

Social Media and Mental Health: Depression and Psychological Effects

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Abstract: Social media has firmly entrenched itself in societal dynamics, as a vast majority of individuals devote numerous hours daily to platforms like Facebook, Instagram, and Twitter. While social media provides avenues for connection, entertainment, and information, an increasing body of research indicates that its usage can negatively impact mental health. This research paper seeks to explore the relationship between social media use and mental health among young adults. Current studies suggest a correlation between increased social media engagement and compromised mental well-being. Unfortunately, young adults, who are the most prolific users of social media, are particularly vulnerable to mental health challenges, heightening the significance of this association. However, the nature of the link between social media and mental health remains unclear. Through a Systematic Literature Review (SLR), findings are compiled to evaluate the impact of social media use on depression and other psychological effects in adolescents. A comprehensive search across various databases yielded 20 studies for consideration, with the majority utilizing a cross-sectional approach. Significant considerations arise due to methodological limitations associated with cross-sectional design, sampling methodologies, and measurement tools. Nevertheless, recommendations are provided for individuals, social networking sites, and society as a whole aiming to engage with social media in a manner conducive to psychological well-being.

Key Words: Social media, mental health, depression, psychological effects, social networking sites

Introduction

Social media is defined as a form of electronic communication which encompass various platforms, such as social networking websites and microblogging services, where users appears to establish online communities to exchange information, ideas, personal messages, and various content, including videos. While the term was first coined in 2004, the prevalence of social media has surged significantly in recent years, thereby, becoming a ubiquitous term in households. Individuals, whether engaged in live-tweeting events like bridal showers or creating Facebook profiles for their pets, seem to be more interconnected than ever (Barry et al., 2017). Approximately 77% of online adults presently participate in some form of social networking (Ivie et al., 2020).

Notably, Facebook users exhibit high levels of activity and engagement, with 63% visiting the site at least once daily, and 40% doing so multiple times throughout the day (Lin et al., 2016). The pervasive use of social media may be ascribed to the growing prevalence of mobile access to these platforms. As smartphones and tablets have gained immense popularity in recent times, a substantial portion of social media users are heavily dependent on mobile applications to connect with their preferred sites. In the past year alone, 300 million users exclusively accessed the platform through mobile devices (Berryman et al., 2018). In spite of the accessibility of social media to a broad demographic, young adults emerge as the most

active participants. Further research by Shensa et al., (2018) reveals that 82% of individuals aged 18-30 are active on Facebook, exceeding other age groups. Furthermore, this demographic constitutes the fastest-growing user segment, as experience evinced a remarkable increase from a mere 9% usage in 2018. Given the accentuating prominence of social media in the lives of young adults, it is indispensable to comprehend the potential impacts of this usage on their well-being.

Taking these perspectives into consideration, this research endeavours to assess the relationship between both the phenomena by assessing the recent or ongoing adverse impact of social media platforms on depression and other psychological effects, particularly by analysing the holistic consequences adolescents and adults.

Research Background

Social networking sites, or SNSs, serve as a protective factor against mental illness by facilitating social interaction, connection, and enabling users to express aspects of their identity and emotions relevant to their experiences (Aalbers et al., 2019). On the other hand, the environment presents numerous opportunities for miscommunications and unmet expectations, potentially exacerbating maladaptive tendencies and fostering a heightened sense of isolation. Holistically, the dynamics within the SNS landscape are as face-to-face interactions.

With the escalating membership on SNSs (Vidal et al., 2020), it has become increasingly considerable and crucial to explore both the potential advantages and disadvantages these platforms may pose to mental health.

Globally, depression has prevalence rates of approximately 4.9% and 7.4%, respectively (Dhir et al., 2018). These disorders, which are particularly characterized by high comorbidity, adversely impact the quality of social relationships. The psychological effects of these disorders thus play a substantial role in shaping social dynamics within online environments.

