

EVALUATION OF THE IMPACT OF SOCIAL MEDIA ON THE MENTAL HEALTH OF ADOLESCENTS AND YOUNG ADULTS

Dr. Gul Snober

Lecturer, Department of Psychology,
Govt. Degree College for Women, Baramulla
Emai: Drsnowber777@Gmail.Com

ABSTRACT

Teenagers are finding it harder and harder to picture life without social media. Risk assessment is a necessary for practitioners, and social media may be novel. Despite the paucity of scientific evidence, professional and teenage attitudes influence the association between social media and mental health. This group's usage of social media may result in problems with privacy, cyberbullying, and detrimental effects on mental and educational outcomes. Using social media in an ethical manner may improve communication, self-worth, relationships, health, and medical knowledge. There is growing evidence that social media negatively affects the mental health of teenagers, but little is known about how teenagers perceive social media, particularly as a source of information, or how they utilize contemporary media discourses as a platform for self-expression. Numerous young people utilize media, including cell phones, which results in chronic sleep deprivation. This impairs cognitive function, academic achievement, and socioemotional functioning. Empirical, cross-sectional, and longitudinal research have shown that teenagers who use smartphones and social media more often experience mental distress, self-harm, and suicidality. To assist young people and their families in reducing the hazards associated with using social media and smartphones, clinicians may use open, nonjudgmental, and developmentally appropriate strategies including education and hands-on problem-solving.

Keywords: social media, mental health, young adults

Introduction and Background

Humans require companionship to live since they're social creatures. Thus, social relationships alleviate stress, anxiety, and depression, whereas social isolation may harm mental health [1]. Over the last decade, social media sites like Facebook, Twitter, Instagram, and others have transformed people's communication habits (Table 1). Facebook is the largest social network with billions of users. This number is likely to rise rapidly, especially in emerging countries. Facebook's extensive use for social and corporate communication has enhanced online learning, idea sharing, and connectivity [2]. Globally, 3.484 billion individuals utilized social media in 2019, up 9% from 2018 [3].

TABLE 1: List of social media applications available on the internet

Social media applications	Examples
Social networks	Facebook, Twitter, Instagram, Snapchat

Media sharing	WhatsApp, Instagram, YouTube, Snapchat, TikTok
Messengers	Facebook Messenger, WhatsApp, Telegram, Viber, iMessage
Blogging platforms	WordPress, Wikipedia
Discussion forums	Reddit, Twitter
Fitness & lifestyle Fitbit	

People with mental health may perceive their own potential, handle daily challenges, perform effectively in work, and greatly enhance others' lives [4]. The pros and cons of social media for mental health are being debated [5]. We must defend our mental health on social media. Quality and quantity of social contacts affect mental, physical, and mortality risk [5].

The misdirected behavior concept may illuminate social media and mental health. According to the "displaced behavior hypothesis" [6], people lack self-control and may behave in ways that fulfill them quickly but not their long-term objectives when presented with challenging or stressful situations. When people can't control their stress, they may act out, which may boost their mood but hurt their long-term goals and health [7, 8]. Sociologist Roy Baumeister introduced the displaced behavior concept in the 1990s [9]. Lacking self-control, which Baumeister says may erode over time, makes people more likely to behave impulsively or destructively [9]. People may pursue acts that momentarily ease stress but make matters worse, creating a vicious cycle [9]. In the hypothetical terms, social media and other sedentary activities prevent face-to-face social interaction, which has been found to prevent mental illness [10]. Social theories suggest that social media use influences people's perception, maintenance, and engagement with their social network, which affects mental health [4].

Many studies have linked prolonged use of social networking sites like Facebook to stress, anxiety, and depression [11]. Adolescence is distinct and important.

Since family issues, bullying, and social isolation are widespread, social and emotional development must be safeguarded. Digital technology has changed many elements of adolescence. Today's adolescents' social media usage is obvious. Socializing is widespread at home, school, and social events. Social media helps teens communicate with friends. Teens like social media because they can share videos, images, and other stuff. Teens may also meet friends, enjoy smart discussions, try new activities, and express themselves. Users may like, comment, and share content on these sites without restrictions. Teens publish abusive remarks on social media. Teens frequently troll for fun without considering the risks. Social media trolling targets body shaming, abilities,

language, and lifestyle. Trolling may cause stress, anxiety, sadness, loneliness, and suicidal thoughts. After reviewing the research, the authors explain how social media impacts teenage well-being and provide community, family, and individual prevention and intervention options [12].

