peers. And more than 80% of health departments in the United States have social media accounts to disseminate information. Social media has been used for health interventions, health campaigns, medical education, disease outbreak surveillance, and health promotion and behavior change.

Health institutions can use social media for the following (Chen & Wang, 2021):

Infoveillance: This refers to surveilling and analyzing the unstructured information available on the internet in order to inform public health and public policy.

- Social media data have been analyzed to predict the future illness onset for individual users. For example, the language used in users' posts, such as life stress and anxiety, can predict future occurrences of mental illness and distinguish different types of mental illness. In addition, special characters used in social media posts such as emojis can also help identify illness syndromes such as asthma and difficulty breathing syndrome. The use of social media to detect individual illnesses is especially beneficial for people who are at risk but less motivated to seek diagnosis and treatment; social media surveillance can supplement the traditional doctor-patient interaction method for illness detection and can be combined with social media–based interventions to proactively provide health advice to those who are less likely to seek help.

- Social media data can be analyzed to predict infectious disease outbreaks among a population, such as in the COVID-19 outbreak. The studies showed that social media data can provide an accurate prediction of disease outbreak case count. In addition to outbreak prediction, demographic and geographic data obtained from social media can inform medical research and practice of the characteristics of people who are at risk of being infected. Consistent with a recent systematic review of social media–based surveillance systems for health care, this study found that Twitter was the most used social media platform for individual illness and disease outbreak surveillance.

- User-generated social media posts can provide insights into the public's cognitive and behavioral responses to health-related issues. Studies have analyzed social media posts to understand public concerns and sentiments about ongoing disease outbreaks such as Zika and COVID-19, investigated public attitudes toward and actual implementation of recommended disease prevention actions, monitored public discussion about controversial health topics such as vaccination and e-cigarettes, and gauged public support of health-related policies. Assessing

social media data to understand public responses to health issues not only yields results comparable to national survey data but also provides insights for health-related theoretical models. More importantly, traditional public surveys may take weeks and are expensive, while social media provides real-time and inexpensive data to evaluate the effectiveness of public health communication, which allows communication practitioners to adapt timely communication strategies to public needs.

Disseminate Health Information and Combat Misinformation

With the ability to disseminate information quickly and widely, social media can be used by health institutions to post health information and share information with the public. Health institutions can inform the public about common wellness topics such as healthy living, immunization, and smoking hazards; communicate the risk of disease outbreaks; quickly provide instructions about prevention behaviors to a broad audience during disease outbreaks, and share the latest news and inform the public of the government's handling of disease outbreaks.

Social media has several advantages over other media outlets when used for disseminating health information. First, social media is seen as the fastest among available channels to share alerts and updates about disease outbreaks. Second, social media allows leveraging various media forms to engage the public. For example, by integrating hyperlinks, social media posts can direct the public to other online resources for additional health information. Health institutions can also share podcast audio and YouTube videos on various social media platforms to deliver health information. Third, social media can provide a communication platform for stakeholders during disease outbreaks. Government social media accounts may become official information sources that provide content about disease outbreaks for local agencies and journalists in a timely manner.

Example: There was a significant volume of misinformation surrounding the COVID-19 pandemic. Health institutions were encouraged to increase efforts to monitor and enforce fact-checking on questionable social media posts, refute misinformation on social media, share information to refute rumors, and redirect users to reliable information sources for their questions.

Health Intervention

Social media has been widely integrated into health interventions and can perform multiple functions. First, social media was used to offer health resources, including

delivering health information to audiences, motivating participation in health-related events, and directing campaign audiences and intervention participants to other health resources. Second, social media was used to support interaction with audiences, including engaging campaign audiences in 2-way communication with the institutions and health professionals and providing platforms for peer support group discussion. Third, social media was used to motivate health behavior change; intervention participants used social media to document and share their own progress of health behavior change, such as uploading a picture of an everyday healthy meal and sharing virtual awards of weekly achievement in physical activities, setting group challenges toward health goals, and engaging in health behavior competition with peers. Last, at the preparing stage of an intervention, social media was also used to reach broader and more varied populations, including hard-to-reach populations.

In general, empirical evidence shows that integrating social media in health interventions is accepted by target populations and effective in increasing health knowledge, reducing risky behaviors, and adopting healthy behaviors. Researchers have also discussed challenges and raised concerns regarding social media–based health intervention; for example, researchers must rigorously evaluate social media–based interventions throughout the stages of development and implementation, involve populations experiencing health disparities in the studies, and address privacy concerns.

Social Mobilization

Since social media can reach varied stakeholders and a wide audience in society, nongovernmental health organizations can use such platforms to mobilize social resources. Studies found that these organizations leveraged social media to advocate for change in public policies related to health issues such as HIV/AIDS and mental health, raise funds for individual medical care and health-related research, and raise awareness and promote actions to address health problems such as medical equipment shortages.

Researchers and Health Practitioners can use social media for the following three key areas (Chen & Wang, 2021):

Facilitate Health-Related Research

Social media can facilitate health-related research in two ways, by providing additional data to learn about patients' disease experiences and recruiting research participants. By analyzing patients' conversations on social media, researchers can gauge patients' understanding of the disease and their coping strategies, identify their concerns about the disease, understand their barriers to health behavior change, identify symptoms

related to the disease, and assess patients' experience after recovery. Because patient self-reported illness experience is not routinely reported to and recorded by physicians, analyzing patient discussions on social media may enhance health researchers' and professionals' understanding of patient experiences beyond what can be learned from traditional sources of health data. Additionally, social media can help researchers recruit participants for health-related research. Studies found that social media performs as well as or even better than traditional recruiting methods in terms of cost and number of participants enrolled. Social media is also useful in recruiting hard-to-reach populations such as immigrants. Social media recruitment can generate a representative sample; a study comparing a social media–recruited sample with the underlying population found that the sample was representative in 8 of the 13 characteristics studied, including demographics and health-related factors.