Research Significance

Social media is recognized as a potential source of support and connection, which provide its users with opportunities to interact, express their identity and share emotions related to their lived experiences. This positive aspect insinuates that social media can serve as a protective factor against mental illness (Hancock et al., 2022). On the other hand, the research showcases the risks associated with social media use, pointing out opportunities for miscommunications, unmet expectations and the potential exaggeration of maladaptive tendencies. This negative viewpoint suggests that the use of social media may contribute to feelings of isolation and, in some cases, may have adverse psychological effects, such as an increased risk of depression. By amalgamating the bidirectional interactions between affective disorders like depression and the social environment, the research stresses on the interplay between mental health and social media use (Vidal et al., 2020).

Besides, understanding how social media platforms can impact the quality of social relationships, influence the structure of social networks and shape the utilization of social capital for support provides profound and valuable discernment for individuals, researchers, academicians, and policymakers alike. Overall, the significance of this research can be gauged by fostering a more exhaustive comprehension of the psychological implications of social media, thereby, providing with informed discussions and potential interventions to promote mental well-being in the digital age.

Literature Review

Impact of Social Media Use: Recent Speculations

Using social media can lead to a number of detrimental psychological effects, such as elevated levels of anxiety, despair, obsessive behaviour, loneliness, and narcissism. Concerns over the possible drawbacks of social media use are developing as young people use it more and more often. To understand the causes linked to poor mental health outcomes and to create mitigation measures, it is necessary to do further research in order to identify such relationships (Meshi

& Ellithorpe, 2021). The notion that using the internet might negatively impact one's wellbeing is not brand-new. 93 households who had never used the Internet before were given computers and Internet connectivity in 1995 as part of the HomeNet initiative, which also monitored the families' mental health over a number of years. After one year of internet use, researchers concluded that an increase in depressive and lonely feelings has been linked to increasing internet use.

Named after Rosen, Cheever, and Carrier in 2012, "iDisorder" sums up the detrimental relationship between using technology and mental health (Malaeb et al., 2021). Recent investigations have shifted focus toward social media, probing into its potential deleterious effects on mental health. Similarly, another study (Keles et al., 2020) found a positive correlation between time spent on Facebook by high school students and manifestations of depression. The research is of the view that both the duration of online activity and engagement in Facebook image management may contribute to clinical symptoms of major depression. Further investigations by Meshi et al., (2021) revealed that more intense Facebook use among American university students was associated with increased feelings of loneliness.

In a similar vein, Lu et al. (2021) conveyed that an increased count of Facebook friends correlated with reduced emotional adjustment to college life, while more time invested on the platform was linked to diminished self-esteem. Malaeb et al. (2021) proposed that the quality of interactions on social media serves as a pivotal factor in determining mental well-being. Adolescents who reported lower friendship quality and engaged in frequent social media use were found to be less susceptible to experiencing depression. This body of research highlights the complex web of relationship between social media use and mental health, with the ongoing inquiry into the complications of these associations and the development of targeted interventions to mitigate potential negative consequences.

Is Young Population at Risk?

The high level of mental health prevalence among the young adult population is disconcerting, particularly considering their extensive engagement with social media. Grant and Potenza (2010) define young adults as individuals aged 18 to 29 years and underscore that this demographic is disproportionately impacted by severe mental health issues. According to Grant and Potenza's research, one out of three young adults undergoes depressive states between the ages of 18 and 25. Furthermore, it is highlighted that a majority of significant psychiatric problems emerge during early adulthood (Berryman et al., 2018), emphasizing the vulnerability of this age group to mental health concerns.

In addition to that, Yue et al., (2023) introduces the concept of ‘emerging adulthood’, a developmental phase signified by the adoption of adult tasks alongside the retention of certain adolescent responsibilities. Elementally, young adults encounter a more extensive array of developmental challenges than any other life stage, contributing to the complexities of their mental health experiences. Giving precedence to maintaining adequate sleep hygiene entails refraining from using digital platforms before bedtime and resisting the urge to check social media during nocturnal awakenings. Encouraging diverse engagement suggests following a variety of accounts to gain different perspectives and acknowledging that online personas are carefully crafted representations. Addressing cyberbullying requires promptly reporting incidents and implementing measures such as blocking or muting abusive accounts.

