



Research Paper

The Impact of Instagram Use on Users' Mental Health: A Comprehensive Review of Empirical Studies



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Abstract

In the era of modern communication technologies, the use of the internet and social media networks has become an integral part of individuals' daily lives. Instagram is a popular social network based on sharing images and videos, which has now transformed into a space for identity expression, marketing, and social connections. It significantly influences the behaviors, thoughts, and emotions of its users. With 2 billion active monthly users in 2024, Instagram ranks as the third most popular social network globally, following Facebook and YouTube. Among age groups, young people, particularly those between the ages of 18–24 and 25–34 years, with 31.7% and 30.6%, respectively (accounting for about 62% of total users), form the largest user demographics of this platform.

The primary aim of this study is to examine the effects of Instagram usage on mental health components. Recent research indicates that Instagram's impact on mental health is dual-faceted. Therefore, this paper explores both the positive and negative aspects of its influence. Negative impacts include social comparison, social media addiction, anxiety, and depression, while positive effects encompass feelings of belonging, emotional support, and the enhancement of social connections. This article, using a documentary study and literature review, presents findings from previous studies and provides recommendations for optimal use of Instagram and mitigating its negative effects.

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Introduction

One of the experiences individuals encounter in the era of modern communication technologies is spending part of their time on the internet and social media networks (Emami Roodsari, 2023). A detailed analysis by the Copyous team indicates that, by the beginning of January 2025, 5.24 billion people (approximately 63.9% of the global population) had social media accounts. Moreover, over the past 12 months, 206 million new users have joined social media, representing an annual growth rate of 4.1%, with an average of 6.5 new users per second. Meanwhile, data from GWI show that the average social media user spends about two and a half hours per day on social media platforms (datareportal, 2025).

Instagram is a social media platform that provides users with opportunities to connect and interact, discover, and share images and short videos, either in real-time or at a later time, according to their preferences. Users can select photography filters that alter the tone and color of the image (Adeyanju et al., 2021). Additionally, they can follow other users, or "followers," such as friends, celebrities, or websites that publish content aligned with the users' interests (e.g., cooking, fitness, comedy, latest news, etc.). By following others, users can view new posts or stories (images or videos) that have recently been shared, and they can also like or comment on content and share links with others (Reimann et al., 2023). With 2 billion active monthly users in 2024, Instagram ranks as the third most popular social network

globally, after Facebook and YouTube (Statista, 2024).

Researchers emphasize that social media can be viewed as a "double-edged sword" (Keles et al., 2020). Kralman et al. (2016) suggest that Instagram has the most significant impact on its users compared to other social networks (Reimann et al., 2023). Instagram helps its users enhance their self-acceptance and self-esteem by sharing images with others across the globe (Adeyanju et al., 2021), and by receiving positive feedback in the form of likes, comments, and direct messages, users experience a sense of social support. Additionally, the platform's features, such as tagging others in posts and commenting on photos, increase the motivation for social interaction and foster a sense of community (Mackson et al., 2019). However, while Instagram has become an essential part of daily life for young people and serves as a tool to facilitate easy communication with family members, old friends, and new acquaintances, there are also multiple risks associated with its use, particularly the negative effects on users' mental health (Adeyanju et al., 2021).

Statistics indicate that the prevalence of mental health disorders among undergraduate students has significantly increased over the past decade. While the exact cause of this rise remains unclear, there are speculations that the emergence of social media could be a contributing factor, with a particular emphasis on the impact of image-centric social media platforms such as Instagram. The visual

nature of image-based platforms provides more opportunities for upward social comparisons (comparing oneself to others perceived as superior), which may lead to body dissatisfaction and decreased self-confidence among users (Moreton & Greenfield, 2022). Moreover, Instagram exposes users to an increased risk of negative effects from social comparison, alongside depression (Adeyanju et al., 2021). Users are encouraged to engage in upward comparisons, which can result in feelings of frustration and jealousy. They may also grow weary of constantly being exposed to and following the idealized content and images of others. In general, it seems that Instagram, despite its claims, prioritizes self-presentation and social recognition over genuine social connection and interaction (Romero Saletti & Van den Broucke, 2024).

