

Social Media and Schizophrenia: A Review

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ABSTRACT

Social media has become a cornerstone of society in the 21st Century, with billions of users around the world logging on to platforms each day. Due to social media's rise to ubiquity, modern literature has examined countless facets of the technology, including but not limited to its relationship with psychiatric conditions such as schizophrenia. This review examines the extant research pertaining to social media and schizophrenia. Research demonstrates that social media offers both benefits and drawbacks to individuals dealing with schizophrenia. Social media can provide individuals with schizophrenia with communities they can relate to and aid with social interaction. Additionally, social media offers benefits by allowing clinicians to identify individuals with schizophrenia without physical interaction through individuals with schizophrenia's unique posting patterns. However, social media users with schizophrenia may also be negatively exposed to stigmatizing or unreliable information regarding their disorder. Social media can also serve as a means of treatment, as initiatives such as Horyzons, MOMENTUM, EMBRACE, and PRIME have modeled their treatment of schizophrenia based on social media's structure. These initiatives have garnered hope that social media can be harnessed to treat conditions such as schizophrenia and improve the quality of life of individuals dealing with schizophrenia. Overall, this paper offers an overview of current literature on social media and schizophrenia that can be used to inform future prevention and intervention efforts.

Keywords: social media; schizophrenia; psychiatry; treatment

Content Overview

Table 1 provides an overview of the review's contents following the paper's structure.

Introduction		
Literature Review	Social Media	Mechanisms of Social Media Use and Addiction Complex Effects of Social Media: Benefits and Drawbacks
	Schizophrenia	Schizophrenia Defined Risk Factors: Genetic, Physiological, and Environmental Differences in Brain Structure and Function
Methods	Search Terms	
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	Exclusion Criteria	
Results	Social Media and Schizophrenia	Benefits of Social Media to Patients With Schizophrenia Detriments of Social Media to Patients With Schizophrenia Identification of Patients With Schizophrenia Treatment of Patients With Schizophrenia
Discussion	Implications	Identification Treatment
	Limitations	Observational Approaches Small Sample Sizes Variability Across Social Media Users and Platforms
	Future Directions	Experimental Approaches Interviews Larger Samples Longitudinal Studies
	Conclusion	

INTRODUCTION

In 2025, the Pew Research Center found that 84% of American adults use the social networking site YouTube, 71% use Facebook, and 50% use Instagram (*Social Media Fact Sheet*, 2025). This reflects social media's ubiquity in today's society and its place as a cornerstone of daily American life. Social media has become incredibly prevalent due to its inherently addictive mechanisms and presents both drawbacks and benefits to users.

On the other hand, approximately 0.5% of Americans suffer from the psychiatric disorder schizophrenia (Wu et al., 2006). This review will provide an overview of the relationship between schizophrenia and social media by first discussing background information on social media and schizophrenia separately, and then the intersection between the two topics and applications of this overlap.

LITERATURE REVIEW

Mechanisms of Social Media Use and Addiction

According to the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5), there is no clinical diagnosis for "social media addiction" or tech addiction of any kind, aside from Internet Gaming Disorder (American Psychiatric Association, 2013a). However, there is mounting evidence that suggests internet use is addictive (Kuss et al., 2014; Griffiths, 2005; Petry et al., 2018).

Distinguished Professor of Cognitive and Brain Sciences from the University of Macau, Christian Montag, and his colleagues discuss the structures of social media that make it so addictive in a 2019 publication. These authors identify the addictive components as: endless scrolling and "flow," the endowment and mere exposure effects, social pressure, the curated stream of content, social comparison and social reward, and the Zeigarnik and Ovsiankina effects (Montag et al., 2019). The following paragraphs will discuss each of these elements in detail.

Montag and his colleagues discuss "flow," a concept which was developed by psychologist Mihaly Csikszentmihalyi. Flow is "the way people describe their state of mind when consciousness is harmoniously ordered, and they want to pursue whatever they are doing for its own sake" (Csikszentmihalyi, 1990). While flow is a positive concept by itself, social media platform developers have harnessed flow to induce users to pursue lengthy scrolling, as described by Montag and colleagues. To keep users online, developers ensure that the flow of content is neither too easy, which can lead to boredom, nor too difficult, which can produce anxiety (Montag et al., 2019). They also explain that flow's natural distortion of time and social media's endless stream of content are used to ensure users stay online (Montag et al., 2019). There are psychological elements that make social media addictive, which include the endowment and mere exposure effects (Montag et al., 2019). In the words of the American

Psychological Association (APA), the endowment effect is “the tendency of people to place a higher value on items once they own them or once these have been associated with the self in some other way” (*Endowment Effect*, 2023).

