

ANALYZING THE EFFECT OF SOCIAL MEDIA ON MENTAL HEALTH

SAIMA AFZAL¹, MAIZA AFZAL,² MUHAMMAD UMAR ABBAS³, AIMEN ABBAS⁴, HUMAIRA ILYAS⁵, GHULAM FARID⁶, AASIYA KATTIMANI⁷, ISRA KHAN⁸, AAYESHA FAZILAT⁹, DR. MADIHA HAROON¹⁰, SOPHIA SHAHID¹¹, MISHA MANZOOR¹², KANWAL NADEEM¹³

- AMITY UNIVERSITY, INDIA, EMAIL: saimasplanet@gmail.com, ORCID:0009-0001-0072-8910
 BS IN PUBLIC HEALTH, UNIVERSITY OF LAHORE, PAKISTAN, EMAIL: myzahafzal@gmail.com, ORCID:0009-0001-6717-1766
 - ^{3.} HOUSE OFFICER, SHALAMAR HOSPITAL PAKISTAN, EMAIL: drumar70@icloud.com, ORCID:0009-0003-9279-9824
 - 4. MBBS STUDENT, AKHTAR SAEED MEDICAL & DENTAL COLLEGE, LAHORE PAKISTAN, EMAIL: aimenabas123@gmail.com, ORCID:0009-0001-2460-5472
 - 5. MBBS, SERVICES INSTITUTE OF MEDICAL SCIENCES, LAHORE PAKISTAN, EMAIL: dr.humairailyas@gmail.com, ORCID:0009-0001-9001-5032
- 6. SENIOR LIBRARIAN, SHALAMAR MEDICAL AND DENTAL COLLEGE, LAHORE PAKISTAN, EMAIL: css_bcs@yahoo.com, ORCID:0000-0002-3299-5220
- 7. BACHELORS OF PHARMACY, SAVITRIBAI PHULE UNIVERSITY, INDIA & POST GRADUATE CLINICAL RESEARCH, SHERIDAN COLLEGE, MISSISSAUGA, CANADA, EMAIL: aasiyariz@gmail.com, ORCID:0009-0003-4838-7902
- 8. BA PSYCHOLOGY WILFRID LAURIER UNIVERSITY, MILTON, CANADA, EMAIL: kisra2007@gmail.com ORCID:0009-0001-8071-311X
 - 9. BA PSYCHOLOGY, SAM GLOBAL UNIVERSITY, INDIA, EMAIL: aayeshafazilat@gmail.com, ORCID:0009-0008-5268-0112
 - 10. SENIOR REGISTRAR. SURGERY, LIAQUAT NATIONAL HOSPITAL, PAKISTAN, EMAIL: madihaharoon31@gmail.com, ORCID:0009-0000-8886-6076
 - MBBS STUDENT, FATIMA JINNAH MEDICAL UNIVERSITY, LAHORE, PAKISTAN, EMAIL: sophiashahid1999@gmail.com, ORCID:0009-0005-7039-5073
- BACHELORS' IN JOURNALISM, UNIVERSITY OF ARTS LONDON, EMAIL: mishamanzoor1@gmail.com ORCID:0009-0009-9262-2424
 - 13. SENIOR MANAGER, OSA, SHALAMAR MEDICAL & DENTAL COLLEGE LAHORE PAKISTAN, EMAIL: kanwal.nadeem@sihs.org.pK, ORCID:0009-0009-9400-8583

ABSTRACT

This research study aims to investigate the effects of social media addiction on mental health with an emphasis on psychological consequences such as anxiety, depression, lower self-esteem and validation or recognition by others. As social media platforms become increasingly integrated into daily life, concerns have emerged about their potential to contribute to compulsive usage patterns and associated mental health challenges.

Drawing on quantitative data, this research analyzes the correlation ship between excessive social media usage and indicators of psychological well-being among diverse demographic groups and individuals. The outcomes highlight a noteworthy correlation between social media addiction and adverse mental health and psychological outcomes, suggesting a need for public awareness, digital literacy and intervention strategies such as counselling and advocacy. According to recent research people spend 141 minutes that makes to 2.3 hours per day on social media.