However, it is important to note that even two teenagers who use a platform in a similar manner (for example, posting a selfie on Instagram) may interpret their social media use in significantly different ways, which can impact their mental health. Research on individuals' subjective perceptions of their social media usage suggests that the beliefs or attitudes people have about their use of social media can influence their symptoms of depression (Lee & Hancock, 2024) as cited in (Schreurs et al., 2024).

Robert and David emphasize the need for further research to clarify whether users turn

to Instagram as an escape from their daily concerns or if using the platform contributes to feelings of anxiety and depression. This distinction is crucial for understanding the underlying motivations for social media use and its psychological impacts (Roberts & David, 2023).

According to the latest definition by the World Health Organization, mental health is a state of psychological well-being that enables individuals to cope with the stresses of life, recognize their abilities, learn effectively, work productively, and contribute to their communities. It has both intrinsic and instrumental value and is an integral part of individual well-being. At any given time, a diverse set of individual, familial, social, and structural factors may combine to either protect or undermine mental health (World Health Organization, 2025).

The General Health Questionnaire (GHQ), developed by Goldberg in the 1970s, is considered a reliable measure for assessing mental health. Among the various versions of the GHQ, the GHQ-12 has been widely used (Kang, 2022). Confirmatory factor analysis suggests that the best-fitting model for the GHQ is the three-dimensional model proposed by Graetz (Smith et al., 2010), which posits that the GHQ-12 measures three distinct constructs (*Figure 1*): "anxiety/depression," "social dysfunction," and "loss of self-confidence" (Kang, 2022; Hankins, 2008).

Components of Mental Health		
anxiety/depression	social dysfunction	loss of self-confidence

Figure 1: Components of Mental Health (Kang, 2022; Hankins, 2008)

It is noteworthy that while research confirms a strong association between Instagram use and mental health issues, it also highlights that the direct causality between them has not yet been fully explored. Further studies are needed to understand the underlying mechanisms of this relationship (Adeyanju et al., 2021). It is important to recognize that the observed relationship between depression and Instagram use is more complex than it can be simply discussed, and the impact of mediating and moderating factors must also be considered (Keles et al., 2020). In this regard, by focusing on the role of Instagram in mental health, particularly in the three dimensions of anxiety and depression, social dysfunction, and self-esteem reduction, we sought to gain a deeper understanding of the positive and negative consequences of this platform and to examine

Research methodology

This study adopts a descriptive-analytical approach and utilizes the method of documentary research. As a qualitative research method, documentary analysis involves the systematic and structured collection of data from existing documents and sources relevant to the subject of inquiry. In this approach, the researcher aims to discover, extract, categorize, and evaluate content related to the research topic through a methodical examination of existing literature

the moderating factors. Moderating factors can help explain why some individuals may experience varying levels of depression and anxiety, social impairment, or changes in self-confidence in relation to social media use.

Considering that some previous studies have focused solely on the negative consequences of Instagram, this study provides a more comprehensive picture of the phenomenon by examining both the positive and negative effects, as well as the role of moderating factors. The findings of this research can assist users in more conscious usage of Instagram, help mental health professionals in offering appropriate interventions, and aid developers of digital platforms in designing user-centered and health-oriented features.

and empirical findings (Sadeghi Fasayi, 2015). The primary objective of employing this method in the present study is to collect and analyze existing scholarly data regarding the psychological impacts of Instagram usage on users' mental health, with a particular focus on youth.

At the initial stage, a comprehensive literature search was conducted through both national and international academic

databases, including Google Scholar, Scopus, ScienceDirect, and SID, using a set of relevant keywords such as *Instagram*, *Mental Health*, *Anxiety*, *Depression*, *Social Media Use*, *Psychological Effects*, mental health, anxiety, depression. The search was limited to peer-reviewed articles published between 2015 and 2024, in order to ensure the inclusion of the most recent and relevant research findings.

Following the initial search and source extraction, a set of inclusion criteria was applied to determine the final selection of articles for analysis. These criteria included: a direct focus on the psychological effects of Instagram use, the presence of a clear and rigorous research methodology (including defined sample populations and analytical procedures), and publication in reputable academic journals. Studies that focused solely on other social media platforms or lacked sufficient analytical rigor were excluded from the final dataset.