Professional Development

Health professionals and researchers may use social media for their own professional development, such as learning, collaboration, and career advancement. Social media can be used for collaborating on research projects and practices, accessing and sharing trending research findings and medical knowledge, broadening exposure to funders and publishers, conducting a job search, following medical conferences remotely, marketing professional health teams and services, and discussing interesting or difficult cases with colleagues.

Facilitate Doctor-Patient Communication and Offline Health Services

Health professionals use social media for doctor-patient communication, including responding to questions posted by patients, offering online consultations, and proactively providing advice and health information to social media followers. In addition, social media can be used to support offline health services. Health professionals can use social media to inform patients of the results of their examination, encourage compliance with medication, receive feedback from patients about their health services, and collect information from patients after discharge to inform future practices. Encouraging interactions between health practitioners and patients on social media may benefit both patients' well-being and patient-physician relationships. In addition, social media can also be used to provide medical services such as appointments, medical inquiries, personal information management, and medical charge payment, which can increase the accessibility of medical care and improve patient experiences. However, the increasing use of social media by health professionals and researchers is accompanied by concerns and challenges. Many studies raised

concerns about risks to patients' privacy and confidentiality and health professionals lacking knowledge about social media. Studies also discussed challenges such as protecting content generators' intellectual property and managing negative comments from patients. Most of these articles called for developing a guideline or a regulation regarding ethical, legal, and technological issues and providing training for health professionals and researchers on the proper use of social media.

The public can use social media for the following health purposes (Chen & Wang, 2021):

Seek and Share Health-Related Information

Seeking and sharing health information is the most common use by the public. Individuals use social media to follow and share news about trending health issues such as flu and COVID-19, find information on daily health behaviors such as fitness and healthy food choices, search for health advice for their own health concern such as pregnancy-related information, request a crowd diagnosis or second opinion after seeing a health care professional about their illness, access health care law, follow social media accounts of health organizations and professionals, and learn about physicians and hospitals to inform their choices. Social media has become a primary information source for the public with varying information needs. However, there is a concern about the level of quality and impact of social media health information, as there continues to be a high amount of misinformation regarding health concerns on these platforms.

Exchange Social Support in Online Communities

Social support includes informational support, emotional support, esteem support, network support, and tangible support. Informational support may include content such as reading about the experience of others diagnosed with the same illness, sharing details of one's medication and diagnosis, sharing and accessing medical knowledge such as treatment options and self-care activities, learning about health laws, and soliciting recommendations of doctors and hospitals. Individuals may also proactively request health information and advice and validate health information with others. Considered as one category, emotional and esteem support are expressions that convey love and caring (emotional support), and respect and confidence in ability (esteem support). People with health concerns may express their disease feelings to mitigate their stress and appeal for sympathy, offer hope and a sense of empowerment to each other, and encourage peers' engagement in medical care. Network support includes expressions that communicate belonging to a group of people who have the same concerns or interests: individual users use social media to build community with people

who have similar health concerns or health goals, foster a group identity, enhance a sense of belonging, achieve shared health goals together, get connected with peer patients, and get involved in social events such as swimming lessons with peers. Network support also empowered people with health concerns to influence health awareness at the societal level, such as raising awareness of queer and trans issues.

People with health concerns can benefit from online communities due to the fact that they do not have to reveal their personal identities and thus are free from the risk of being stigmatized when participating in online communities. Second, online communities as an information channel supplement offline communication channels in terms of content and time. Peers may provide more information on treatment options not raised by health professionals because of time constraints. Also, people can get answers and emotional support from online communities 24/7, while other social networks may not be able to provide such timely support. Third, people have a sense of control over the help-seeking process when participating in online communities, which may fulfill patients' need for autonomy and reduce treatment avoidance. Last, engaging in online communities may benefit health outcomes; studies found that perceived social support predicted subjective well-being.

Track and Share Health Statuses or Activities

Social media enables users to track and share their health statuses or activities and view those of others in the community. The public can document and share their illness experiences, such as a breast cancer journey or experience with chronic disease, achievements in health behavior change, and fitness activities such as cycling and walking. By self-tracking and sharing their physical activities, users can build networks with other users and discuss their activity performances. Writing about and sharing their illness experiences may help patients cope with illness and achieve health goals. Other users may also benefit from such sharing as they can easily find peers who have a similar experience to get advice on lifestyle changes and discuss treatment options (Chen & Wang, 2021).

LGBTQ+

Lesbian, gay, bisexual, trans, queer, and other sexual or gender minorities report significant benefits from social media use. It can serve as an informal learning environment for the identity development process. LGBTQ+ identities continue to be stigmatized in a number of communities. Social media networks allow opportunities to

explore and practice disclosing, control social interactions, and access identity-specific resources. Research has found that even passive involvement, such as watching LGBTQ+ specific content, allows individuals to learn about identity-specific issues, acquire inspiration for their own coming out process, and increase their identity confidence. The anonymity of the internet also allows for people to develop and explore their identities in ways that may not be possible in their real-life communities. Social media may allow LGBTQ+ people to access emotional and social support they may not have offline (Craig et al., 2021).

Overall, social media allows LGBTQ+ youth to explore their identities and social relationships, access resources, and curate their own mode of self-expression while controlling their degree of self-disclosure. In these ways, social media enhances well-being (Craig et al., 2021).

Craig et al. (2021) developed a Social Media Benefits Scale specifically for assessing LGBTQ+ youth well-being as it related to social media use. They developed a 17-item benefits list through a literature review of important benefits and from an LGBTQ+ youth advisory board of youth from the United States and Canada. The developers acknowledge they were specifically looking for benefits for social media use by LGBTQ+ youth and did not explore the negative aspects such as potential cyberbullying. LGBTQ+ youth respondents were given an exhaustive list of social media platforms and asked to pick their top five. They were then asked to answer a 17-item yes or no questionnaire regarding their reasons for using their chosen platform and the benefits of using their favorite platforms. The individuals' combined scores for each item across all five platforms were then summed, giving a score of 0-5 for each of the 17 questions. 0 would indicate that the respondent did not use any of their five favorite sites for that benefit item, while a five would indicate they used all five of their favorite sites for that benefit item. A higher score would indicate a more important use of social media for that particular benefit. While the scale was specifically developed for LGBTQ+ youth, the researchers propose it could be successfully modified for other marginalized groups who seek safety and support online or expand to LGBTQ+ adults who may use social media for similar purposes. See Appendix C.

