Review

Social Media Usage and its Implications on Mental Health a Review

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Abstract: With more homes, businesses, and people having access to the Internet recently, the usage of social media and social networking websites has expanded significantly. Multiple social media platforms are available and more people from the public, companies, non-profits, and other groups are utilizing them. Therefore, online engagement is now a common aspect of daily life for a population of billions globally with a wide range of demographics. Social media users can share their sentiments, ideas, and nearly all aspects of their lives. Therefore, social media information offers vital new opportunities for academic scholars to investigate a diverse subject and uncover hidden patterns or trends to have a deeper understanding of complex issues. The fact that there are millions more social media users than there were in 2020 and 2021 shows how pervasive social media has become in our daily lives. As social media usage has increased, so have worries regarding its effect on the well-being of humans and its impacts on mental health. The study takes a closer look at comparing the effect on two different age groups adults and teenagers exploring the differences and similarities of behavior, as both groups react differently while responding to psychological and emotional responses on social media. This research paper further aims to study the impact of social media communication on various platforms like Facebook, Twitter, and Instagram and investigates the potential risk and its consequences on mental health.

Keywords: Mental Health, Social Media, Twitter, Instagram, Teenagers

Introduction

Social media may be characterized as interactive technology for communication that uses networks to create and share thoughts, knowledge, and numerous other types of communication. Instagram, Facebook, and Twitter are a few popular social media websites through which humans can share their thoughts, videos, and photos in community groups. Approximately 4.8 billion users are active on social networking sites and this number is growing exponentially which means around 59.9 percent of users worldwide are proactively using social media (Topcu *et al*., 2023). Social Networking Websites play a big role in teenagers today. Surveys show that around 98% of teens are active on social networking websites (Madden *et al*., 2013) and among them, 75% of teenagers have active accounts on any one social media platform, and around 50% of them are addicted to their phone (Reid Chassiakos *et al*., 2016). Not only teenagers (Keles *et al*., 2020; Lancet, 2022; Caba Machado *et al*.,

2023) but also adults are deeply immersed in these platforms. Around 2.85 billion adults are using social media websites for an average time of 2 h and 24 min (backlinko. com) (Masiya and Lubinga, 2023). An interesting fact about social media usage is if someone joins social media at the age of 16 and uses it till the age of 70 then approximately, he would have spent 5.7 years of his life span on it**.** 762 people of Indian heritage have taken part in this study. In the age category of up to 35 years old, 69.30% of the overall population is male and 30.70% is female, according to the statistical information (Sharma *et al*., 2022). Sharing your opinions on these websites raises the risk of social acceptance which further can impact mental health in a both positive and negative manner. If we go through the statistics among every five adolescents one seems to be the victim of mental illness, like suicide and depression (Nesi, 2020). Youngsters to be socially acceptable make use of certain augmented reality tools and filters. Moreover, the tendency to compare one lifestyle with other individuals also results in

dissatisfaction at multiple levels, which again is a cause of mental illness. In addition to these, people who already are mental health patients have a great fear of being socially unacceptable (Reece and Danforth, 2017). Individuals who are proactive on these websites may have the tendency to share their opinions and abilities for various comparisons and this envy sometimes leads to depression (Pabarčiūtė and Karnickas, n.d.). Stefanone, Lakoff, and Rosen (Wu and Wei, 2020) the authors have revealed that these comparisons can harm mental health as these comparisons seek the approval of the community for being socially acceptable. Looking thin, smart, and beautiful, affects the eating order of many young and adult women. Also, performance indicators like the number of followers likes and no comments play a significant role in one's life. Especially in adolescence, these indicators are treated as a benchmark for being socially acceptable. This may lead to mental illnesses like bipolar disorder (25%) and depression ((20%) (Naslund *et al*., 2019). Social networking websites are blamed for increasing mental health disorders among young generations. The World Health Organization (WHO) reports that 20% percent of youth globally experience a variety of mental health issues (Belfer, 2008). The data show that by the time a person is 18 years old, 75% of mental health disorders will have manifested, compared to 50% of mental health problems by the age of 14 (Keles *et al*.,2020). This study has proven that depression and anxiety are the highest common well-being issues in the adolescent period. Both anxiety and depression have affected 70% of young people in the past 24 years (Lancet, 2022). To find the power of the usage of social media on one's