Research Finding

Categorization of Instagram's Effects on the Three Components of Mental Health

Anxiety and Depression

Numerous studies have explored the complex relationship between Instagram usage and mental health, particularly with an emphasis on anxiety and depression (Aubry et al., 2024). Users who engage more frequently with Instagram tend to report higher levels of depressive symptoms compared to non-users and users of other social media platforms such as Facebook or Twitter (Adeyanju et al.,

2021). The increase in negative emotional experiences, decreased self-esteem, and heightened depressive moods among users underscores a clear association between Instagram use and mental health concerns such as anxiety and depression (Aubry et al., 2024). For instance, some studies suggest that Instagram may, under certain conditions, contribute to a reduction in anxiety and depression by enhancing self-esteem and alleviating loneliness. Furthermore, factors such as Instagram-related anxiety and social comparison may complicate this relationship. Understanding these dynamics is essential for addressing mental health issues within the context of social media use (Mackson et al., 2019).

Moderating Factors of Negative Effects on Anxiety and Depression

Upward Social Comparison

Research indicates that Instagram users frequently engage in upward social comparisons (Adeyanju et al., 2021). Individuals who participate in such comparisons may experience more negative self-perceptions (Mackson et al., 2019), which can lead to reduced self-esteem (Adeyanju et al., 2021), feelings of inadequacy, and increased loneliness (Mun & Kim, 2021). These emotional states are strongly associated with heightened levels of anxiety and depression. This phenomenon is particularly pronounced among younger users, who may be more inclined to seek social validation through the platform (Adeyanju et al., 2021).

Research supports the hypothesis of a vicious cycle in which depressive symptoms lead to increased engagement in social comparisons, which in turn exacerbate emotional states such as anxiety and depression. Specifically, individuals with higher levels of depressive symptoms are more likely to engage in upward social comparisons while using Instagram. They tend to compare themselves with others who appear to be in more favorable circumstances. The consequence of such comparisons is an intensified sense of inadequacy, resulting in heightened anxiety and depressive mood. This cycle may generate a negative feedback loop, making it increasingly difficult for individuals to escape the adverse psychological effects associated with social media use (Aubry et al., 2024).

User Behavior (Patterns of Instagram Use)

The way individuals use Instagram can significantly influence their mental health (Adeyanju et al., 2021). Passive use where users primarily browse content created by others without actively contributing their own may intensify the negative effects of social comparison on self-esteem and emotional well-being, potentially resulting in higher levels of anxiety and depression (Aubry et al., 2024).

The act of deleting behavior on Instagram may also reflect underlying mental health issues. Users might remove posts due to anxiety about how they will be perceived by others or as a reaction to negative emotions

associated with their online presence (Mun & Kim, 2021).

There is also a significant association between the act of sharing Instagram stories and the fear of missing out (FOMO) (Marengo et al., 2024). FOMO refers to the apprehension of missing out on rewarding or positive experiences that others appear to be having, often driving individuals to feel a strong need to stay connected with their social networks, such as family and friends. Individuals experiencing FOMO tend to pay heightened attention to social media notifications and often prioritize engagement with social media over other important tasks. The persistent need to remain connected and the fear of exclusion can generate a cycle of stress and dissatisfaction, ultimately exacerbating feelings of depression (Rozgonjuk et al., 2020).

Research indicates that lying self-presentation where users misrepresent themselves on Instagram is positively associated with increased levels of depression. Users with a strong need for social acceptance who engage in manipulative self-presentation may experience intense feelings of sadness and anxiety due to the psychological burden of maintaining a false online persona, particularly when there is a discrepancy between their real and virtual identities (Mun & Kim, 2021).

Robert and David suggest that users who experience high levels of flow states (a sense of deep immersion in social media use) and telepresence while using Instagram are more

likely to report elevated levels of anxiety and depression (Roberts & David, 2023).

Gender Differences Among Users

Although many studies have not explicitly emphasized gender differences, there is evidence suggesting that female users may be at a higher risk of elevated anxiety levels (Adeyanju et al., 2021).