Negative Impacts

Depression, anxiety, and loneliness have all been linked to social media use. Those who use social media frequently report lower happiness and higher rates of depression. The

negative impacts of social media use, as discussed below, have been collectively dubbed the "dark side" of social media.

Addictive

Social media apps are designed to function in similar ways to slot machines. When the outcome is unpredictable, one is more likely to repeat the behavior. The potential future reward keeps the person frequently checking the app. Not knowing who will engage with a photo or post, when they will engage, or how many likes or comments one will receive encourages the user to keep going back to the view the post. Thus, the unknown outcome and the possibility of the desired outcome can keep users engaged with the sites. When individuals open their social media apps, they don't know what content they are going to see, and this spontaneous feed or timeline gives a feeling of reward through the body by releasing dopamine. Dopamine is the feel-good chemical that is released with other pleasurable activities such as food, sex, and social interactions (McLean, 2022).

Terms such as social media addiction, problematic social media use, and compulsive social media use are used interchangeably to refer to the phenomenon of maladaptive social media use characterized by either addiction-like symptoms and/or reduced self-regulation. Overuse of social media is associated with low work performance, less healthy social relationships, sleep problems, lowered life satisfaction, and feelings of jealousy, anxiety, and depression (Sun & Zhang, 2021).

Social Media addiction is when individuals have a compulsion to use a platform to excess. They are often overly concerned about social media and have an uncontrollable need to log on and use social media. Social media addiction symptoms can impact mood, cognition, physical and emotional reactions, interpersonal relationships, and psychological problems. It is estimated that 12% of social media users have an addiction (Hou et al., 2019).

It is important to note that frequent social media usage does not necessarily indicate an addiction and does not always have a negative impact on mental health or academic performance. The main difference between normal social media usage, which at times may become over-involvement, and addiction is that with addictive behavior the use is uncontrollable and compulsive with unfavorable consequences (Hou et al., 2019).

Sun & Zhang (2021) found a number of factors that cause some people to be more susceptible to social media addiction. One theory is that people with unmet psycho-

social needs turn to social media for compensation, leading to addictive use. A second theory is that some people develop social media addiction due to the prevalence of the technology in their social networks and/or a shared group value around social media use. A third factor is for some, the cultural or political environment they live in can contribute to social media addiction. An example of this may be in a high-stress geopolitical environment that limits open socialization and may push citizens to seek refuge in social media. This could also be true for those who feel marginalized and seek online support systems. A fourth factor may be what different platforms afford their users and how they utilize the technology each offers. An example of this might be a person who uses Twitter for news, Facebook for joining interest groups and staying connected with extended family, and Instagram as a self-presentation tool.

Engagement and Comparison

Placing too much emphasis on the engagement one receives on content shared may lead to disappointment. These feelings of lower self-worth can be further reinforced when comparing oneself to others who have received more interactions on their posts. Worrying about interactions can lower self-esteem, increase depression and anxiety, and distract from necessary daily tasks (work, school, household responsibilities).

Users posting content with the hope of receiving positive feedback wish to boost their self-esteem and feel a sense of belonging with their peers. Pair this with the potential for future rewards, and it is a combination to cause one to constantly be checking their social media platforms.

When looking at others' platform activity, users often make comparisons such as "Did I get as many likes as X?" or "Why did Y like my post but Z didn't?" This search for validation on the internet serves as a replacement for real-life, meaningful connections. (McLean, 2019).

Filters

While some filters are silly and can be fun to use when interacting with family and friends, others can create a false illusion of perfection. Filters can be used to whiten teeth, modify body parts, and hide perceived imperfections. Even if one recognizes filters are being used and others are carefully curating what they are sharing, it can still feel impossible to live up to the type of lives others are portraying online.

Filters can put a distorted lens on reality and appearances, particularly for adolescents. While in the past, teens were exposed to altered photos of models in magazines, now these images are available at any time, and it is no longer only celebrities and models who strive to look perfect all the time. It can be hard to tell what's real and what isn't, and it can be particularly difficult when teen bodies are maturing and changing, making it hard on them physically and emotionally.

While we typically expect teens to be more vulnerable to filters, plastic surgeons are reporting an increase in requests from patients who wish to look like their filtered social media photos.

Fear of Missing Out (FOMO)

FOMO is a real phenomenon defined as an individual's high degree of anxiety toward absence from meaningful, pleasurable, or momentous experiences enjoyed by their contemporaries.

The desire to fulfill innate needs, such as interpersonal attachment, belonging, and popularity, drives social media users' high engagement with social media platforms as they may be intrinsically motivated to stay continually connected with these platforms. Subsequently, any

perceived (or actual) discontinuity of communication may evoke a sense of social exclusion or estrangement in an individual and may also act as a precursor to FOMO.

FOMO may increase the development of negative emotions and affectivity associated with social deficiencies, such as envy, rumination, and decreased self-image. Prior studies also indicated that these negative emotions are the consequences of problematic social media use and Internet use. This leads to the argument that a reciprocal relationship exists between FOMO and problematic social media as well as Internet use, which may lead to significant detriments to individual well-being.

People who had higher levels of FOMO also had more problematic social media use. They also had higher levels of depression, anxiety, neurosis, and fear of negative evaluation. In comparison, those with lower levels of FOMO had higher levels of self-discipline. There is a strong correlation between FOMO, social media use, and problematic social media use. The age and gender of a person do not seem to have any influence on FOMO (Roberts & David, 2019).

FOMO is linked with social media intensity and is likely to encourage the use of social media to stay connected. Humans have an innate drive to be in relationships with others, and social media is a simple and omnipresent channel to make connections. But social media offers an almost unending number of opportunities to connect, and such constant connection opportunities may increase one's FOMO. FOMO can have a positive effect on one's well-being if the person is using social media in a manner that fosters social connections (Roberts & David, 2019).