The study findings reveal a significant positive correlation between the extent of social media addiction and elevated levels of anxiety and depression. Participants who reported frequent use particularly late at night also exhibited disrupted sleep cycles and increased feelings of loneliness and isolation. Many reported a compulsive need to check notifications, compare their lives to others, and gain online validation through likes, comments, and shares, which further exacerbated feelings of inadequacy and reduced self-worth. In qualitative interviews, themes of fear of missing out (FOMO) and unrealistic social comparisons emerged as recurring contributors to psychological distress.

This research highlights the intense impact that social media addiction can have on intellectual and psychological health and also emphasizes the urgent need for wide-ranging strategies to mitigate these effects. As digital technologies continue to advance, addressing their such psychological



consequences will be critical to fostering healthier online behaviors in the digital age. However, by training people social media literacy, we can maximize their probabilities of having secure, safe, and meaningful experiences on these platforms which original is the purpose of social media. **Keywords:** Anxiety, depression, mental health, social media addiction, social media network,

adults, adolescent, India, Asia, Canada, Germany, Middle East, UK

INTRODUCTION

The social media has fast grown into one of the most pervasive Internet platforms that is shaping social systems across the world in the last decade (Chayko, 2020). The prevalence of using the Internet has increased to a level such that Internet use is considered as a part of a daily routine that leads user to have problems in use (Yilmaz & Karaoglan Yilmaz, 2023). The universal relevance of social media emanates from the potential to be used as to medium for real-time communication, access to large pools of data and fast sharing of information (Tyagi et al., 2024; Purohit et al., 2025). Platforms such as Facebook, WhatsApp, Instagram, and X formerly X formerly Twitter have in particular gained widespread popularity and have developed rich and interactive online spaces for social interaction, and with younger target groups in particular for online interaction (Oyighan & Okwu, 2024; Purohit et al., 2025).

Spending too much time on social media has been recognized as a major issue with multiple studies suggesting that it is a problem (Qin et al., 2023). Problematic social media (PSMU) use is defined as patterns of compulsive or excessive use of social media and have similar characteristics to that of behavioral addictions (Chemnad et al., 2023; Li et al., 2024). This general and non-substance-related disorder is characterized by an obsessive preoccupation, lack of control and continued use despite adverse consequences (Strahler et al., 2023). This problematic use has been linked to negative impact on mental health: higher levels of anxiety and depression, decreased psychological well-being and lower self-esteem (Idrees et al., 2024; Merino et al., 2024).

Mental health is an essential ingredient of health and a critical social and economic factor in our society. It is often referred to as the base on which the superstructure of health stands, thus being vital for the efficient performance of individuals and communities (Shi & Huang, 2025). Mental health is defined by the World Health Organization (WHO) as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (WHO, 2024). It is well known from research that social relationships strongly impact mental health. They have positive implications for feelings of belonging, self-esteem and social identity which might promote life satisfaction and emotional resilience. Persons who are socially connected tend to have better mental and physical health (Altinay et al., 2023; Dulai & Jaspal, 2024).

There is an expanding evidence base for associations between social media use and Mental Health Risk and Resilience (MHRR) (Uddin & Hasan, 2023) and one area that research has focused on is the interplay between social media use and MHRR. Although social platforms are seen as a social outlet and a form of expression, their potential psychological risks have been documented in the literature, especially when the use is excessive or compulsive (Uddin & Hasan, 2023).

The detrimental consequences of excessive use of the internet and social media have been studied sociologically and psychologically. They have been studied little, for example (Choi & Noh, 2020) reported that increased social media use was related to high levels of depression and suicidal ideation. Likewise, (Marttila et al., 2021) found in their study on adults positive relations between excessive internet and social media use, on the one hand, and stress, sleep disturbances and symptoms of personality disorder, on the other. (Jenkins et al., 2020) found that excessive used of digital media in adolescents was associated with a decrease in the overall health and quality of life.

A number of studies have investigated the prevalence of Internet addiction and the associated mental health outcomes in young people; an emerging body of research suggests that excessive social media use plays a role in the erosion of psychological health in this group (Lebni et al., 2020; Mishra et al., 2024). A study among university students in Iran indicated that high use of social media is associated with symptoms of depression and anxiety, signifying an increased prevalence of mental ill health (Nazari et al., 2025).

High levels of social media usage and indulge have been linked to greater loneliness, lower life satisfaction and stress of fear of missing out (FOMO). People who are inclined to social media addiction often tend to experience depressive symptoms, anxiety and to feel low-value or need constant validation from others. In this rapidly changing digital age, the severe psychological effects of the use of social media still present a fundamental area of investigation for the needs of research and public health intervention (West et al., 2024; Enginkaya & Sağlam, 2025).