Empirical research has shown that female users report higher levels of depression and greater difficulties in emotional regulation compared to their male counterparts (Marengo et al., 2024).

Usage Frequency

Negative psychological effects may occur even after brief exposure to Instagram content. The frequency of Instagram use has been found to be directly associated with depressive symptoms (Adeyanju et al., 2021). Studies have identified daily internet use as a significant predictor of Instagram addiction (Kircaburun & Griffiths, 2018). Moreover, effective time management regarding Instagram usage may help mitigate its adverse effects on psychological well-being (Roberts & David, 2023).

Self-Esteem and Loneliness

Research highlights that self-esteem and loneliness function as mediating variables in the relationship between Instagram use and mental health. While loneliness is associated with higher levels of psychological symptoms, higher self-esteem is linked to lower levels of depression and anxiety. This suggests that Instagram users who report

generally higher self-esteem and lower levels of loneliness tend to experience fewer symptoms of anxiety and depression (Mackson et al., 2019).

Moderating Factors of Positive Effects on Anxiety and Depression

Downward Social Comparison

Mackson and colleagues argue that the formation of social connections through Instagram may yield more benefits than drawbacks for users (Mackson et al., 2019). Some studies have demonstrated that downward social comparisons during Instagram use can elicit positive emotions in users. These findings underscore the complexity of social comparison processes on social media platforms and suggest that not all forms of social comparison are inherently harmful (Aubry et al., 2024).

Restoration of Interpersonal Relationships

In the study conducted by Mackson and colleagues, participants who had an active Instagram account reported lower levels of anxiety and depression compared to those without an account. This finding suggests that Instagram use may contribute to the reduction of depressive symptoms (Mackson et al., 2019). It can be argued that the pervasive nature of Instagram may help facilitate more meaningful interpersonal connections, which are essential for psychological well-being (Roberts & David, 2023).

Perceived Popularity

Interestingly, research findings suggest that perceived popularity may serve as a

psychological buffer against depression. While deceptive self-presentation may contribute to increased depressive symptoms, individuals who perceive themselves as popular on Instagram may experience reduced levels of depression. This indicates that the social validation derived from perceived popularity can mitigate some of the negative mental health outcomes associated with deceptive self-presentation (Mun & Kim, 2021).

Instagram Anxiety

Researchers have identified a distinct form of anxiety referred to as Instagram anxiety, which pertains to the stress users experience when posting photos or anticipating feedback. Interestingly, this type of anxiety has been found to have a negative association with depression, meaning that users who reported higher levels of Instagram anxiety also reported fewer depressive symptoms. This suggests a complex relationship in which Instagram use may elevate anxiety without necessarily contributing to increased depression. Mackson interprets this phenomenon by suggesting that users experiencing Instagram anxiety may channel it into efforts to construct a positive self-image, which elicits favorable responses and helps reduce depressive symptoms. However, the general anxiety persists due to the constant pressure to publish content and maintain one's curated image (Mackson et al., 2019).

Social Dysfunction

According to existing research, the effects of Instagram use are not limited to immediate

consequences but may also have long-term implications for social interactions and interpersonal relationships (Adeyanju et al., 2021). For instance, excessive use of the platform can disrupt individuals' social functioning by diverting their attention away from real-life interactions and responsibilities (Roberts & David, 2023). Furthermore, while Instagram may facilitate social connections through active engagement (Kircaburun & Griffiths, 2018), it has also been linked to emotional dysregulation (Marengo et al., 2024), the promotion of unhealthy social comparisons, and an increased focus on online activities factors that reduce face-to-face interactions and may consequently diminish social skills (Adeyanju et al., 2021). Further research is necessary to comprehensively understand these dynamics and their implications for adolescents' social functioning.

Moderating Factors of Negative Effects on Social Dysfunction

Academic Performance

Intensive use of Instagram can lead to time-consuming activities that reduce study time, ultimately impairing academic outcomes and negatively affecting academic performance (Foroughi et al., 2022). Poor academic achievement may isolate students from their peers, as they might experience feelings of embarrassment or anxiety about their academic status. This social withdrawal, in turn, can further exacerbate impairments in social functioning (Ponnusamy et al., 2020).