Feeling the need to constantly scroll social media can be driven by the fear of missing a message, not seeing a piece of content in time, and missing out on jokes, connections, invitations, or other information that connects one with their peers. Missing experiences can create anxiety and depression. When people look online and see they're excluded from an activity, it can affect thoughts and feelings and can affect them physically. Frequently checking social media can negatively impact school and work performance. The discretion can lower retention of information, increase procrastination, and increase levels of stress. Seeing posts of peers having a good time can cause feelings of loneliness, anxiety, and exclusion. Hiding behind a screen can reduce real in-person social connections, which further increases feelings of isolation (McLean, 2022 & Tandon et al., 2021 & Ocklenburg, 2021)

FOMO is further exacerbated by the design of some platforms with the "stories" feature, which has story posts disappear after 24 hours.

Sleep

Scrolling through social media is one of the most common pre-sleep activities between going to bed and falling asleep. While this may seem like a way to unwind, the reality is it can have negative effects on one's sleep.

Social media use has been linked to decreased, disrupted, and delayed sleep, which is associated with depression, memory loss, and poor academic performance. Social media use, along with other electronics such as TV, video games, computers, and smartphone use, are all associated with reduced sleep outcomes, including delayed bedtimes, interrupted sleep, shorter sleep duration, and poorer sleep quality.

Most electronic devices emit blue light, which is a good wavelength to promote productivity and focus but is not ideal for nighttime use. This blue light also affects melatonin levels more than any other wavelength of light does. While melatonin is produced when natural light levels decrease with the use of electronics at night,

melatonin production is suppressed, and one's body does not receive one of its key signals that it is time to wind down, which can delay circadian rhythms and negatively impact sleep.

When one goes to bed, it signals the brain it is time to go to sleep, but by scrolling through social media, a person's brain has endless stimulation, signaling one's brain to stay active and alert. This increased cognitive arousal negatively impacts sleep. The type of content one logs in to prior to bed has a big impact on how negative its impact on sleep is or isn't. How it affects you emotionally, socially, and cognitively all drive the effects on one's sleep. For example, more passive platforms such as photo-sharing apps have less impact on sleep than those that actively engage users. Scrolling through Instagram may be quite peaceful and relaxing compared to debating global politics on Twitter.

Many people are experiencing delayed bedtime due to scrolling through social media and losing track of time, and before they know it, one or more hours have passed. It then may take longer to fall asleep, the quality of sleep is reduced, and individuals may wake up feeling unrefreshed and tired. This is an example of one's bedtime being displaced. Their duration of sleep will be less and often leads to later wake-up times which can then impact work and school.

Sleep disruptions can happen when alerts are left on throughout the night leading to fragmented sleep. Sleep distractions happen when one wakes up and immediately checks social media, which leads to difficulty falling back asleep, which leads to more scrolling, and the cycle continues.

The timing of social media use and its impact on sleep seems to be most strongly linked to the amount of time one spends on social media. Social media use at bedtime is a strong predictor of poorer sleep quality. Those with a fear of missing out tend to have shorter sleep durations and struggle to stop using social media at night, which delays bedtime and disrupts sleep by increasing pre-bedtime cognitive arousal, which makes it difficult to stop thinking about interactions. The added pressure of perceived social expectations of being available online 24/7 and providing prompt responses further impact sleep (Scott & Woods, 2019 & Sunter, 2020).

Self-Esteem

Research suggests that people with different levels of self-esteem will experience interpersonal interactions differently. Typically, people with low self-esteem experience

anxiety and stress in social situations as they fear disapproval or rejection. They also tend to interpret interpersonal interactions in a way that validates their negative self-view, fixates on the unfavorable aspects of themselves, and thus perpetuates their negative mood. All this negative thinking can impact one's physical health. Those with high self-esteem generally cultivate high-quality relationships and experience those interactions as self-affirming. Comparing the two different views, someone with low self-esteem may feel insecure after receiving a compliment, while someone with high self-esteem views it as meaningful support, and it validates their positive self-view.

Social media interactions are frequently self-focused and overly flattering, which would not necessarily be a positive social interaction for someone with low self-esteem. People typically portray themselves in an overly positive manner and share positive life events more than negative ones. This constant exposure to positive information about others can trigger upward social comparison and elicit envy, which is linked to lower well-being. These types of exposures and interactions may be especially stressful for those with low self-esteem who tend to perceive others' favorable events as a threat to their belonging. In contrast, those with high self-esteem may be buffered from these processes as they tend to focus on their positive aspects and are less affected by the potential for rejection.

One research study of 863 adults aged 26 to 78 years compared social media use for those with low self-esteem versus those with high self-esteem and the impact it had on their systemic inflammation indicators (both C-reactive protein and interleukin-6). Chronic psychological stress can lead to elevated systemic inflammation, which is a large risk factor in diseases such as diabetes, cardiovascular disease, and cancer. While supportive, satisfying relationships are linked to lower systemic inflammation for those with high self-esteem, it is not for those with lower self-esteem, presumably because they have a negative self-view that limits or even eliminates the benefits they can gain from supportive relationships. Also, threats to social safety (social conflict, rejection, isolation, exclusion) can undermine physical health. Overall their research found that as self-esteem decreased, there was an increased positive association between social media use and inflammation (Lee & Way, 2021).

Social media users are constantly exposed to others' selective and glorified online self-presentations. This can negatively impact the viewers' self-esteem. For example, frequent Facebook users believe that others are happier and more successful than themselves, especially when they do not know the other users offline. Upward social comparison tends to be greater on social media than downward social comparison, and

upward social comparison is linked to diminished self-esteem. There also appears to be a correlation between people who spend a greater amount of time on social media per session and have a greater number of logins per day with reduced self-esteem. It has also been found that adolescents' self-esteem is lowered after receiving negative feedback on social media (Hou et al., 2019).