When referring to social media, the endowment effect could be that individuals who spend time on social media curating their feeds and profiles feel as though it is more difficult to let go of the site. The mere exposure effect occurs when “individuals show an increased preference (or liking) for a stimulus as a consequence of repeated exposure to that stimulus,” according to the APA (*Mere Exposure Effect*, 2018). The mere exposure effect plays out similarly to the endowment effect on social media: the more time individuals spend on social media, the more difficult it will be for them to let go.

Montag and his partners also identified social pressure as a contributor to social media’s addictiveness, explaining that users are encouraged to “communicate fast and often” through pressuring mediums to show when a message is delivered and read by the receiver (Montag et al., 2019). Similar to social pressure, social reward also pushes users to spend more time online. “Likes” signal positive feedback to a post and are interpreted by the brain’s reward center, the ventral striatum (Montag et al., 2019). Even further, “longer and [more] frequent usage of the Facebook app on smartphones” is associated with “lower gray matter volumes of the nucleus accumbens,” which is associated with higher addictive tendencies. Social media platforms also curate users’ feeds through algorithms that push content that they believe users will enjoy based on posts the users like (through thumbs-ups and hearts) and what they linger on (Montag et al., 2019). Because users are met with content they like, their social media experience is enjoyable, and they therefore do not want to log off.

Finally, Montag (2019) and his colleagues explain how the Zeigarnik and Ovsiankina Effects make social media sites addictive. The Zeigarnik Effect, according to the APA, is “the tendency for interrupted, uncompleted tasks to be better remembered than completed tasks” (*Zeigarnik Effect*, 2018). The Ovsiankina Effect is the tendency for humans to want to finish these interrupted tasks (Montag et al., 2019). When users’ time on these apps is interrupted by responsibilities or other factors, they feel a strong urge to return to them due to these effects. These aspects, whether mere psychological facts of human nature or mechanisms manufactured by app developers, keep users on social media sites for long periods of time, making the applications addictive.

Complex Effects of Social Media: Benefits and Drawbacks

Despite social media’s addictive nature, it offers some positive elements to its users. For instance, it can be seen as a means of communication, connection, and inspiration. Sally Quinn, a psychology researcher at the University of York, explains that social media can help fulfil social interpersonal needs, sometimes more so than face-to-face interaction can (Quinn, 2019, pp. 414–430). For example, social media allows for social interaction to occur at any time or place that the user wishes. This is not possible with face-to-face interaction, which often requires planning and coordination. Additionally, Quinn shares that

social media can sometimes lead to disinhibition, allowing for “self-disclosure behaviors” which can cause the meaningful cultivation of relationships for those who may have a difficult time communicating in person (Quinn, 2019, pp. 414–430).

Quinn (2019) also shares that social media can be a source of support. For example, one user posted about their experience dealing with cancer on a popular social media site, which led to emotional support and support through the sharing of information pertaining to the disease, predominantly from users whom the original poster did not know personally. This example highlights how social media can lead to the formation of new communities that support one another and share experiences. While social media can create new communities, Quinn (2019) notes that it can additionally strengthen pre-existing bonds, highlighting the benefits of social media to its users.

Although social media offers some benefits to those who utilize it, it can also harm users as it is associated with various disorders and allows for the propagation of bullying and damaging stigmas. Andreassen et al. (2016) note that addictive use of technology, including social media, and symptoms of mental health conditions such as obsessive-compulsive disorder, attention-deficit/hyperactivity disorder, and anxiety were positively correlated. Social media has also been shown to increase the likelihood “of exposure to harm, social isolation, depressive symptoms, and bullying,” leading to increased social comparison pressure or social isolation (Naslund et al., 2020; Best et al., 2014). Further, social media site visits have been positively correlated with “greater depressive symptoms, anxiety, and risk of suicide” (Naslund et al., 2020). Importantly, while these studies draw correlations between negative mental health symptoms and social media usage, this does not mean that it can be concluded that this correlation is causal. The extent to which social media usage determines the experience of mental health disorders remains unknown.

Based on differing factors, including mental health status, social context, and existing psychological vulnerabilities, individuals may be impacted by social media differently, experiencing benefits and drawbacks to different extents. Thus, it is important to examine populations specifically to avoid generalization. In this review, schizophrenia will be analyzed specifically.