Review

There is a "generally correlated" relationship between adolescent social media usage and depression, however the data quality is often low and certain results have been inconsistent [13]. Numerous studies have linked social media use to self-harm, loneliness, and empathy loss. Other research found no damage or that social media may aid socially isolated or disadvantaged persons [10]. Social media has become more significant to young people due to the fast growth of technology. Social networking presents huge obstacles and intriguing prospects. Researchers are finding that some social media interactions may harm youth mental health [14]. Teens may post, like, and share information on social media. These people are usually active users. But kids may also use social media passively by "lurking" and concentrating on others' posts. The distinction between active and passive social media use is frequently critiqued as a false dichotomy since it does not always indicate goal-orientedness or procrastination [15]. However, the text does not explain why this difference is erroneous [16]. One definition of procrastination is talking to others to avoid a more essential activity. Seeing other people's content instead of contributing with them may be to stay up with pals. Social use is a key contrast between the types. Understanding and assessing all these digital technology applications is difficult. From a logical and practical perspective, combining all digital activities into a single pleasure predictor reduces accuracy [17].

Methodology

Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) declaration and accepted industry standards, this systematic review was conducted and reported. This study sought to locate research on the effects of technology, particularly social media, on young adults' and adolescents' psychosocial functioning, health, and general well-being.

Between January 1, 2000, and May 30, 2023, searches were conducted using the MEDLINE bibliographical database, PubMed, Google Scholar, CINAHL (Cumulative Index to Nursing and Allied Health Literature), and Scopus. The search approach included social media, mental health, teenagers, and young adults (impact or connection or effect or influence).

Using the search strategy, two researchers (AK and AR) independently searched the literature for relevant studies. Based on the titles and abstracts of the papers they found, they assessed whether or not to include them. After that, the complete texts of any papers that may be accepted were obtained and assessed for inclusion. The researchers' disagreements were settled by discussion and agreement.

The researchers considered studies that looked at how technology, particularly social media, affects young adults' and adolescents' psychosocial functioning,

health, and general well-being. Only reviews, cross-sectional research, longitudinal surveys, and articles written in English were taken into account. Studies that were not published in English, were case reports, weren't compared, didn't provide the relevant findings, or didn't include the names of the authors were all disqualified. Examining the reference lists of the publications we were able to acquire also led us to other articles.

The two researchers (AK and AA) retrieved the data separately and independently using a standard form. The author, publication year, research design, sample size and age range, outcome measures, and the most significant discoveries or conclusions are among the retrieved data.

To examine the data, a narrative synthesis of the findings was used, necessitating a logical and understandable summary and presentation of the findings of the included study. A table provided an overview of the main conclusions or results from each research.

RESULTS

STUDY SELECTION

From January 1, 2000, to May 20, 2023, a comprehensive search of electronic databases, including PubMed, Embase, and the Cochrane Library, was conducted. A preliminary search turned up 326 studies that could be relevant. 34 full-text publications were screened for eligibility and their eligibility was assessed after duplicates were removed. For a variety of reasons, including non-comparative research, case reports, and studies that did not publish data of interest, a total of 23 publications were eliminated (Figure 1).