Social and Interpersonal Interactions

Instagram use may diminish the quality of users' social relationships through mechanisms such as reduced face-to-face interaction and increased shyness. These changes can lead to heightened feelings of loneliness (Rogowska & Libera, 2022), social anxiety, and social isolation, ultimately contributing to impairments in social functioning (Ponnusamy et al., 2020).

Moreover, research indicates that a significant proportion of Instagram users (58%) engage with strangers at a rate higher than that observed on other social networking platforms such as Facebook. This increased interaction with unfamiliar individuals may lead to the formation of superficial relationships, thereby hindering the development of deeper and more meaningful social connections among users (Mun & Kim, 2021).

Social media use is likely to reduce the amount of time spent on face-to-face and healthier forms of interaction. Existing research has shown that most social media platforms are primarily used to maintain a broader network of virtual social connections, which tend to be weaker than those developed and sustained through offline interactions. Intensive use of these platforms may displace more meaningful in-person communication, to the detriment of close relationships and individual well-being (Moreton & Greenfield, 2022).

Individual Identity

Research indicates that social comparison on Instagram may hinder identity development by reducing self-confidence and

increasing self-doubt. This can result in difficulties in forming a coherent sense of identity, which is crucial for healthy social interaction. Adolescents who struggle with their identity may find social engagement challenging and may avoid it altogether, potentially leading to a decline in the quality of their social functioning (Noon, 2020).

User Gender

Research suggests that excessive use of Instagram particularly among females can negatively affect users' social functioning by increasing feelings of loneliness and reducing life satisfaction (Rogowska & Libera, 2022). Some findings indicate that gender plays a role in how social comparisons impact identity and social functioning. Specifically, male adolescents may be less susceptible to the adverse effects of upward social comparison on Instagram (Noon, 2020). It may therefore be inferred that, compared to females, males potentially experience lower levels of social dysfunction as a result of Instagram use.

Moderating Factors of Positive Effects on Dysfunction

Sense of Belonging and Social Connectedness

Despite concerns regarding social dysfunction associated with Instagram use, some studies suggest that the platform also offers potential benefits that may enhance social interaction and reduce feelings of isolation. This indicates that, while risks related to Instagram use exist, the platform can strengthen users' sense of belonging and

social connectedness, thereby alleviating feelings of loneliness for many individuals (Mackson et al., 2019).

Social Capital

Research has also shown that when users actively engage with others on Instagram, they are more likely to receive social support. Social capital serves as an important mediating factor in the relationship between active Instagram use and life satisfaction. This suggests that Instagram functions not only as a platform that facilitates social interaction but also as a tool that fosters the development of social capital, which in turn can enhance users' social well-being (Reimann et al., 2023).

Loss of Confidence

The relationship between Instagram use and self-confidence is complex and influenced by various factors such as individual differences, personality traits, self-perception (Kircaburun & Griffiths, 2018), social comparison, validation-seeking behaviors, shyness, psychological well-being (Ponnusamy et al., 2020), and other related variables.

Moderating Factors of Negative Effects on Loss of Confidence

Social Comparison

Instagram often fosters an environment conducive to social comparison, where users compare their lives with the curated images of others. Users may experience feelings of inadequacy when they perceive others as more successful or attractive, which can lead

to a decrease in self-esteem (Mun & Kim, 2021). This is particularly prevalent among adolescents and young adults, who are more susceptible to such comparisons (Ponnusamy et al., 2020).

An important point to note is that empirical studies have shown that passive use (as compared to active use) does not lead to an increase in users' self-esteem. Specifically, individuals who engage with Instagram passively report lower levels of self-esteem compared to those who actively participate on the platform (Aubry et al., 2024).

In summary, social comparison can significantly influence users' self-esteem by reinforcing negative self-perceptions, increasing anxiety, and fostering a reliance on external validation (Ponnusamy et al., 2020). It is also noteworthy that Dickerson and Taylor (2000), as well as Kukulu et al. (2013), have emphasized that self-esteem serves as a strong predictor of self-confidence (Jaaffar et al., 2019).