Schizophrenia

The APA Dictionary of Psychology defines schizophrenia as “a psychotic disorder characterized by disturbances in thinking (cognition), emotional responsiveness, and behavior, with an age of onset typically between the late teens and mid-30s” (American Psychological Association, 2023). According to the DSM-5, to be diagnosed with schizophrenia, patients must experience disruptions characteristic of the disorder for six months and exhibit two or more of the following symptoms for a prolonged time throughout a month: “Delusions, hallucinations, disorganized speech (e.g., frequent derailment or incoherence), grossly disorganized or catatonic behavior, negative symptoms (i.e., diminished emotional expression or avolition)” (American Psychiatric Association, 2013b).

The DSM-5 also lists risk factors for the development of schizophrenia, including genetic, physiological, and environmental factors. Genes contribute to determining the risk for schizophrenia; however, most individuals diagnosed with the disorder have no family history of schizophrenia or other psychotic disorders (American Psychiatric Association, 2013b). Rather, genetic influence is caused by a combination of risk alleles, some of which are also associated with other disorders such as bipolar disorder, depression, and autism spectrum disorder (American Psychiatric Association, 2013b).

Physiological factors that increase the risk of schizophrenia include complications with hypoxia, stress, infection, malnutrition, maternal diabetes, and other medical conditions during pregnancy, birth, and shortly afterward, as well as greater paternal age (American Psychiatric Association, 2013b).

Finally, environmental risk factors include season of birth, with children born in some locations during the late winter and early spring and those born during the summer in other locations being more likely to develop schizophrenia (American Psychiatric Association, 2013b). Further, risk is higher for children brought up in urban environments, with about one-third of schizophrenia diagnoses emerging from children who grew up in urban areas (Krabbendam & van Os, 2005). Moreover, African Americans are three times more likely than White individuals to develop the disorder (Bresnahan et al., 2007). This is likely due to gaps in healthcare and access. However, it is important to note that the majority of children who are exposed to these risk factors do not go on to develop schizophrenia (American Psychiatric Association, 2013b). These risk factors do not directly cause the development of schizophrenia and reflect an increased incidence of the disorder due to a combination of other factors present under these conditions.

Individuals with schizophrenia experience functional and structural abnormalities in the brain. For instance, according to Karlsgodt and colleagues (2010), the most consistent findings in MRI studies of schizophrenia are “reduced gray matter volumes of the medial temporal, superior temporal, and prefrontal areas” (Karlsgodt et al., 2010). These regions are responsible for “episodic memory, processing of auditory information, and short-term memory/decision making” (Karlsgodt et al., 2010). The gray matter deficits are partially genetic and depend on prenatal risk factors, particularly hypoxia (Karlsgodt et al., 2010). Additionally, changes in white matter of the brain appear by the patient’s first psychotic episode and are also present in individuals at risk of developing schizophrenia, suggesting these changes directly contribute to the onset (Karlsgodt et al., 2010). Further, individuals with schizophrenia and its related disorders have difficulty suppressing the brain’s default mode network during task performance, leading to impaired concentration and performance (Karlsgodt et al., 2010). Although schizophrenia and social media seem to be widely different topics, they share some overlap. Because schizophrenia drastically impacts social functioning and interpersonal relationships, examining how individuals with schizophrenia utilize social media is important. Social media platforms can serve as a pathway for connection and support, but may also introduce unique challenges for individuals with schizophrenia.

METHODS

A literature search was conducted over two months using Google Scholar and the following search terms: social media, schizophrenia, technology, and psychosis. Additional search terms included “social media and schizophrenia” and “social media and psychosis.” Inclusion criteria included publication in peer-reviewed journals and discussion of social media and/or schizophrenia and closely-related conditions including psychosis. Exclusion criteria included non-peer-reviewed published work (e.g., conference abstract, dissertation, etc.), discussion of psychiatric conditions other than schizophrenia and/or discussion of social media unrelated to problematic use or its contribution to schizophrenia. Duplicate records were removed.

RESULTS

The literature search resulted in the identification of relevant abstracts. Following abstract screening, 48 papers were full-text screened. 31 papers met the inclusion criteria of discussing the topics of schizophrenia and/or social media and are included here. Papers that did not discuss either of these topics were not included. Results are organized by theme below: the benefits of social media to patients with schizophrenia, detriments of social media to patients with schizophrenia, the utility of social media in the identification of patients with schizophrenia, and social media and treatment resources for patients with schizophrenia.