mental health is thereby a necessity. Social media can be thought of as a swing that while in height can boost performance and self-confidence but once the swing comes down can make someone's life as hell. This fact can also be supported by a report published by the American Academy of Pediatrics asserts that social media builds connections and fortifies relationships, hence lessening feelings of isolation and feeling alone and tangentially enhancing mental health. These platforms if used in the right manner can be an effective medium to improve the health of people suffering from mental disorders as the treatment care and other services can reach patients (Naslund *et al*., 2019). This research presents a meta-analysis of several reviews that were done to determine how social media use affects adult and mentally healthy adolescents. One possible explanation for the ongoing rise in social media usage is loneliness (Caba Machado *et al*., 2023).

Methods

The papers highlighting meta-reviews, systematic reviews, and narrative reviews on the usage of social media and its associated mental health issues were selected from top journals like Elsevier, Science Direct, psychology, and medicine/ psychiatry. The papers were then segregated into two classes, adolescents (Age Group of 13-17) and adults (Age group 18+). Below we present the summary of the analysis being carried out by various researchers of this field. The authors have studied the meta-reviews of previous researchers for both classes. The summary of the number of meta-reviews studied along with the count of papers and the categories of journals are presented in Tables (1-2).

Table 1: Knowledge about the research was analyzed to determine how social media use affects adolescents' mental health (aged 13-17)

Nature of review	Authors	Count of papers/Year	Journal	Research outcome
Meta-analysis of reviews	Ngussa *et al*. (2020)	62/(2011-2018)	Medicine/Psychiatry	Most of the users suffered from depression
	Coyne *et al*. (2020)	123/(2009-2020)	psychology	Research revealed that the association between social media use and health markers was only weak
	Tartaglia and Bergagna (2022)	12/(2012-2019)	Medicine/Psychiatry	The study demonstrated the detrimental effects of Social Networking Sites on those who are depressed
	Ivie *et al*. (2020)	55/(2009-2017)	Psychology	The authors found that there was a very minor but significant association between mental health and depression when it comes to the usage of social media
	Deng *et al*. (2021); Yoon *et al*. (2019); Alonzo *et al*. (2021)	50/(2012-2018)	Medicine/Psychiatry	The study revealed that frequent usage of social media leads to poor mental health. The authors also revealed that screen time higher than 2-3 h a day can have a detrimental effect on overall health
	Vahedi and Zannella (2021)	44/(2006-2020)	Psychiatry disorders	High usage of social networking websites leads to depressive symptoms
	Cataldo *et al*. (2021)	44/(1999-2019)	Medicine/psychiatry	The authors revealed a positive correlation between the usage of social media and the Depression
Narrative reviews	Neophytou *et al*. (2021)	Self-review of 30 outcomes	Medicine/Psychiatry	Social media use among youngsters is associated with increased mental discomfort and suicide rates

Table 2: Details of literature studied to understand the impact of social media usage on the Mental Health of adults (Aged 18 and above)

Nature of review	Authors	No of Studies	Journal	Research outcome
Narrative review	Zhong *et al.* (2021)	Self-review with 558 participants	Science direct, computers in human behavior	This study investigates the possible relationship between social media use and mental wellness by putting out an empirical framework to look at how people utilized social networks and how they affected their mental health and changes in health-related behaviors in Wuhan, the first epicenter of the worldwide COVID-19 epidemic. During a worldwide epidemic, treating symptoms of stress can be difficult. Some people may choose to use tried-and-true coping mechanisms, while other individuals may concentrate on developing tolerance
Narrative review	Abi-Jaoude *et al.* (2020)	Self-review with 500 participants	Science Direct International Journal of information management data insights	Several research has found a link between the use of social media and psychological problems including anxiety and depression. The current research includes an 8-year longitudinal study that investigates this relationship at the intra-individual level. To get a deeper understanding of the reasons behind the growth in mental health issues between adolescent and young adult years, we urge academics to investigate the context and content of social media usage in addition to other variables
	Sharma *et al.* (2022)	1059,258 tweets 726 participant		The study revealed that trivialization and stigma are common when social media is extensively used.
	Reece and Danforth (2017)	166 individuals and 43,950 participants		The current study utilized computational machine learning techniques to screen for depression through Instagram photos. Human ratings were effective in differentiating between posts made by individuals with depression and those who were healthy. Our findings demonstrate that visual social media data can be analyzed for emotional content using scalable, computational methods
	Gao *et al.* (2020)	4872 participants		The authors focussed on the role of government in overcoming psychological health concerns especially mental illnesses like depression and anxiety