Self-Evaluation

The motivation for self-evaluation, or the tendency to assess oneself in comparison to others, is another factor that can mediate the relationship between Instagram usage and self-confidence. Users may feel the urge to compare their lives to the seemingly better lives of others, and individuals with higher levels of depression may experience a stronger need for self-evaluation. This feeling can lead to more negative comparisons, triggering negative emotions in users. The outcome of this behavior is likely to be a

further decrease in users' self-confidence (Aubry et al., 2024).

Need for Admiration and Need for Approval

The need for admiration through likes and comments on posts can create a cycle in which users' self-confidence becomes dependent on their online interactions. Additionally, individuals with a strong need for approval tend to present an unrealistic version of themselves on Instagram. This behavior may stem from a desire to present a better image of oneself and gain credibility and approval from others. While this may temporarily boost users' self-confidence, such reliance on external validation, which depends on others' perceptions, can lead to a fragile sense of self-worth and self-confidence (Mun & Kim, 2021).

Self-Liking

Individuals with higher self-liking tend to have better self-esteem, which can lead to more positive experiences on social media platforms such as Instagram. In contrast, those with lower self-liking may spend a considerable amount of time on Instagram without actively engaging in social interactions. They may experience a decline in self-confidence as they engage more with the platform, making them more vulnerable to the negative effects of social media use (Kircaburun & Griffiths, 2018).

Personality Traits

Research indicates that specific personality traits, such as low agreeableness, are associated with problematic use of social

media (Marengo et al., 2024). In a study conducted by Kircaburun and Griffiths, they emphasize the differences in personality traits among users of various social media platforms. They state that individuals with higher levels of extraversion are generally more social, and if Instagram usage replaces face-to-face communication to enhance their social interactions and online engagement, it can lead to issues in their social functioning. This is because they may become overly reliant on virtual validation rather than engaging in real-life relationships. Individuals with lower agreeableness may have a greater tendency for excessive use of Instagram due to difficulties in social relationships. These individuals are potentially seeking validation through likes and comments from others to compensate for feelings of inadequacy. Those with high levels of neuroticism may use Instagram as a coping mechanism for emotional instability. Their tendency to experience anxiety and mood swings can negatively impact their interactions and make it challenging to establish stable social connections. Lower conscientiousness is associated with higher levels of Instagram addiction. Individuals who are less organized and structured may struggle with time management on the platform, leading to neglect of real-life relationships (Kircaburun & Griffiths, 2018).

Moderating Factors of Positive Effects on Loss of Confidence

Higher Self-Esteem in Users

Trifiro and Prena (2021) suggest that active and continuous engagement with

Instagram is associated with higher self-esteem in users, which is a vital component of self-confidence (Trifiro & Prena, 2021). Additionally, a study by Mackson et al. showed that participants with an Instagram account reported higher levels of self-esteem compared to those without one. This indicates that Instagram usage can enhance self-confidence by providing a platform for self-expression and receiving positive feedback from others (Mackson et al., 2019).

Identity Development

The study indicates that while social comparisons can have detrimental effects, social comparisons on Instagram are positively associated with commitment and deep identity exploration, and can also facilitate identity development. This means that engaging with diverse opinions and becoming familiar with varied abilities on Instagram may help adolescents develop a more nuanced understanding of themselves and engage in self-exploration, which directly impacts the enhancement of their self-confidence (Noon, 2020).

It is important to note, however, that research suggests the long-term effects of social comparisons on self-confidence remain unclear. While some adolescents may benefit from identity exploration through Instagram, others may suffer from decreased self-esteem and self-confidence due to negative comparisons (Noon, 2020).

self-confident self-presentation

Adolescents' self-presentation on Instagram is influenced by a complex

interplay of social and personal norms. Zillich and Riesmeyer introduce a form of self-presentation called "self-confident self-presentation," where adolescents focus on self-acceptance, embrace their flaws, and present themselves authentically on the platform. Adolescents who prioritize authenticity in their self-presentation tend to report higher levels of self-esteem. By being honest with themselves and accepting their imperfections, they foster a sense of self-worth that is not solely dependent on external validation. This authentic self-presentation allows them to feel more secure in their identity and positively impacts their self-esteem (Zillich & Riesmeyer, 2021).