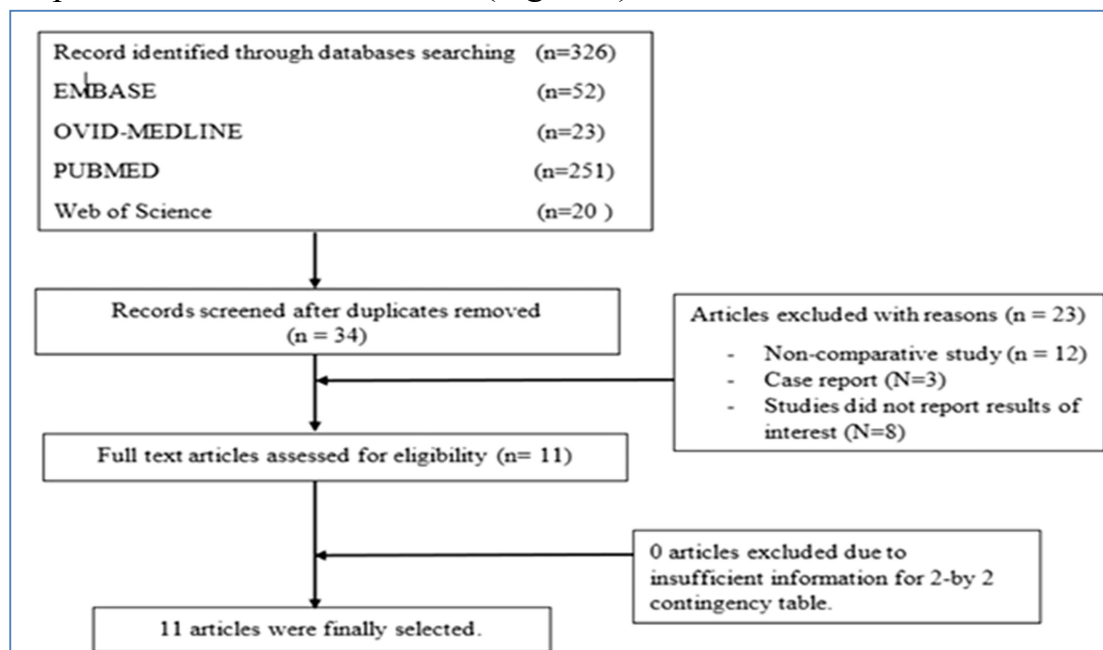


FIGURE 1: The PRISMA figure showing the steps to choose the studies for systematic review

Eleven papers that looked at the relationship between children's and teens' usage of social media and symptoms of depression were found in this systematic

review. A weak but statistically significant correlation between social media usage and depressive symptoms was found in the study. Nevertheless, it is unclear if this link is causative, and further research is needed to develop explanatory models and theories for inferential research [18].

Further investigation examined the impact of technology on the psychological well-being, physical health, and general wellbeing of young adults and adolescents. Elevated social media use has been linked to worse mental health outcomes [19], and it has also been linked to a greater risk of internalizing and externalizing problems in teenagers, particularly in girls [20]. Social media usage has also been linked to disordered eating and body image issues, particularly in young women [21, 22]. Additionally, social media use may increase the risk of alcohol intake and its aftereffects in adolescents and young adults.

Teens who are victims of cyberbullying have been shown to have worse mental health outcomes, including a higher likelihood of depression and anxiety [23]. Additionally, social media usage has been linked to increased depressive symptoms and excessive reassurance-seeking [24, 25], as well as increased popularity and perceived social support, beauty comparisons, and body image concerns, particularly in young women. The use of media devices before bed by kids and teenagers was shown to be significantly linked to excessive daytime sleepiness, poor sleep quality, and insufficient sleep quantity [26].

While having friends in real life might be a tremendous source of social support, having friends online may not provide as much safety from persecution [27]. An individual family media use plan can help strike a balance between screen time and other activities, set boundaries for content access, promote digital literacy, and support open family communication and consistent media use rules. Digital and social media use offer both benefits and risks to the health of children and adolescents. (Tables 2 and 3) [28]

TABLE 2: Studies on the impact of technology on adolescents and young adults' psychosocial functioning, health, and well-being

Authors	Year	Study design	Sample size and age range	Outcome measures
McCrane et al. [18]	2017	Systematic review	11 empirical studies examining the relationship between social media use and depressive symptoms in children and adolescents	Correlation between social media use and depressive symptoms, with limited consensus on phenomena for investigation and causality
Przybylski et al. [19]	2020	Cross-sectional	National Survey of Children's Health (NSCH): 50,212 primary caregivers	Psychosocial functioning and digital engagement, including a modified version of the Strengths and Difficulties