Exploring the Relationship between the Phenomenon from a Theoretical Lens

Various theories have been posited, offering insights into the potential ways in which social media may be linked to mental health. While these theories provide intriguing perspectives on the influence of social media on the mental health of young adults, none of them conclusively establish a causal relationship between social media use and a decline in mental health. The aim of this discussion is to explore plausible causes underpinning the observed connection between social media and issues regarding mental. The discussion of theoretical perspectives is systematically categorized into two sections: individual theories and social theories.

When it comes to the application of ‘Developmental Task Theory’, it primarily contributes to the understanding of the complexities associated with mental health difficulties during young adulthood. According to Ostic et al., (2021), societies establish age-specific expectations that serve as benchmarks for assessing individual success. Besides, developmental tasks, majorly influenced by human development and cultural values, evolve across different life stages. For instance, adolescence is characterized by expectations related to academic success and the formation of close friendships, while adulthood introduces tasks such as cultivating romantic relationships, establishing families, securing gainful employment, and engaging in civic responsibilities.

Moreover, concerning ‘Individual theories’, they concentrate relatively more on elucidating the impact of social media on individuals, taking into account their behaviours and personality traits, while overlooking its effects on their social relationships (Abi-Jaoude et al., 2020). In contrast, social theories examine how social media use influences individuals concerning their interactions with others and their broader environment (Ostic et al., 2021). It is important to note that these theoretical perspectives are

not mutually exclusive, while a combination of these theories is likely to contribute to shaping the interconnectedness between mental health and social media use among young adults. It is important to mention that the initial subset of theories under consideration pertains to individual theories, which aim to elucidate the impact of social media on individuals based on their distinct personality traits and behaviours. This exploration encompasses an examination of the repercussions of sedentary behaviours, particularly those promoted by social media, and the displaced behaviour theory, positing that such sedentary activities displace face-to-face interactions and physical engagement.

Having explored individual theories contributing to the comprehension of the association between social media use and mental health, attention now turns to social theories. These theories delve deep into the notion of how social media use influences individuals in their interactions with others and within the broader societal context. From a social theory perspective, the impact of social media on mental health is examined through its influence on individuals' perceptions, maintenance, and engagement within their social networks. This discussion on social theories begins by elucidating the broader influence of social relationships on mental health. Subsequently, several theories are discussed, shedding light on how social media use may shape these social relationships and, in turn, the consequential effects on mental health. In exploring the broader influence of social relationships on mental health, it is noted that throughout history, social isolation has been employed as a severe form of torture, causing profound psychological and physical deterioration, and even death.

As far as the Mental Health Foundation is concerned, it emphasises on the fundamental role of friendship in safeguarding mental health (Berryman et al., 2018). Moreover, it is disclosed that social support holds the capacity to counteract feelings ranging from hopelessness to avoidant coping states of mind. In contrast, social isolation and negative social interactions are correlated with depression and suicidal tendencies. Adults lacking social connections encounter notable psychological hurdles, with social isolation identified as a primary trigger for mental illness. On the other side, supportive relationships with friends, family, and neighbours, coupled with involvement in social activities like volunteering, are recognized for enhancing both mental and physical well-being. There is a consensus among researchers that social support is closely linked to improved mental health (Shensa et al., 2018). While it is evident that social relationships play a crucial role in bolstering mental health, there exists a level of divergence among researchers regarding which aspects of these relationships exert the most significant influence.

Hancock et al., (2022) has propounded three key aspects: social integration, which entail the overall

involvement in informal and formal social relationships; the quality of relationships, involving positive and strained aspects; and social networks, ascribing to the structural features of an individual's web of social relationships. The assertion is that maintaining a balance across all three aspects is crucial for experiencing positive social outcomes.

Research Methodology

Protocol and Registration

This research attempted to comply with the reporting guidelines as outlined in PRISMA, or Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement (Haddaway et al., 2022).