The unfiltered content uploading and the easy availability of such content to the viewers of social media has increased loneliness, fear of missing out (FOMO) and decreased individual well-being and life satisfaction. As most of the viewers at risk of social media addiction often report depressive symptoms and lower self-esteem due to constant comparison of their lives to the untruthful life portrayed on social media.



Statement of Problem

In this digital era, social media has evolved into one of the most influential innovations of the 21st century, reshaping how individuals communicate, form relationships be it to promote their profession/ business or personal advancements to engage with the world around them. This phenomenon, commonly referred to as Social Networking Site (SNS) addiction, has emerged as a behavioral health issue with considerable implications for not only adolescents but everyone who is a user and is addicted to its social media addiction tampers its mental health. Although not yet formally recognized in major diagnostic systems such as the DSM-5 or ICD-11, SNS addiction implicates numerous parallels to other behavioral addictions such as online gaming and internet addiction. Teenagers and youngsters, due to their emotional sensitivity, inexperience to handle stress and increased need to impress people around them and validation by their peers, appear particularly exposed to these addictive behaviors.

Numerous studies conducted across diverse populations have demonstrated significant links between problematic social media use and various mental health issues, including heightened anxiety, depression, loneliness, low self-esteem, and sleep disturbances. Psychological factors such as Fear of Missing Out (FOMO), social comparison, and the craving for online validation have been identified as key drivers that not only perpetuate compulsive usage but also worsen emotional distress (Kumar & Kumar, 2024; Duradoni et al., 2024; Tandon et al., 2025;). This creates a paradox where social media simultaneously provides connection and community while fostering feelings of isolation, inadequacy, and emotional strain for many users.

However, current educational and clinical practices in the region may not yet be adequately equipped to recognize or address SNS addiction as a legitimate mental health issue. The ambiguity surrounding diagnostic criteria and the blurred lines between normative and pathological use contribute to this gap. By investigating this issue, the study seeks to provide evidence-based insights that can assist mental health professionals, educators, parents, and policymakers in fostering healthier digital habits and enhancing the well-being of adolescents in today's digital era.

Rationale of Study

The motivation for this study arises from the pressing need to better understand the shifting psychological landscape of adolescents in today's digital age. Social media has fundamentally reshaped the developmental context for modern youth. Whereas past generations experienced adolescence primarily through face-to-face interactions and offline social networks, today's young people increasingly navigate identity formation, peer relationships, and emotional expression via online platforms. This blending of online and offline worlds presents new and complex challenges for mental health.

It addresses a critical gap in the literature, responds to an emerging public health concern, and aims to provide actionable insights for a wide range of stakeholders. By exploring the relationship between SNS addiction and adolescent mental health within the context of various age group of developed and developing countries like Canada, Germany, United Kingdom, India, Kingdom of Saudia Arabia, UAE the study seeks to contribute both to scientific knowledge and to the practical efforts needed to safeguard the psychological well-being of the next generation.

RESEARCH OBJECTIVES

The following aims of the study were pursued:

- The aim of this study is to assess the prevalence and severity of addiction to social media and its relationship with mental health disorders such as anxiety, depression, panic and eating disorder and social anxiety disorders.
- The perceived effects of social media use on a user's personal, social and psychological lives were evaluated.
- To determine the effect of excessive usage resulting in addictiveness to social media with an adverse effect on behavior, productivity and mental well-being of the users.

LITERATURE REVIEW

A comprehensive study examining the prevalence of social media addiction and its psychological predictors (Hammad & Awed 2024). The results revealed that 60.30% of participants were classified as addicted to social media, indicating a significant public health concern. Furthermore, statistically significant differences were observed between individuals identified as social media addicts and those who were not. Through linear regression analysis, the researchers demonstrated that depression, anxiety, loneliness and lower self-esteem were significant predictors of internet addiction. These findings suggest that emotional and psychological vulnerabilities may heighten the risk of problematic social media use, emphasizing the need for targeted mental health interventions aimed at high-risk groups. Using path analysis, (Woodward et al. 2025) found that across the overall sample, increased use of TikTok and YouTube was consistently linked to greater mental health challenges. Conversely, higher usage of Snapchat was associated with fewer mental health issues. When analyzed by gender, TikTok usage appeared to be more significantly related to mental health concerns among women, while Reddit use showed a stronger correlation with mental health issues among men.