Benefits of Social Media to Patients With Schizophrenia

Social media sites can benefit patients with mental health disorders like schizophrenia by offering assistance through social interaction, entry to a supportive group of people going through similar circumstances, and the advertisement of utilization and continued use of supportive services (Naslund et al., 2020). Naslund explains that social interaction may be easier on social media, especially for those with weaker social functioning, as it does not necessitate fast responding or the interpretation of non-verbal signals such as body language (Naslund et al., 2020). Additionally, Naslund further explains that the anonymity provided by social media platforms can allow individuals with highly stigmatized conditions, like schizophrenia, to connect with others, search for information, discuss, share, and cope with experiences related to their conditions (Naslund et al., 2020) without having to disclose their identity. Further, these individuals may create new bonds or reestablish old ones, allowing them to feel less isolated (Naslund et al., 2020). In fact, according to Hein, 61% of individuals struggling with a psychotic disorder agreed that their utilization of the internet facilitated their socialization (Hein et al., 2024). Naslund and colleagues go further to explain that social media can aid recovery through this newfound support network that patients can build on social media (Naslund et al., 2020). Despite social media’s positive impacts, it can also negatively affect those diagnosed with schizophrenia.

Detriments of Social Media to Patients With Schizophrenia

While Naslund and colleagues (2020) identified several benefits that social media can provide to individuals with mental health conditions, they also identified a number of challenges that social media may bring. These challenges include: “increased risk of exposure to harm, social isolation, depressive symptoms and bullying,” “social comparison pressure and social isolation after being rejected on social media,” and the replacement of in-person exchanges that “may contribute to greater loneliness and worsening of existing mental health symptoms” (Naslund et al., 2020). Naslund also cites cyberbullying, online harassment, privacy risks, misleading information, and stigma as potential challenges for individuals with mental health disorders who utilize social media (Naslund et al., 2020). In a 2022 study, around half of the posts on Twitter pertaining to schizophrenia were stigmatizing (Jilka et al., 2022). Another study found that the three different stereotype categories disseminated on social media regarding schizophrenia were dangerousness, incoherence, and relativization (Alvarez-Mon et al., 2019). Another study reported that 23% of individuals with a psychotic disorder felt “frustrated... about their internet use,” and 20% felt paranoid about it (Hein et al., 2024). Together, these works highlight the potential dangers of using social media among those with mental health conditions.

Identification of Patients With Schizophrenia

Social media can also be harnessed to identify and treat schizophrenia in some individuals. Patients with schizophrenia have a unique utilization of social media that allows them to be identified without any in-person interaction. Youth who experienced one psychotic experience were more likely to post less saturated images and fewer images with faces in them compared to members of a control group (Saha et al., 2017). More specifically, it was found that individuals with schizophrenia more frequently posted images with red and black coloring and blurred the faces in the photos (Jankowski et al., 2022). One 2017 study of Twitter data predicted psychotic relapse accurately 88% of the time through users’ linguistic choices (Birnbaum et al., 2017). In a study of 52,815 Facebook posts by individuals with recent-onset psychosis, linguistic patterns of individuals with schizophrenia were identified. The study found that, in the months before the first episode of psychosis that resulted in hospitalization, youth increasingly used words related to anger and death, but used words related to friends less (Birnbaum et al., 2019). Additionally, in this time frame, they co-tagged and friended others increasingly prior to a relapse hospitalization (Birnbaum et al., 2019). Further, individuals with schizophrenia were more likely to post on social media after midnight or early in the morning, which is frequently observed when psychosis worsens and social behavior degrades (Birnbaum et al., 2019). In a 2024 study, Suarez-Llevat and colleagues note that social networks where writing is the dominant means of communicating are the most important in creating algorithms that recognize patterns to classify individuals who possibly deal with schizophrenia (Suarez-Llevat et al., 2024). Social media’s benefits for those with schizophrenia do not end with identification, but rather extend into the treatment of the disorder.

Treatment of Patients With Schizophrenia

Many promising social media-inspired platforms have emerged as a means of helping patients diagnosed with schizophrenia, such as Horyzons, MOMENTUM, EMBRACE, and PRIME. Horyzons is an application engineered to elongate and amplify the effects of early intervention on first-episode psychosis that works by combining features such as “peer-to-peer social networking; and live support from a clinician, an education and employment specialist, and a peer advocate” (Li et al., 2024; Alvarez-Jimenez et al., 2013). Over the course of an 18-month clinical trial in which 86 participants utilized Horyzons while undergoing treatment as usual and 84 individuals underwent treatment as usual, Horyzons was shown to increase the likelihood that users stay employed or in school and lessen the number of instances individuals utilized emergency services (Alvarez-Jimenez et al., 2021). Further, Horyzons reduced patients' costs and improved outcomes, with “significant improvements in social functioning, negative symptoms, and overall symptom severity compared to those with lower usage” (Li et al., 2024; Engel et al., 2023; O’Sullivan et al., 2021).