To conclude, frequent social media use shows a positive correlation with increased depression in teenagers, shedding its potential adverse impact on their mental health (Keles *et al.*, 2020; Radovic *et al.*, 2017) leading to an increase in stress and anxiety. However, in adults' normal usage does not directly affect mental health and its contribution is negligible. But excess of anything is bad therefore excessive usage of social media may lead to depression and anxiety in adults too. The conclusion of the literature review has been summarized in Tables (1-2). For adults, if social media usage is managed carefully, it has the potential to enhance mental health by providing a platform for sharing positive news and offering emotional support.

The next section reveals what impact the usage of three very powerful social media platforms, Twitter, Instagram, and Facebook has on the mental and physical condition of its users.

Impact of Usage of Three Powerful Platforms Twitter, Facebook, and Instagram

The prevalent availability of the internet has increased the usage of social media and social networking websites in the coming years (Yassin *et al.*, 2022; Nesi, 2020; Naslund *et al.*, 2020). As the population is demographically dispersed, therefore, online interactions are very popular among billions of people worldwide. Many people post their thoughts, opinions, and feelings on various websites including the three very popular websites: Twitter, Instagram, and Facebook (Nesi, 2020; Kaur and Sharma., 2020) therefore it is important to study the impact of their usage on Mental Health during the period of a pandemic. Twitter is a microblogging platform where users create "tweets" that are sent to their followers or other users. Purohit *et al.* (2013) described a tweet as a brief communication, usually referred to as a post, that is just 140

characters long (Purohit *et al*., 2013). Tweets may offer helpful information or provide updates on user actions. The widespread usage of social media during COVID-19 has spread the flow of information. Since 2020, COVID-19 has become the most trending topic on Twitter (Chandrasekaran *et al*., 2020; Ahmed *et al*., 2021; Boon-Itt and Skunkan, 2020). (Story of COVID-19 mental health impact using Twitter the University of Essex) In their study the authors have highlighted the impact of tweets on the mental health of human beings. The authors have used a model which is based on machine learning and detects the level of depression. Australia's New South Wales is where this study was carried out. The model processed 94 million tweets and revealed that there was a sudden jump in the number of cases of Depression which resulted in an outcome of fatigue, weight loss, and suicidal attempts. The authors have used various NLP techniques to find the impact of tweets on mental health (Inamdar *et al*., 2023; Marshall *et al*., 2022; Sengupta *et al*., 2020). Here, the authors did a thematic analysis of text-based unstructured data and found that there is a hidden structure behind every tweet (Arias *et al*., 2022; Bennett, 2020). In Iraq, another study was carried forward by Ahmad and Murad (2020). The authors highlighted that individuals who are in the age group of 18-35 have a higher level of chance of suffering from anxiety and depression (Ahmad and Murad, 2020).

Another widely used is Instagram (Frison and Eggermont, 2017; Staniewski and Awruk, 2022; Faelens *et al*., 2021), on this platform users may post stories and reels and followers follow the pages. Instagram primarily serves as a platform for sharing images and videos. Founded in 2010, Instagram is a photo-sharing social networking site that lets users add both photographs and videos to their accounts.