The rapid expansion of social media has led to a surge in research examining its effects on mental health. A growing body of evidence has identified a strong connection between excessive use of social media platforms and various



psychological difficulties. This section reviews recent empirical studies that document the prevalence of social media addiction and its associations with conditions such as depression, anxiety, and loneliness.

In today's digital era, social media plays a central role in everyday life, especially among young people. Although these platforms provide numerous advantages such as instant communication, access to information, and entertainment excessive use has sparked increasing concern about their negative impact on mental health. This study investigates the effects of social media addiction on the mental health of emerging adults, focusing specifically on a sample from the Dharwad district in Karnataka, India, during the 2020 - 2021 academic year (Kumar, 2021; Shetty et al., 2023).

The term social media addiction (SMA) describes a pattern of excessive, compulsive use of social media platforms that disrupts daily functioning and overall well-being. Although SMA is not yet formally recognized as a clinical disorder in diagnostic frameworks such as the DSM-5, it exhibits core behavioral characteristics common to other established addictions including salience, mood modification, tolerance, withdrawal, conflict, and relapse (Sassover & Weinstein, 2022). Studies have linked SMA to various negative outcomes, such as psychological distress, disrupted sleep patterns, diminished academic performance, and strained interpersonal relationships (Derevensky et al., 2022). The study identified social anxiety as a prominent antecedent of SMA profiles, particularly in the high-risk group. Social anxiety, defined as the fear of social situations and negative evaluation by others, can hinder face-to-face interactions and lead individuals to seek safer environments for social engagement, such as social media. Online interactions provide a sense of control and anonymity, reducing perceived social risks.

However, the digital environment may reinforce avoidant behavior, resulting in a feedback loop where individuals increasingly rely on social media to fulfill social needs while avoiding in-person contact. This cycle can exacerbate feelings of loneliness and dependence on online validation, contributing to addictive behaviors.

Another critical antecedent is anxious attachment style, a form of insecure attachment characterized by a heightened need for closeness and fear of abandonment. People with anxious attachment are more likely to seek constant reassurance and approval, which social media readily offers through likes, comments, and follower counts. For such individuals, social media becomes a tool to manage relational insecurities, but it may also intensify emotional instability when expectations are unmet or interactions are ambiguous.

RESEARCH METHODLOGY

This was analytic cross-sectional research with the objective to explore the association of social media addiction with mental health among users in social media users from the South Asia and Middle East region. Since the present study design was cross-sectional, it could use only one moment for the measurement of the variables and for prevalence and relationship of the observed phenomena to be tested (social media addiction, anxiety and depression).

Research Design

This study utilizes an analytical cross-sectional research design to examine the negative impact of social media addiction on the mental health of emerging adults. This design is well-suited to the study's objectives, as it enables the assessment of both the prevalence and the associations between social media usage patterns and mental health indicators within a defined population at a single point in time. Unlike longitudinal or experimental designs, a cross-sectional approach provides a snapshot of the phenomenon, allowing researchers to identify correlations and emerging trends without manipulating variables.

Sampling and Sample Size

Participants were randomly selected from the target population of emerging adults, defined as individuals aged 18 to 29 years a group known for high social media activity and psychological vulnerability to its effects. The final sample included 371 participants, balanced in terms of gender and academic streams to represent the population accurately. Inclusion criteria required active daily use of at least one social media platform, while individuals with pre-existing psychological disorders or limited digital access were excluded.

Type of Data Used

The research collected the analytical data (including survey data) in writing. This information was used to examine the correlations of addiction to social networking and psychiatric co-morbidity by means of validated psychiatric scales. In this study, quantitative data was utilized to examine and analyze the effects of social media addiction on the mental health of emerging adults. Quantitative data refers to information that can be measured and expressed numerically. It allows researchers to perform statistical analysis to detect patterns, relationships, and trends among variables. The choice of quantitative data was intentional and appropriate, given the research objective to identify and evaluate the association between measurable aspects of social media use and mental health outcomes in a defined population.