Discussion & Conclusions

Instagram, as one of the most widely used social media platforms in the present era, plays a significant role in the daily lives of users. Given the widespread use of social media and Instagram's unique position as an image-sharing platform, various studies have shown that this space can have profound effects on users' mental health. These effects, which encompass a wide range of psychological outcomes, underscore the importance of a scientific and thorough investigation of this topic. The results from a review of the existing research indicate that Instagram use has diverse effects on users' mental health, and these effects are not linear or one-dimensional. Instead, they are influenced by moderating factors that can alter the intensity and direction of these effects. These factors, through their mediating role, may either strengthen or weaken the positive or negative outcomes of Instagram

use. Therefore, identifying and examining these moderating factors is of particular importance, as they can play a pivotal role in understanding the complexities of the relationship between Instagram use and users' mental health, as well as in developing effective intervention strategies. This paper

examined the effects of Instagram use on mental health and its moderating factors, focusing on three areas: depression and anxiety, social functioning, and self-confidence in users. A summary of these factors is presented in Table 1.

Table 1. Moderating factors of instagram’s effects on the three components of mental health

Mental health components Moderating Factors	Anxiety/Depression	Social dysfunction	Loss of Confidence
Negative Effects	Upward Social Comparison	Academic Performance	Social Comparison
	User Behavior	Social and Interpersonal Interactions	Self-Evaluation
	Gender Differences Among Users	Individual Identity	Need for Admiration and Need for Approval
	Usage Frequency	User Gender	Self-Liking
	Self-Esteem and Loneliness		Personality Traits
Positive Effects	Downward Social Comparison	Sense of Belonging and Social Connectedness	Higher Self-Esteem in Users

	Restoration of Interpersonal Relationships	Social Capital	Identity Development
	Perceived Popularity		self-confident self-presentation
	Instagram Anxiety		

Limitations

Like many review studies, the present research is subject to several limitations. First, most of the reviewed articles were cross-sectional, which restricts the ability to establish causal relationships between the extent and type of Instagram use and psychological outcomes. Moreover, the reliance of many studies on self-reported data increases the likelihood of response bias and reduces the accuracy of findings. Another limitation lies in the predominant focus on young age groups and the lack of cultural diversity in the samples, which restricts the generalizability of the results to other age groups and socio-cultural contexts. In addition, variations in the instruments used to measure mental health and social media usage make it difficult to directly compare the results of different studies. Finally, the scarcity of longitudinal and experimental research prevents the examination of long-term effects and complex interactions among variables.

Research proposals

Given these limitations, future studies should employ longitudinal and experimental designs to better explore causal links between Instagram use and mental health. The integration of objective data such as actual usage logs, alongside self-reported measures, can enhance the accuracy of findings. Moreover, conducting research among more diverse age groups and cultural contexts particularly in non-Western societies would improve the generalizability of results. Exploring mediating and moderating variables such as personality traits, self-esteem, gender, and socio-economic status, as highlighted in the findings of the present review, can provide a more comprehensive understanding of Instagram’s psychological impacts. Furthermore, comparative studies across different social media platforms, such as Instagram, TikTok, and YouTube, can help identify the unique features and influences of each platform.

Practical suggestions

From a practical perspective, the findings of this study can inform strategies for optimizing the use of Instagram. Promoting media literacy among users through education and awareness-raising about both positive and negative consequences is of crucial importance. In addition, encouraging time management strategies and practices such as “digital detox” may help reduce the negative impacts of excessive use. Training users especially young people in emotional self-regulation skills can play a key role in mitigating the harmful effects of social

comparison. On the other hand, leveraging Instagram's positive capacities to foster supportive communities, strengthen a sense of belonging, and promote healthy social connections is highly recommended. Finally, collaboration among policymakers, educational institutions, and mental health professionals to develop clear guidelines and policies for the optimal use of social media can contribute to reducing negative consequences and enhancing its potential benefits.

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