Eligibility Criteria

For this systematic review, the criteria for eligibility were determined based on the following parameters:

Exposure: Assessment of social media use.

Publication: Studies that have complete texts available in English that have been published in peer-reviewed journals. Research that did not fit inside the designated age range was one of the exclusion criteria. Research that only examined other online behaviours were not included, unless they included a measurement of social media usage.

Search Strategy

The databases ranging from PsycINFO and Embase to Social Sciences Citation Index (SSCI) as well as Medline, CINAHL and others were all thoroughly searched. A broad range of search words was used, including Boolean operators, Medical Subject Headings (MESH), and truncations.

Data Extraction

Mendeley reference management software facilitated the organization of identified papers. Following the removal of duplicates, a three-stage screening process was implemented to ensure adherence to eligibility criteria. The screening encompassed the evaluation of titles, abstracts, and full texts.

Data Analysis

Because the outcome measures varied considerably, it was decided that a meta-analysis would not be feasible. As a result, a narrative synthesis technique was used, which made it possible to thoroughly examine confounding, mediating, and moderating variables that are frequently disregarded in meta-analyses. Every study was carefully detailed, with a comparative analysis and synthesis of findings coming next.

Results

The initial literature search yielded as many as 486 articles across five databases. After removing duplicates (n = 236) and screening titles and abstracts,

a total of 55 papers were eligible for full-text review. Subsequently, 36 papers were excluded during full-text assessment, with reasons detailed in the PRISMA flowchart (Figure 1). Eventually, a total of 20 papers met the criteria for inclusion in the review.

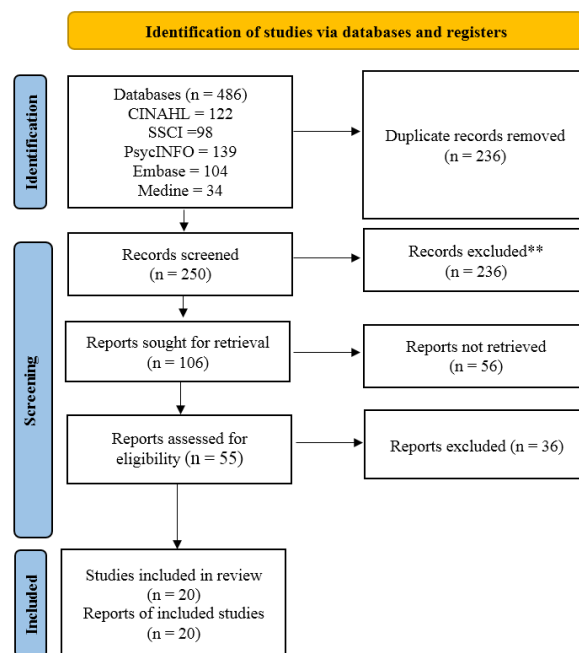


Figure 1: Prisma Flow Diagram (Haddaway et al., 2022)

Findings and Discussion

Within the ambit of mental health, this systematic review undertook a thorough examination of the dynamics governing the association between social media use and mental health outcomes, with a particular emphasis on depression. Drawing insights from 20 different studies, the amalgam of evidence revealed a confluence of risk factors, wherein time spent on social media, specific activities and manifestations of addictive or problematic usage emerged as salient contributors to mental health concerns, notably depression, anxiety and psychological distress. While the compiled findings suggested a general correlation between social media use and mental health problems, the complexity associated with this relationship has manifested discrepancies across studies. Researchers advocated for a cautious interpretation of results, acknowledging the multifaceted nature of the associations. Noteworthy is the limited exploration of complexity, with only select studies delving into potential mediating and moderating factors. Further, maladaptive use habits are also frequently associated with psychological harm, even if their interactions are intricate. It is now obvious that taking precautionary measures is necessary to minimise any potential drawbacks and promote a healthy relationship with digital technology on a social and personal level.