To evaluate social media addiction, the survey included standardized instruments such as the Bergen Social Media Addiction Scale (BSMAS), the Generalized Anxiety Disorder-7 (GAD-7) and the Centre for Epidemiological Studies Depression Scale (CES-D-10). The addiction scale featured items assessing behaviors like compulsive use, tolerance, withdrawal symptoms, neglect of personal life, and disruption of academic or social responsibilities due to excessive



social media engagement. Participants rated each statement on a Likert scale (for example, from "strongly disagree" to "strongly agree"), allowing for numerical scoring that reflected the severity of addiction for each individual.

Data Collection Method

The survey was administered online, deemed the most efficient and practical method for reaching participants across nationwide or multi-regional areas at the time of data collection. The survey was distributed using Google Forms, with the data collection period spanning from April 14 to May 25, 2025. To maximize reach, the survey link was shared through social media platforms, emails, messaging apps, and professional networks.

The study's purpose was clearly explained to all respondents, and verbal consent was obtained at the beginning of the survey. Participants were assured that their anonymity and confidentiality would be strictly maintained, with no personal identifying information collected.

Data Collection Instrument

A questionnaire was designed to gather survey data utilizing the following standardized scales:

- 1. The Bergen Social Media Addiction Scale (BSMAS): This is a six-item self-report measure rated on a 5-point Likert scale, ranging from "very rarely" (1) to "very often" (5). The total BSMAS score ranges from 6 to 30, with higher scores indicating a greater likelihood of problematic social media use (PSMU). According to research based on Item Response Theory (IRT), scores above 26 out of 30 suggest a higher risk of PSMU.
- 2. Generalized Anxiety Disorder-7 (GAD-7): Based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria, the GAD-7 assesses the frequency of anxiety symptoms. Respondents report how often they have experienced each of the seven key symptoms of generalized anxiety disorder during the past two weeks. Responses range from "not at all" (0) to "nearly every day" (4). The total score categorizes anxiety severity as follows: 0–4 minimal anxiety, 5–9 mild anxiety, 10–14 moderate anxiety, and 15–21 severe anxiety.
- 3. Centre for Epidemiological Studies Depression Scale (CES-D-10): The CES-D-10 scale contains ten elements to assess depression which are distributed as follows: three elements on the depressive effect, five elements on physical symptoms and two elements on the positive effect. Responses ranging from "rarely or never" to "always," Therefore, the scale scores range from 0 to 30. It is scored by summing the responses to each of the 10 items, with a score of 10 or higher generally indicating potential depressive symptoms. A score higher than 10, particularly 16 or higher, may suggest more severe symptoms.

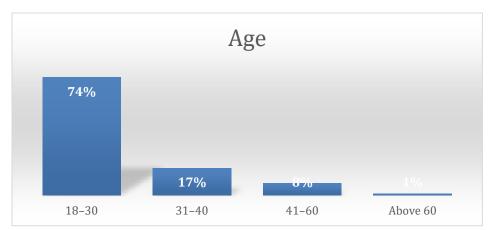
Data Analysis Tool

CSV files of the data collected on Google Forms were downloaded and the entries were analyzed with IBM SPSS software version 27.

RESULTS

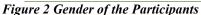
The findings of this study are explored that a bar graph (Figure 1) indicates the age distribution of respondents. We can see that the respondents are mostly aged between 18-30, which makes up to 74%. This suggests that the sample is generally more representative of the opinions and actions of younger adults. 17% of the respondents are between 31 and 40 whereas there are only 8% between 41 and 60. Only 1% are older than 60.

Figure 1 Age group of the participants



On the whole, the numbers indicate active uptake by the young, with older age groups being far less involved. This balance may influence the support for the study results for generalizability, suggesting that inclusive sampling into advanced ages may be more appropriate in future studies to represent views across the age span (Figure 2).





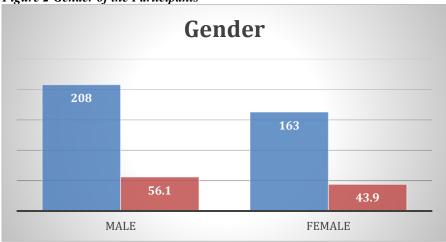
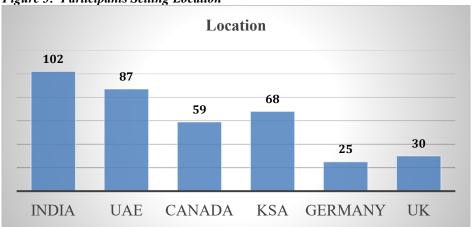


Figure 3: Participants Setting Location



The bar chart entitled "Location" (Figure 3) shows respondents continent-wise from 6 countries. The majority of the participants are from India with 102 which means the participation is high in this region. Then comes UAE with 87 participants and KSA (Kingdom of Saudi Arabia) with 68, indicating a wide participation from the Middle East. Canada comes next with 59 contributors, indicating an average level of involvement. Germany and the UK had the least response being 30 and 25 respectively suggesting low participation from these countries.