				Questionnaire and caregiver estimates of daily television- and device-based engagement
Riehm et al. [20]	2019	Longitudinal cohort study	Population Assessment of Tobacco and Health study: 6,595 adolescents aged 12-15 years	Internalizing and externalizing problems assessed via household interviews using audio computer-assisted self-interviewing
Holland and Tigge mann et al. [21]	2016	Systematic review	20 peer-reviewed articles on social networking sites use and body image and eating disorders	Body image and disordered eating
Moreno et al. [22]	2016	Review	Studies focused on the intersection of alcohol content and social media	Alcohol behaviors and harms associated with alcohol use
Fisher et al. [23]	2016	Systematic review and meta-analysis	239 effect sizes from 55 reports, representing responses from 257,678 adolescents	Peer cybervictimization and internalizing and externalizing problems
Nesi and Prinstein [24]	2015	Longitudinal	619 adolescents aged 14.6 years	Depressive symptoms, frequency of technology use (cell phones, Facebook, and Instagram), excessive reassurance-seeking, technology-based social comparison, and feedback-seeking, and sociometric nominations of popularity
Fardouly and Vartanian [25]	2016	Review	Correlational and experimental studies on social media usage and body image concerns among young women and men	Body image concerns and appearance comparisons

Carter et al. [26]	2016	Systematic review and meta-analysis	20 cross-sectional studies involving 125,198 children aged 6-19 years	Bedtime media device use and inadequate sleep quantity, poor sleep quality, and excessive daytime sleepiness
Ybarr a et al. [27]	2015	Cross-sectional	5,542 US adolescents aged 14-19 years	Online and in-person peer victimization and sexual victimization, and the role of social support from online and in- person friends
Chassiakos et al. [28]	2016	Systematic review	Empirical research on traditional and digital media use and health outcomes in children and adolescents	Opportunities and risks of digital and social media use, including effects on sleep, attention, learning, obesity, depression, exposure to unsafe content and contacts, and privacy

TABLE 3: Main results or conclusions of studies on the impact of social media on adolescents and young adults' mental health, substance use, peer victimization, and technology-based behaviors

Authors	Main results or conclusions
McCrae et al. [18]	There is a small but statistically significant correlation between social media use and depressive symptoms in young people, but causality is not clear and further research is needed to develop explanatory models and hypotheses for inferential studies. Qualitative methods can also play an important role in understanding the mental health impact of internet use from young people's perspectives
Przybylski et al. [19]	Higher levels of social media use were associated with poorer mental health outcomes, but this relationship was small and may be due to other factors

Riehm et al. [20]	Greater social media use was associated with an increased risk of internalizing and externalizing problems among adolescents, particularly among females.
Holland and Tiggemann et al. [21]	Social media use is associated with body image concerns and disordered eating, particularly among young women.
Moreno et al. [22]	Social media may be a risk factor for alcohol use and associated harms among adolescents and young adults.
Fisher et al. [23]	Cyberbullying victimization is associated with poorer mental health outcomes among adolescents, including increased risk of depression and anxiety.
Nesi and Prinstein [24]	Social media use is associated with greater depressive symptoms and excessive reassurance-seeking, but also with greater popularity and perceived social support.
Fardouly and Vartanian [25]	Social media use is associated with appearance comparisons and body image concerns, particularly among young women.
Carter et al. [26]	Bedtime media device use is strongly associated with inadequate sleep quantity, poor sleep quality, and excessive daytime sleepiness in children and adolescents. An integrated approach involving teachers, healthcare providers, and parents is needed to minimize device access and use at bedtime.
Ybarra et al. [27]	Online friends can be an important source of social support, but in-person social support appears to be more protective against victimization. Online social support did not reduce the odds of any type of victimization assessed.
Chassiakos et al. [28]	Digital and social media use offers both benefits and risks to the health of children and teenagers. A healthy family media use plan that is individualized for a specific child, teenager, or family can identify an appropriate balance between

	screen time/online time and other activities, set boundaries for accessing content, guide displays of personal information, encourage age-appropriate critical thinking and digital literacy, and support open family communication and implementation of consistent rules about media use.
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Discussion

Does Social Media Affect Teens and Young Adults in a Good or Bad Way?