In particular, the emphasis was placed on insomnia playing a recurring role as a mediator between the use

of social media and feelings of depression. Additionally, specific studies identified perceived social support and rumination as supplementary mediating elements. Scholars recommended a more in-depth investigation into these aspects, coupled with an exploration of individual characteristics, socio-cultural impacts, environmental factors, motivations for using social media, dynamics of social comparison, considerations of self-esteem, factors in the surrounding context, deficits in physical activity, and the pervasive problem of cyberbullying. Moreover, the review pointed out that particular attitudes or behaviours like social comparison or reasons for engagement might exert a more profound impact on depression, anxiety, and psychological distress compared to mere quantitative measures like the frequency of social media use or the size of one's online social network.

Limitations

While the systematic review significantly enriched the existing literature on the mental health ramifications of adolescent social media use, several limitations warrant consideration. Principally, the preponderance of cross-sectional studies impeded the establishment of causal relationships, rendering it challenging to discern whether social media use precipitates mental health issues or, in a converse manner, if individuals contending with mental health concerns are predisposed to heightened social media engagement. The singular longitudinal study by Lin et al., (2016) was signified by a conspicuous absence of a control or comparison group, thereby limiting its capacity to establish causality conclusively. Secondly, methodological issues, including small sample sizes and reliance on convenience sampling in select studies, introduced constraints on the representativeness and generalizability of findings to a broader adolescent demographic. Thirdly, the uniform adoption of self-report measures across all studies introduced potential biases, including social desirability, information, and reporting biases. The discernment of participants' responses may have been influenced, thereby introducing variability in the reliability of outcomes.

Conclusion

With the above findings and subsequent discussion on them, it can be inferred that people in general may use social media as a means of escape or affirmation, which makes it difficult to provide simple explanations for the outcomes associated with mental health. This showcases the complexity of social media's influence. Also, maladaptive use behaviours are regularly linked to psychological damage, despite the complex interplay between them. It has become clear that preventative actions are needed to lessen any possible negative consequences and foster a positive connection with digital technology on both a personal and social level.

Recommendations

For Individuals

First and foremost, individuals are advised to actively monitor and restrict their overall time spent on social media platforms, incorporating self-imposed time boundaries and breaks. Disabling notifications is recommended to minimize disruptions and mindless scrolling. Prioritizing proper sleep hygiene involves avoiding platform use before bedtime and resisting nocturnal awakenings for social media checks. Diverse engagement is encouraged, suggesting following a range of accounts to gain varied perspectives and recognizing that online personas are curated representations. Combatting cyberbullying involves reporting incidents and taking measures such as blocking or muting abusive accounts. Finally, focusing social media engagement on postoperative experiences like connection and entertainment, rather than seeking validation, is proposed.

For Platforms/Designers

Platform designers are urged to explore algorithmic adjustments to limit content fostering social comparison, depression, or anxiety. Implementing prominent warnings or usage cut-offs for teenagers and young adults at higher risk of mental health issues is recommended. Facilitating tools for users to monitor and set limits on time spent on sites, along with introducing friction for endless browsing habits, is advised. Enhancing content moderation and anti-harassment protections, especially for minority users facing disproportionate abuse, is essential. Allocating resources for research into platform architectures and user experience patterns that positively impact well-being is encouraged.

For Society:

Importantly, society is encouraged to introduce social media literacy programs, commencing in schools, to educate about healthy usage habits and potential mental health risks. Enhancing mental health resources for individuals grappling with social media-related emotional issues is recommended. Encouraging open dialogue about the pros and cons of social media, fostering a balanced adoption with thoughtful usage, is essential. Advocating for continued multidisciplinary research and discourse on the nuanced bidirectional relationship between social media and mental health is emphasized.

In a nutshell, the convergence of consciousness, thoughtful participation, and further research initiatives holds the potential to change the digital environment into a force that favourably impacts societal well-being as the social network grows more ingrained in society. It is necessary to adopt a comprehensive strategy that takes into account platform design concerns, individual accountability, and community efforts in order to

promote a peaceful coexistence with the ever-changing social media landscape.

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