Table 1 Centre for Epidemiological Studies Depression Scale (CESD) Score Sheet

Questionnaire	N		Mean
	Valid	Missing	
Bothered Things don't bother me	371	0	0.91
Don't feel like eating	371	0	0.60
Could not shake off	371	0	0.59
Just as good as others	371	0	1.81
Trouble keeping mind	371	0	1.25
Felt depressed	371	0	0.82
Did everything with effort	371	0	1.18



Hopeful of future	371	0	2.02
My life had been failure	371	0	0.67
Felt fearful	371	0	1.07
Sleep was restless	371	0	0.95
I was happy	371	0	1.99
Talked less	371	0	1.13
Felt lonely	371	0	0.97
People are unfriendly	371	0	0.82
Enjoyed life	371	0	1.98
Felt sad	371	0	0.95
Crying spells	371	0	1.88
People dislike me	371	0	0.74
Could not get going	371	0	0.97

The Center for Epidemiologic Studies Depression Scale (CES-D) was administered to a total of 371 participants, all of whom completed the questionnaire without missing responses. The analysis offers meaningful insights into the emotional well-being of the sample, shedding light on patterns of depressive symptoms many of which appear to be linked to self-esteem issues and their potential connection to excessive social media use (Table 1)...

Supporting this, the items "My life had been a failure" (Mean = 0.67), "People dislike me" (Mean = 0.74), and "Felt lonely" (Mean = 0.97) reflect inner emotional struggles commonly found in individuals with low self-esteem. These perceptions can drive young users to seek affirmation and connection through social media platforms, often leading to excessive and emotionally dependent behaviors online (Table 1).

Interestingly, despite these concerns, participants also reported positive emotional indicators:

- "Hopeful about the future" (Mean = 2.02)
- "I was happy" (Mean = 1.99)
- "Enjoyed life" (Mean = 1.98)

These responses suggest that while depressive symptoms are present, many individuals maintain a hopeful and resilient outlook. However, the presence of both positive and negative feelings could reflect internal emotional conflict, which often manifests in increased digital engagement as a coping mechanism (Table 1).

Additional symptoms reported include "Trouble keeping mind on tasks" (Mean = 1.25), "Did everything with effort" (Mean = 1.18), and "Felt fearful" (Mean = 1.07), all of which indicate cognitive strain and emotional fatigue factors that may drive youth to escape into digital environments.

Table 2 Correlation between variables

Variable Pair	Correlation (r)	95% Credible Interval
BSMAS – GAD	0.13	[0.03, 0.23]
BSMAS – CES-D	0.22	[0.13, 0.32]
GAD – CES-D	0.73	[0.68, 0.78]



In the Tabe 2 the bayesian correlation analysis revealed a small positive association between social media addiction (BSMAS) and anxiety (GAD) (r = .13, 95% CI [.03, .23]), and a severe positive association with depression (CES-D) (r = .22, 95% CI [.13, .32]). As expected, a strong correlation was also observed between anxiety and depression (r = .73, 95% CI [.68, .78]).

Table 3 Multivariate Analysis

Dependent Variable	Predictor	F	p-value
GAD (Anxiety)	Full Model	2.666	0
	BSMAS (SM Addiction)	1.667	0.029
	Gender	21.333	0
	Age	1.046	0.307
	Occupational Status	0.58	0.447
CES-D (Depression)	Full Model	2.103	0.002
	BSMAS (SM Addiction)	2.041	0.004
	Gender	4.768	0.03
	Age	1.862	0.173
	Occupational Status	0.82	0.366

In the table 3 a multivariate analysis of covariance was conducted to examine the effect of social media addiction on anxiety and depression while controlling for age, gender, and occupational status. The full model predicted both anxiety (F(26, 344) = 2.666, p < .001) and depression (F(26, 344) = 2.103, p = .002). Social media addiction (BSMAS) was a predictor of both anxiety (F(23, 344) = 1.667, p = .029) and depression (F(23, 344) = 2.041, p = .004). Gender was also a significant covariate for both outcomes (p = .000) for anxiety; p = .003 for depression). However, age and occupational status were not significant predictors for either anxiety or depression.