Physical Health

Researchers at the University of Buffalo recruited 251 undergraduate students between the ages of 18 and 24 to participate in a study on social media use and physical health. Information was gathered through self-report surveys on social media usage, physical wellness, and through a finger prick blood test. The researchers found that participants who excessively used social media had higher levels of C-reactive protein, a biological marker of chronic inflammation that is a predictor of serious illnesses such as diabetes, cardiovascular diseases, and certain cancers. Higher social media use was also linked to somatic symptoms, including headaches, chest pain, back pain, and more frequent medical visits for the treatment of illnesses. These same researchers found in another study that those with high self-esteem benefited from using social media while those with low self-esteem did not (Gambini, 2022).

Social media use can impact users' physical health in numerous ways. There is a connection between the mind and the gut, so that anxiety and depression often present with physical symptoms such as nausea, headaches, muscle tension, and tremors. Too much time on digital devices can lead to sleep disorders, decreased energy, and chest pains. Increased social media use typically leads to a decrease in physical activity and a more sedentary lifestyle. (Stabler, 2021; McLean, 2022)

Cyberbullying

Cyberbullying is using digital communication (text messages, online forums, and social media) to harass a person or group. Online bullies often take advantage of the opportunity to be anonymous as well as the ability to spread photos, rumors, or information quickly to a large number of people. 41% of adult internet users report having experienced cyberbullying personally at some point in their lifetime. Of those, 27% report having experienced severe online harassment such as sexual harassment, physical threats, stalking, and prolonged harassment. 36.5% of middle school and high school students in the United States reported experiencing cyberbullying. Like real-life bullying, cyberbullying is frequently directed at younger people, and peers are often the

perpetrators. These numbers are most likely even higher, as many do not report their experiences of online harassment. Online bullying can take the form of threats, humiliation, impersonation, hate speech, stalking, sexual harassment, and discrimination based on religion, race, or sexual identity. This malicious behavior can impact the victim's emotional and physical wellbeing. Cyberbullying can lead to depression and anxiety and cause the victims to cease their online activities completely. While this may prevent them from being cyberbullied, it also isolates them from positive peers and healthy interactions.

Cyberbullying awareness is critical, both on a global level and a family level, as it can help parents, young people, school officials, and community members be more mindful and sensitive to online harassment, and can help support individuals' safety online. All 50 states now have cyberbullying laws, most of them with criminal charges for electronic harassment. Many states have passed laws to include sexting to be covered under sexual harassment laws. In addition, almost all states now have revenge porn laws (distributing sexually explicit content without consent). As social media platforms are where most online attacks happen, there are growing demands for more regulation, liability, and action to be taken by social media companies (statista.com, 2022).

Poor School Performance

Social media use has been shown to hinder academic performance. Research has found that using social media for academic purposes did not predict academic achievement through improved grade point average. However, using social media for nonacademic purposes and social media multitasking did impact academic performance negatively. It has also been found that the amount of time students spend on social media negatively impacts their total grade point average. Multitasking via texting or social media use has negative effects on real-time learning performance, including information comprehension. Hou et al. (2019) found three explanations for the negative relationship between social media addiction and academic performance. First, excessive social media use limits the time available for studying. Second, social media may interfere with studying by causing a distraction and limiting the student's ability to focus. Furthermore, any multitasking, including social media, negatively affects the performance of specific tasks. Third, social media addiction causes students to be easily distracted, making it difficult for them to remember what they are learning. With interventions that reduced social media addictions, Hou et al. (2019) saw improvements in academic performance and overall mental health. Their intervention program consists of two steps. The first step consisted of cognitive restructuring, where participants were asked a series of

questions to reflect on their social media use, and they were then asked to list five advantages of reducing their social media use and five disadvantages of excessive social media use. Next they were instructed to take a picture of their list and use it as their lock screen on their phone and to put the hard copy written list somewhere they would see it multiple times a day. The second step of the intervention took place the second week of the study, with participants being asked to keep an evening journal of their thoughts, emotions, and behaviors related to social media use that day and what they expected their social media use to be the following day. Those who participated in the two-week intervention had reduced social media addiction and improved mental health, self-esteem, and sleep quality (Hou et al., 2019).

Adolescent Mental Health

Much of adolescence development (the period of personal and social identity formation) is now reliant on social media. Adolescents may not evade the potentially adverse effects of social media use due to their limited capacity for self-regulation and their vulnerability to peer pressure. As a result, they are at greater risk of developing mental disorders (Keles et al., 2019).

The most common mental health disorders in adolescents are generalized anxiety disorder and depression. The frequency of adolescents struggling with anxiety and depression has increased by 70% in the past 25 years. Anxiety and depression have adverse consequences on adolescent development, including lower educational attainment, school dropout risk, impaired social relationships, and increased risk of substance abuse, mental health problems, and suicide. Some theories attribute the rise in mental health issues among adolescents to increased educational initiatives to raise mental health awareness, and less stigma around mental health than there has been in the past. This has enabled teenagers to be more open to talking about their problems, seeking help, and to sharing personal experiences online. Therefore, mental health difficulties no longer are suffered through alone, and teens can find comfort in others with similar problems. Another theory is that with increased awareness, doctors may be more inclined to diagnose and treat mental health problems, which may have lowered the diagnostic threshold (Keles et al., 2019).

Depressive symptoms in adolescents can manifest in broader symptoms than in adulthood. In addition to typical depressive symptoms (sadness, feelings of worthlessness, hopelessness, and lack of energy), adolescents may experience irritability, aggression, and avoidance. Today's adolescents have been exposed to and

possibly used mobile technologies and social media since birth or as long as they can remember. These technologies have impacted how they interact and communicate with others. Positives of mobile technologies and social media include the promotion of creativity, increased presence and social participation, and providing adolescents with quick access to different types of information (including that related to promoting healthy behaviors and habits). Negatives of mobile technologies and social media include addictive internet behavior, isolation, absenteeism, failure in school, deterioration of family relationships and friendships, and various physical and mental health problems (including self-inflicted bodily impairment, eating disorders, and depression). Additional dangerous behaviors or exposures include suicide, violence, cyberbullying, grooming, or sexting (Arias-de la Torre, 2020).