Similarly, another platform, MOMENTUM, worked to improve the condition of minors at clinical high risk for psychosis by combining “strengths and mindfulness-based intervention embedded within a social media environment, and application of the self-determination theory of motivation” (Alvarez-Jimenez et al., 2018). All 14 participants reported a general positive experience (Alvarez-Jimenez et al., 2018). These participants reported drastic advancement in social functioning in terms of the Global Functioning Social Scale and self-reported well-being (Alvarez-Jimenez et al., 2018).

Furthermore, EMBRACE, an online intervention app that incorporates regulation from both professionals and peers, therapy-related comics, and social networking elements, has been attempting to aid comorbid social anxiety in youth experiencing first-episode psychosis (McEnery et al., 2019). A 2019 pilot study of 10 individuals determined that the app resulted in significant improvement in social anxiety as defined by both the Social Interaction Anxiety Scale and the Liebowitz Social Anxiety Scale (McEnery et al., 2019).

Another application, called PRIME, utilizes a design based on social media to help first-episode psychosis youth by “incorporating text message-based coaching and social networking through peer-to-peer messaging and a community newsfeed” (Li et al., 2024; Schlosser et al., 2016). In a study where 22 participants received treatment through PRIME while 21 participants were on a “waitlist” as they received their usual treatments, PRIME users exhibited larger improvements in self-defined depression, defeatist beliefs, self-efficacy, and motivation than a control group (Li et al., 2024; Schlosser et al., 2018).

In sum, these studies indicate that these platforms provide viable treatment options for schizophrenia that harness social media’s design. Horyzons, however, shows the most promise because of the study’s large sample size, making the findings from the study more reliable and generalizable. The small sample sizes of the other studies could exaggerate findings, particularly because individuals who participate in studies are more likely to be receptive to treatment.

DISCUSSION

The findings presented here can be applied to both the identification and treatment of schizophrenia. Clinicians can utilize machine learning to identify individuals with schizophrenia and to recognize already identified patients who may be experiencing worsening symptoms. Identification can also be used to distinguish individuals who may be at risk of developing schizophrenia or experiencing their first episode of psychosis, so that treatment can be made available to them early on. While early identification and intervention are the best options, there are components of social media that also provide effective treatment for those already impacted by schizophrenia, as evidenced by Horyzons, MOMENTUM, EMBRACE, and PRIME.

Limitations and Future Directions

Because many of the included studies examining social media and schizophrenia used observational-based approaches rather than experimental designs, future research should focus on attempting to establish whether there is a causal relationship between increased social media usage and risk of developing schizophrenia. Of course, ethical concerns arise when determining the methods of such a study, and an experiment would likely not be feasible. Additionally, interviews involving individuals with schizophrenia discussing their experiences with social media can provide more context and allow for better understanding of the impact social media has on schizophrenia. Moreover, many of the pilot studies for the platforms aiming to mitigate schizophrenia, such as MOMENTUM, utilized very small sample sizes. Additional trials should be conducted using these platforms that reach a wider sample to reliably determine the effectiveness of these platforms as a means for aiding those struggling with the disorder. Admittedly, this would be difficult because the population of individuals with schizophrenia is small, and the population of those willing to do a study is likely much smaller, making implementation of the application as an avenue for treatment difficult. Besides, because this population is incredibly small, selection bias may arise and skew results. Applications such as Horyzons, MOMENTUM, EMBRACE, and PRIME must also ensure that users' information is protected to mitigate privacy concerns. Further, longitudinal studies should be conducted using these applications to see how they benefit patients over the course of their lives, rather than taking a sample of data from one time period. This could allow researchers to understand what drives consistent engagement with the platform and develop more options to aid these individuals and also determine long-term effectiveness. Another limitation that should be considered is the variability among current social media platforms and users. This makes observing behavior across platforms difficult and prevents conclusions drawn from one platform from being extended to other applications.

Conclusions

Just as social media has benefits and drawbacks as it stands alone, in the context of schizophrenia, this duality is also present. Social media can introduce individuals with schizophrenia to harmful stigmatized beliefs that could negatively impact their self-perception. Social media can also exacerbate already existing symptoms of the disorder. However, social media can also provide these individuals with communities where they feel safe, welcomed, and appreciated, as the apps can facilitate social interaction. Moreover, social media provides a promising avenue for the contactless identification of undiagnosed individuals and those who are already diagnosed with schizophrenia, whose symptoms may be worsening. Finally, social media has inspired platforms that can successfully improve the condition of individuals with schizophrenia. While promising, these findings must be examined carefully due to the studies' observational designs. In a field of study that is rapidly evolving, future studies can offer even more on the relationship between schizophrenia and social media.

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