When it comes to utilizing media to foster acceptance or a sense of community, adults often associate it with various behaviors and patterns of usage, placing the responsibility for the issues that younger generations confront under one conceptual heading [29, 30]. Because various activities serve different aims and varied patterns of usage yield different consequences, the impacts of social media on mental health are multifaceted [31]. Policymakers and the public generally tend to overlook the variety of ways that individuals utilize digital technology because they consider them to be "generic activities" with no particular significance [32]. In light of this, it is essential to recognize the complexity of the influences that digital technology has on the mental health of teenagers [19]. The lack of well-documented technology use measurements exacerbates this empirical ambiguity. The most popular technique for gauging technology usage is self-reporting, however it has limitations. This is due to the fact that self-reports rely on individuals' subjective assessments of their own actions, which are subject to error [33]. The association between self-reported smartphone use patterns and scientifically validated levels is, at most, poor [34, 35].

Not only does the measurement of a given behavioral category become less precise when disparate forms of technology usage are combined into one, but the category itself becomes less precise as well. In order to achieve accuracy, we must examine the effects of several applications, preferably with the use of scientific study results [36]. Many of the research's results, which have sometimes been challenging to interpret, imply that utilizing social media may have a relatively detrimental but substantial influence on one's mental health [36]. An increasing body of research is being conducted in an effort to provide a deeper comprehension of the factors influencing teenage mental health, social interaction, and emotional development [20].

Because social media employs a variety of distinct digital strategies, it is difficult to provide a concise account of the impact it has on young people [37, 38]. Understanding the personal traits that certain children may be more likely to display than others is essential before using and responding to social media in an adaptive or maladaptive way [39]. Furthermore, it's important to identify the precise actions or interactions that teens engage in on social media that endanger them.

Teenagers in the US were specifically questioned in a prior research, and the authors discovered that 31% of them thought the implications were mostly positive, 45% thought they were neither beneficial nor detrimental, and 24% thought they were negative [21].

Teens who thought social media was helpful said it allowed them to meet others with similar interests, learn new things, and connect with friends. Some who think the consequences are severe claim that social media increases the likelihood of (i) bullying, (ii) neglecting in-person interactions, and (iii) forming false views about other people's life [21]. Additionally, by identifying the warning symptoms and using the knowledge, there is a chance to prevent depression and suicide [40]. The relationship that should be drawn between conventional dangers and those that may be encountered online is a recurring theme in this field of study. The conventional narrative that is conveyed to parents is being called into question, challenging the idea that the digital world and its impacts are too complex, fast changing, or subtle for us to completely understand or effectively guide young people through [41]. Potential mediators of the relationship between social variables and adolescent depression and suicidality, such as gender, age, and parental engagement, should be the last item to be examined [22].

The Dangers That Come With Young Adults Utilizing Social Media

Teenagers' encounters with their peers have a significant influence on the development and maintenance of psychopathology in those teens. Peer connections on social media may happen more quickly, intensely, and often than they do in real life [42]. A few different kinds of online peer interactions have been recognized by earlier research [22] as possible risk factors for mental health. It has been shown that experiencing cyberbullying, also referred to as cyber victimization, is associated with higher rates of self-harm, suicide thoughts, and a range of other internalizing and externalizing problems [43].

Social networking sites may also be dangerous places for young people because of peer pressure [44]. Peer rejection, online fighting, and involvement in drama or conflict are some examples of this [45]. Teens who spend time online, where they have access to potentially harmful information as well as a broader variety of their peers, may also see an increase in peer influence processes [46]. Young individuals may be more likely to engage in dangerous conduct themselves, such as drinking or taking other drugs, if they are exposed to content on social media that portrays such behavior [22]. Adolescents who are already at risk may be more likely to self-harm since it may be easy to get internet resources that discuss suicide and self-harm [22]. According to a recent research, in the two weeks before their admission, 14.8% of young people hospitalized to psychiatric institutions due to their danger to themselves or others had visited websites that promoted suicide [24]. The study included adolescents who were sent to mental health facilities due to their potential to pose a danger to themselves or others [24]. They like posting photos of themselves on social networking sites, which leads to a constant stream of messages and images that are often and laboriously edited to portray individuals in a positive manner [24]. This has an impact on some young people, causing them to start drawing negative comparisons between themselves and other people based on their accomplishments, skills, or looks [47, 48].

Studies have shown a connection between teenagers' depressive symptoms and increased levels of social networking [25]. The problem of displacement must be

taken into account when analyzing the effects of teenage technology usage on mental health. This speaks to the issue of what other significant tasks are being supplanted by social media use [49]. It is well known that children's and teenagers' circadian rhythms have a significant impact on their mental and physical development.