It is important to understand the impact social media has on adolescent behavioral health, as mental health concerns have been rising steadily for that population. While high internet usage has been described as an addiction and frequent posting of selfies (a photo of one's self) may be labeled narcissistic, these behaviors are social norms on many social media platforms. Nonetheless, there has been research to support the notion that the excessive or inappropriate use of social media can impair social and personal development. There have been correlations between social media use and depression in children and adolescents, and as the number of social media accounts one has raises, so do the rates of anxiety (Keles et al., 2019).

The earlier that young people start using social media, the greater the impact it has on their mental health. Whereas males tend to express their aggression physically, females tend to do so relationally by excluding others and sharing hurtful comments. The opportunity for these damaging interactions is increased with social media use. An example of this might be if two middle school friends go to the movies over the weekend and post pictures together while they are out. A third friend is now hurt that she was excluded from her best friend's hanging out together. Pre-social media, she may not have known about their outing together unless one of them specifically told her (McLean, 2022).

One psychologist who works with teens experiencing anxiety summarized how social media use particularly impacts susceptible youth: "Middle school already is challenging for students with all of their developmental changes. As they go through puberty, they're tasked with establishing their identity at a time when the frontal lobes in their brains are not fully developed, and there is a lack of impulse control. All of this happens while their relationships with peers become more important. It's a very vulnerable

population to have access to something where there is no stopgap before they post or press the send button. I think that's something of which to be mindful." (McLean, 2022).

But it is not all negative, and social media does offer many people a support system they would not have otherwise. Social media enables adolescent users to strengthen bonds with existing friends and to form new friendships online, reducing social isolation and loneliness, and indirectly improving mental health. Research indicates that those with low social support are more likely to suffer from mental health difficulties than those with higher levels of social support. Furthermore, studies have found that there is an inverse correlation between supportive online interaction on social media and both depression and anxiety, but this is dependent on the quality of social support versus the quantity. All of this must be considered when addressing and monitoring social media use, while also maintaining an awareness that detrimental online interactions increase depression and anxiety and that passive social media use increases social comparison and envy, leading to an increased likelihood of experiencing depression (Keles et al., 2019).

Assessing Social Media Use

To understand social media use, there are two categories of scales; ones that focus on the intensity of social media use and ones that focus on the addition of social media use. Intensity scales look at general aspects of social media use, the amount of time spent on social media, and the feelings of connection to the platforms. Addiction scales look at behaviors and symptoms of addictive social media use, and their wording emphasizes the negative aspects of social media. As they each look at different aspects of use, they are going to reach different conclusions from the results. Scales that look at addiction find that social media tends to be associated with higher reported depression scores. Studies that focus on intensity often find results of improved wellbeing. Mieczkowski et al. (2020) suggest that some of the variable results, depending on what scale is used in a study, may be due to the priming effect some of the surveys have based on how they are designed. They also challenge that it can be difficult to measure social media use because of the increasing integration it has in our daily lives. These differences in research results may also be due to the individual's motivations for use, the subtle behavioral differences depending on the social media platform used, and because there may be a bi-directional relationship between a person's wellbeing and social media use.

The Bergen Social Media Addiction Scale is one of the more common scales used when assessing social media addiction. The scale looks at six core aspects of addiction: salience, mood modification, tolerance, withdrawal, conflict, and relapse (See Appendix A).

The Facebook Intensity Scale is commonly used when assessing social media intensity. This scale looks at how integrated social media is in individuals' daily lives, how much time they spend on platforms, and the extent of their social media presence. Intensity scales do not assess addictive or problematic behaviors related to social media. This scale could be modified by replacing "Facebook" with the social media platform of choice (See Appendix B).

Warning Signs

While expecting anyone in this day and age to quit social media completely is unrealistic, below are some warning signs that it may be time to reduce the amount of time one spends online.

- Feeling increased depression, anxiety, or loneliness

- Spending more time online than in-person with family and friends

- Comparing yourself to others

- Frequently feeling jealous of others

- Being cyberbullied or trolled

- Participating in risky behaviors or photos in an attempt to gain interactions (likes, comments, follows)

- School or work performance is suffering

- Self-care is deprioritized (sleeping, eating, exercise, mindfulness) (Stabler, 2021)

Social Media Boundaries

Just knowing that certain social media use behaviors can be detrimental to our mental health usually isn't enough to motivate individuals to change their social media use. It's

also usually unrealistic to expect someone to quit social media use completely. One way to encourage change is for people to monitor how their social media use impacts their behaviors and emotions, which then helps them make educated choices around their usage. One way to do this is to conduct a behavior experiment by rating one's emotions on a scale of 0-10 (10 being the most intensely one could experience the identified emotion). This rating is completed before and after social media use at the same time each day for a week. An example may be individuals rating their feelings of happiness and finding that they feel less happy after being on a specific social media app. The ideal result would then be deciding to use that app less frequently and replacing the usual time spent on that platform participating in an activity that increases their happiness. Self-monitoring has shown to create a change in one's perception of social media. In one study, college students were asked to limit their time on each social media platform they used to ten minutes a day for three weeks, while a second group was allowed to continue with their normal social media practices. The limited group showed decreases in loneliness and depression during those three weeks compared to the second group of students (McLean, 2022).

- Boundaries around social media use might include:

- Setting screen time limits

- Setting time restrictions for specific apps

- Setting designated times to check accounts

- Having a social media detox by taking a break from social media for a few days/ weeks and focusing instead on self-care and relationships with others (Stabler, 2021; McLean, 2022)

Parents can help set a good example by setting and following a family plan for all members to follow on how much time they should spend on electronic devices. The level of electronics used by parents can set the expectation of what is permissible for their children. One study found that parents' unnecessary mobile device use when interacting with their children led to distracted parenting, an increased bid for attention from the children, and conflicts with other caregivers. When children start using social media, parents can set expectations that the phones are to be handed in each night and that they can review their children's posts and messages. Benefits of social media can include parents learning about struggles their children are facing that they had no idea about until they were shared online. It can also be a good self-monitoring aspect for

children; if they wouldn't want their parents to see it, then it probably shouldn't be posted online (McLean, 2022).