(Sharma *et al*., 2022; Moreton and Greenfield, 2022) users can follow an infinite number of users and communicate with one another through "likes" and "comments". The usage of captions geotags and hashtags (#) can improve user interaction with a user's post. Instagram (Gruzd *et al*., 2018) is the second-most popular social media platform after Facebook, with over 23 million users in the UK alone and 52 million photographs submitted daily. Instagram stands out as an intriguing platform due to its abundance of users' ideas, viewpoints, and experiences. Instagram does, however, have a negative side as well; It often conveys an image of a perfect, carefree life while distorting reality. Encouraging ideals that are impossible to meet. Instagram specifically does this with tools for modifying images and a variety of filters that are no longer revolutionary. In a 2017 poll by the Youth Health Movement, 1,500 young people between the ages of 14 and 24 selected Instagram (Noon, 2020) as the most unfavorable social media network for their mental health, albeit the reason for this ranking was not revealed. Sharma *et al*. (2022). Although few individuals find Instagram's messaging to be authentic, many will stop at nothing to meet unattainable goals. People compare themselves to others in terms of appearance, knowledge, or lifestyle. A common and well-known phenomenon, social comparison has a significant influence on self-esteem. An Indian viewpoint on how Instagram affects young people's mental well-being, colorism, and social comparison. Data Insights: International Journal of Information Management, 2(1), 100057. The study revealed that there is a negative correlation between the age of the user and mental health, another parameter of the study included the usage of Instagram and its effect on mental health and it was revealed that individuals who spent more time on Instagram and had a huge quantity of supporters are more prone to mental illness. However, gender does not impact mental health issues.

Other than Twitter and Instagram millions of people use Facebook for a variety of purposes, including education. Facebook has recently risen to prominence as one of the most crucial channels for communication among young people about both personal and academic matters. Facebook is specifically used by some students and teachers as a communication tool during the learning process (Ngussa *et al*., 2020). Many people now use social networking sites as part of their daily lives. Facebook (Sharif *et al*., 2021) is currently the largest social media site, with over 2.5 billion users of common Social Networking Sites (SNS). Even though some people (2.1billion) just sometimes visit. Several of them spend a significant amount of time on Facebook each day, occasionally losing control of their use and growing mental necessity to continue using the internet (Brailovskaia *et al*., 2018). Young adults today communicate with peers less in person than previous generations did. Instead, they spend their time on Social Networking Sites (SNS) which may harm their well-being. Passive use of SNS, such as viewing pictures and statuses posted by other users, frequently causes feelings of jealousy and dissatisfaction because other users are perceived as being happier than themselves. Such unpleasant emotions are detrimental to well-being. The active use of Facebook such as sending messages, updating statuses, and sharing photos encourages a sense of social support and social togetherness. Maximum researchers have demonstrated Facebook's potential for maximizing student engagement. According to Dheleai and Tasir for instance, university students expressed

favorable opinions of using Facebook for online interactions with their friends. Particularly, the results showed a favorable correlation between academic success and students' perceived online involvement via Facebook (Ulvi *et al*., 2022). University students acknowledged using Facebook for amusement, relaxation, and passing the time. Additionally, they stated that using Facebook had a beneficial impact on their academic achievement, supporting the notion that this did not lower the quality of their education. Jha *et al*., have shown that Facebook (Jha *et al*., 2016) use harms students. List burning eyes, trouble sleeping, and headaches as side effects of excessive Facebook use. Facebook use has various detrimental effects on academic achievement in addition to its physical and mental effects. Rouis *et al*. (2017) studied the effects of Facebook use on students' academic accomplishment in the context of self-control and trust and concluded that university students with extroverted personalities who use Facebook a lot perform poorly academically. However, they also showed that more self-regulatory students were better able to manage their online presence and avoid any potentially negative Facebook impacts. This implies that the negative impact of Facebook usage relies on the methods used to use it. Furthermore, it can be concluded that excessive usage of any of the three platforms can have an adverse result on the mental state of human beings. Tables (1-2) summarize the results of the study for the adult age group.

Conclusion

Social networking sites are a great way for individuals to interact, communicate, and support one another. Social media is another tool that many people with mental health problems utilize to connect with others and locate support networks. If the right information and encouragement are resorted out, social media may help Epidemiologic. This can foster a sense of community and help sustain relationships that might otherwise be lost. This may enhance mental health results. Furthermore, people who use SNSs frequently have less time for physical exercise affects once well-being and these people work very little on physical activities such as jogging and cycling thereby negatively affecting their mental health.

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Author's Contributions

Puneet Kaur: Conceptualization methodology writing original draft review edited.

Deepika Chaudhary: Methodology data collection formal analysis, visualization.

Jaiteg Singh: Investigation, resources supervision.

Ethics

This article is original and contains unpublished material. The corresponding author confirms that all of the other authors have read and approved the manuscript and no ethical issues involved.

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