Nonetheless, prior research has consistently linked using a mobile device before bed to worse sleep quality outcomes [50]. These outcomes include weariness throughout the day, shorter sleep durations, and worse sleep quality [50]. Remarkably, 40% of teenagers say they use a mobile device within five minutes of going to bed, and 36% of teenagers say they wake up at least once throughout the night to check their gadgets [25]. As a result, social media's effect on sleep quality remains a significant risk factor for young people's eventual mental health illnesses, making it a crucial subject for the advancement of this field of study [44].

The majority of research studies looking at the connection between social media usage and depressive symptoms have focused on the frequency and problematic nature of social media use [4].

The majority of studies that were included for this analysis discovered a positive and reciprocal relationship between depressive symptoms and, sometimes, thoughts of suicide [51, 52].

Furthermore, the degree to which drug use traits and adolescent susceptibility influence this relationship is uncertain [52]. Furthermore, it's unclear whether other environmental factors, including cultural values that vary or parental guidance and support, have an impact on this relationship [25]. Although there is a good chance that moderate usage is associated with better self-regulation, it is unclear whether this is because intermediate users are inherently better at self-regulation [25].

Gains From Social Media

Although much of the discourse around young people and new media has focused on potential difficulties, the social media ecosystem has made it possible to assist adolescent mental health in more ways than before [39]. Social networking may help with identity development, creativity, and comedy [53]. Teens use social media more than ever and have more mobile devices than any previous generation [27]. This may not be unexpected given youth's increased demand for novelty, social approval, and affinity and their attraction to digital technologies and their affordances [27]. It's important to understand the impacts of teens' extended digital media use and use new technologies to help their mental health [53]. In light of current public discourse, we should underline that digital technology is neither good nor evil [27].

A well-known advantage of social media is social connection; 81% of students think it helps them feel more connected. Teenagers say social media is best for communication with friends and family, and evidence suggests it promotes health. Social media allows kids to connect with people who share their interests, opinions, and life experiences, which may foster a sense of community [29].

Adolescent mental health may be improved by innovative use of digital media in medical screening, treatment, and prevention [28]. Previous study has demonstrated that checking social media for depression or drug addiction is effective. Sadness, PTSD, and suicidality may now be detected on social media using powerful machine learning. Most teenage media consumption research employ self-report measures. The single study on whether media exposure precedes or predicts mental health problems makes it difficult to draw conclusions. Adults typically blame media for youth issues [30]. Media panics are cyclical, so they're not limited to the new and unknown. Technology has profoundly changed teens' worldview, social networks, and time management. As a new way to raise awareness of mental health issues, social media-based health promotion initiatives have been tested for a variety of behavioral and cognitive health conditions. Young individuals with mental health concerns have fascinating therapy alternatives because to social media's instant accessibility, unlimited possibilities, and global reach [54]. A preliminary review reveals that youth mental health-focused mobile apps are acceptable, but further study is required to determine their efficacy. As digital media grows in importance, young people confront new possibilities and difficulties. Social media usage by teens may affect their mental health, according to growing evidence. Due to the rapid evolution of digital media, more study is needed [18].

Conclusions

People use technology effectively in the digital age; it does not "happen" to them. Although research indicates that most children won't experience damage from digital technology, there are still circumstances in which they may. We found in this research that there is a link between teenage depression and social media usage. Longitudinal studies are necessary since the bulk of research is cross-sectional. Social media has a big impact on young people's personal and social lives. Professional groups advise parents, educators, and institutions based on a body of conflicting and inadequate information about youth and digital technology. Policies limiting adolescent access to new technology may be ineffectual if they are required to foster social contact or build digital and relational (digitally mediated) skills for expanding economies. Before we can offer firm recommendations for parents, educators, or institutions, additional study is required to fully understand the influence of social media on mental health. It is vital for young people's health to reach them when they need help and at the appropriate times. Teens' wellbeing may increase if a variety of friendships and resources are available.

Disclosures

According to the ICMJE standard disclosure form, each author certifies: Payment and service: All authors reported receiving no financial help for their work. Financial relationships: All authors have confirmed that they have no financial affiliations to any groups interested in their work in the previous three years. Interpersonal interactions: Every author has declared that no other relationships or activities affected their work.

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