Setting Healthy Limits around Social Media Use

Give Yourself Permission to Unplug and Take a Break

Checking social media can sometimes begin to feel like a responsibility. In reality, all people have the right to choose when and how often they use social media platforms or even if they use them at all. Sometimes just acknowledging that fact can be very empowering. When struggling with social media overuse, sometimes taking a break is the best solution, and it may require blocking apps to help stick to the break. Whether individuals are choosing to take a break for themselves or have friends who are taking a break, it is important to respect and support one another's needs. Stepping completely away from social media can be difficult but is a good way to help reconnect to reality. Logging out from accounts for a day, week, or even a month may be a good way to start. When individuals feel like they have enough willpower to stay away, they might ask a trusted friend to change their passwords so that they are unable to log back into their accounts until the designated time period has expired. It may be enlightening and beneficial to discover how time can be filled when not utilizing social media as much or at all. Whether it's reconnecting with friends or family or discovering a new hobby or sport, no matter what social media is replaced with, it's an opportunity to live life as it happens versus through a screen.

Set Time Limits to Reduce Screen Time

Determining what a reasonable amount of time is to spend on social media is a personal choice that will be different for each individual. While thirty minutes may be reasonable to some, it may feel too restrictive for others, and two hours may be more realistic for them. The key is once a time limit is determined, it is important to stick to it, as it gives a good baseline for those who choose to cut back further in the future or increase their allotted time. While smartphones do have positive aspects, being able to take them everywhere with us and access so much information can impact how much time we have left for other activities. Studies show on average, people spend two hours a day on social media, and this number is significantly higher for many. Tracking how much time is spent on social media per day would be one way to see if it is time to reconsider limiting screen time and setting more time aside for enriching real-world experiences.

Shut Down for the Night

Social media use can negatively impact sleep, as explored above. The best way to counteract this is to turn one's phone off, put it on airplane mode, or leave it on silent. Many new phones also have sleep settings that will stop notifications from coming through while one is sleeping. Ideally, the phone could be placed in a different room to charge for the night, and an alarm clock used to wake up in the morning. But, if this seems too extreme, it is recommended that it be kept on the other side of the room and as far away from the bed as possible. Social media usage should be wrapped up at the very least 30 minutes before bedtime, and ideally two hours before bed. Instead of scrolling before going to sleep, healthy alternatives might include listening to music, taking a bath, or reading a book. Something that one finds relaxing and does not involve blue light is ideal (Sunter, 2020).

Cut Ties with Negative People, Unfollow Unhealthy Accounts, and Follow People Who Bring You Joy

It's important to remember that all too often, the images and stories on social media do not reflect real life. Whether you follow friends, family members, influencers, organizations, celebrities, or businesses, social media feeds are filled with carefully crafted and curated content. If social media connections are leaving individuals feeling overwhelmed or less-than, or if they are noticing a decrease in their happiness, self-esteem, or life satisfaction after seeing others' posts, it may be time to make a change. If reading or interacting with a person or group causes anger or distress, that interaction should be terminated, as it is likely doing more harm than good. Much of social media content is highly manipulated and may be attempting to represent lifestyles and attitudes that are unrealistic or nonexistent. Limiting the number of people one follows to those who are close, make one feel good, and will be there when needed may limit the false realities that some accounts/people post. Reducing or eliminating negativity by unfollowing, blocking, or deleting accounts that don't bring joy, positivity, inspiration, or motivation to one's life is advantageous.

Only Contribute in a Positive Way

The old adage "If you can't say something nice, don't say anything at all" is very pertinent to social media. Attacking others or promoting negative thoughts or ideas not only harms the target of one's post but the writer of the post as well. While speaking out against something, one can do so in a positive way by offering alternatives instead of

criticisms. One way to start a conversation that may prevent a discussion from turning adversarial is by beginning with "I have another perspective...." Make sure what one is sharing comes from a reputable news or information source. It's important to consider if a post, article or video is helpful or harmful to others, if it provides knowledge worth sharing, and if it is contributing something positive to the digital world?

Provide and Seek Clarity in Your Communications

Social media does not provide physical cues people use to understand others. Consequently, messages can easily be misinterpreted, offenses taken, and a negative reply may escalate tensions where it was unnecessary. One should be clear in their communication with others, and if a comment appears to be unfavorable in some way, one can politely ask for clarification. One example to keep a conversation from spiraling into negativity might be, "I took your comment to mean this.... Did I have that right"? Another way to support a healthy online community is, prior to commenting, check your words through three standards: One, is it true? Two, is it necessary? And three, is it kind? (This standard check is modified from 13th-century Persian poet Rumi).

Live in the Moment

While photos and videos have their place, being aware of the present moment is crucial to one's connections and experiences. One study found that media usage can even change or reduce one's memories of life events because the focus is on the photo itself rather than the experience! It is important to enjoy the present moment even while capturing the picture or video.

Connect and Support Instead of Compare

There are so many people one can connect with through social media, even if they are on the opposite side of the world. While this can be a good thing, if individuals feel isolated, upset, or find themselves constantly comparing themselves to others, it may be time to reevaluate the reasons for using social media. Comparing oneself to other people can make one unhappy in the long run, while making genuine connections with others can enhance one's overall well-being. While on social media, one check might be, "Am I comparing or connecting?" Make sure to take time to have an interaction that connects one to others, such as reaching out to an old friend or an elderly relative or sending a short message or comment to brighten one's day. There are many digital

communities and groups for those with similar interests. Being more selective with whom one connects and engages with may increase feelings of connection.

Keep things IRL (In Real Life)

If social media is raising one's stress levels, maybe it's time to delete Facebook, Instagram, or other social media apps from one's phone to eliminate easy access to them. Instead, prioritize time with friends and family over zoning out to scrolling through social media feeds.

Start the Day Intentionally

While it is very easy to pick up one's phone and start scrolling first thing in the morning while still in bed, it's not necessarily the healthiest way to start the day, as one can not control what is going to be seen. Being exposed to something negative could potentially set off harmful subconscious thoughts, putting one at risk for unhealthy patterns. Instead, begin the day with prayer, meditation, positive affirmations, or stretching. These positive alternatives are more likely to lead to a healthier internal monologue than starting the day scrolling social media.

Make Events Accessible

When planning an event, make sure there are other ways to RSVP besides on Facebook or other social media platforms for those who have chosen to no longer participate on social media or are taking a break.

Don't Struggle Alone

If individuals are experiencing symptoms of depression, anxiety, attention problems, or other issues related to overuse of social media, they should make an appointment to talk through the situation, be it through one-on-one counseling, peer groups, or other support systems that will help teach alternative coping skills. (Community Reach Center, 2018; MindHandHeart, 2020;NAMI, 2019)

Limitations/Further Research

One aspect that further complicates research is that social media is a fast-moving field, and technological developments outpace research. What are the most popular or used

platforms can change rapidly, and even the features they provide can shift over time. The rapidly changing social media landscape can cause research measures to be outdated quickly, and findings may not be able to be generalized beyond a specific platform. It is not unheard of for some research to be outdated before it is even completed (Scott & Woods, 2019).

A second consideration is that much of the research on social media use has been done with adolescents and college students. While they are an important demographic , and it may be easier to access them for research purposes (i.e., giving a survey to all 10th graders that, depending on school size, gives researchers an automatic group of 30-1000 students), it is too limiting, as it doesn't include how social media use impacts adults. Although It is imperative to understand the impact social media has on teenagers as they are vulnerable and at increased risk for developing lifelong poor mental health, adults can also be significantly impacted by social media use, as it is prevalent across all generations (Scott & Woods, 2019).

Conclusion

Since social media is here to stay, more research is needed in this area, as it is still unclear why some people are more likely to experience the positive effects of social media while others are more susceptible to the negative aspects. Research tends to focus on unfavorable consequences associated with social media, and there is limited research on general positives of social media interactions outside of specific populations (ex.LGBTQ+) or health concerns (support for cancer patients or youth self-harm). Individuals need to be better educated on the benefits and risks of social media use and how to set boundaries around their use that are beneficial to them. Furthermore, those who work in policy may wish to lobby for changes in legislation, particularly around cyberbullying and holding companies accountable for the addictive nature of their platforms and lack of monitoring of harassment.

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Appendix A:

Bergen Social Networking Addiction Scale (BSNAS)

Instruction: Below you find some questions about your relationship to and use of social media (Facebook, Twitter, Instagram and the like). Choose the response alternative for each question that best describes you.

How often in the last year have you:

1. spent a lot of time thinking about social media or planned use of social media?

   Very rarely   Rarely   Sometimes   Often   Very often

2. felt an urge to use social media more and more?

   Very rarely   Rarely   Sometimes   Often   Very often

3. used social media in order to forget about personal problems?

   Very rarely   Rarely   Sometimes   Often   Very often

4. tried to cut down on the use of social media without success?

   Very rarely   Rarely   Sometimes   Often   Very often

5. become restless or troubled if you have been prohibited from using social media?

    Very rarely   Rarely   Sometimes   Often   Very often

6. used social media so much that it has had a negative impact on your job/studies?

    Very rarely   Rarely   Sometimes   Often   Very often

Addiction component: 1. salience, 2. tolerance, 3. mood modification, 4. relapse, 5. withdrawal, 6. conflict. All items are scored on the following scale: 1 (Very rarely), 2 (Rarely), 3 (Sometimes), 4 (Often), 5 (Very often). Scoring 4 or more items at a 3 or above is an addiction indication.

Appendix B:

Facebook Intensity (FBI)

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students use of online social network sites. *Journal of Computer-Mediated Communication, 12*, 1143-1168.

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1. Facebook is part of my everyday activity

    Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

2. I am proud to tell people I'm on Facebook

    Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

3. Facebook has become part of my daily routine

   Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

4. I feel out of touch when I haven't logged onto Facebook for a while

   Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

5. I feel I am part of the Facebook community

   Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

6. I would be sorry if Facebook shut down

   Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

7. Approximately how many TOTAL Facebook friends do you have?

   20 or less   20-100   100-250   250-400   over 400

8. In the past week, on average, approximately how much time PER DAY have you spent actively using Facebook?

   0-30 mins   30-60 mins   60-90 mins   90-120 mins   over 120 mins

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All items are scored on the following scale: 1 (Strongly disagree), 2 (Disagree), 3 (Neither), 4 (Agree), 5 (Strongly Agree). A final score is calculated from the mean of all the items in the scale. The higher the mean score the higher intensity of Facebook usage.

Appendix C:

Social Media Benefits Scale (SMBS)

Craig, S. L., Eaton, A. D., McInroy, L. B., Leung, V. W., & Krishnan, S. (2021). Can social media participation enhance LGBTQ+ youth well-being? Development of the social media benefits scale. *Social Media+ Society*, *7*(1), 2056305121988931.

Pick your top 5 favorite social media platforms.

Social Networking/messaging	Content Production/Sharing	Content Consumption
Facebook	Instagram	Spotify
Twitter	Tumblr	YouTube
Kik	Reddit	Pinterest
Snapchat	TikTok	Wikipedia
OTHER: _____		

Why do you use favorite platform: _____

- For self-reflection

- Because I'm bored

- To be entertained

- Gives me information

- Makes me feel connected

- Just helps me deal with life

- Answers my questions

- Helps me plan While I'm waiting

- Makes me feel loved

- Lets me share my story

- Lets me help others

- Lets me learn new things

- Helps me figure out where I fit

- Makes me feel stronger

- Access LGBTQ+ information

- Follow LGBTQ+ celebrities and/or groups

This page is completed for all five favorite social media platforms. To score: each of the same questions is added up that is checked (ex. For self-reflection is checked for ⅗ platforms, giving the respondent a score of 3 for that item. The higher an item scores the more important social media is to the respondent for that specific benefit.