DISCUSSION

The results of the study indicate a nuanced but significant relationship between social media addiction and mental health outcomes, particularly concerning symptoms of anxiety, depression, and loneliness. Correlational analysis revealed a small positive association between overall levels of social media addiction and general mental health concerns. While the association with anxiety was minor, a stronger and more concerning correlation emerged with depression, suggesting that individuals who use social media excessively are more likely to experience depressive symptoms.

In contrast to other behavioral addictions, SNS addiction focuses on social and interpersonal interaction in online settings. Based on the gratification-based perspective, individuals are motivated to use SNSs due to enjoyment, affective fulfillment, or social support received. It is this positive feedback loop that cause users to increase time on screen seeking for additional reward (Mittal & Rani, 2024; Chatterjee & Rai, 2023). Here, addiction doesn't just result from the type of content that users are consuming but is also built from perceived and real relationships formed and sustained online both virtually and in relation to real-world social networks.

Recent studies have suggested that nearly one third of college students show the criteria for SNS addiction and this disorder is linked with various mental problems such as anxiety, depression, and manic symptoms (Mittal & Rani, 2024; Nascimento et al., 2025). While these results highlight strong associations between excessive SNS use and poor psychological wellbeing, the sequence from frequent SNS use to addiction to mental health ramifications is still not well clarified.



The relationship is also even more complex due to cultural and social contexts. For instance, addictive tendencies and behaviors to use SNS may vary across social values and norms, specifically for interpersonal relationships across different cultural contexts. A user's psychosocial background, including such factors as social isolation, loneliness, and belongingness, can relate to the initiation of pathological SNS use and the formation of addiction (Yang et al., 2024; Vaghefi et al., 2023). On the other hand, these psychosocial components could act as mediators and/or moderators in the relationship between SNS addiction and mental health consequences. The preliminary studies indicate that SNS addiction may potentially mediate the connotation between SNS usage patterns and the psychological and mental health status (Kurşuncu et al., 2023; Jones, 2024). This indicates that interventions aimed at not just SNS use but also the associated psychosocial factors.

A significant portion of respondents reported feeling a compulsive need to check notifications, even in situations where it was inappropriate such as during classes, meals, or late at night. This compulsive checking often reflected an emotional reliance on social media for validation. Many participants acknowledged that the pursuit of approval through likes, comments, shares, or follower counts was a primary motivator behind their repeated engagement. Over time, this dependence on digital affirmation was linked to lower self-esteem, particularly when individuals compared their everyday lives to the often idealized and filtered portrayals of others online.

Despite increasing scholarly attention, there is currently no universally accepted diagnostic approach of social media addiction. This is in contrast with conditions like Internet Gaming Disorder that already received formal recognition in the ICD-11 (Saunders et al., 2025). Researchers have suggested that addiction to social media should be treated as a behavioral addiction, which involves uncontrollable patterns of use that impair psychosocial functioning. Frequently cited diagnostic signs include (a) salience of the behavior, (b) enhanced tolerance, (c) use of the social media for mood regulation, (d) relapse, (e) withdrawal symptoms, and (f) functional impairment. Advocates of this theory propose that social media addiction is analogous to other behavioral and substance related addictions with similar symptom breadths and risk factors, like early onset and impulsive behaviors (Saunders et al., 2025; Peng et al., 2025). However, the concept of addiction to social media is contentious. Detractors caution against over-pathologizing of normative behaviors, arguing that the label of "addiction" might be prematurely applied to what would otherwise be baseline digital engagement (Drozda & Delmonico, 2024).

The side effects of spending too much time online go beyond addiction. Studies show negative effects towards physical activity, sleep quality, and academic performance among university students. A study by Prasad (2023) found a relationship between social media use and more pronounced symptoms of depression and anxiety, and factors such as time spent on the Internet, type of social media activities (Prasad et al., 2023).

A fear of missing out (FOMO) is one of the psychological factors that increases social media addiction which is a constant concern of not being involved in or with social opportunities online. FOMO is based on self-determination theory, which suggests that people have inherent psychological needs for relatedness and social interaction. Addressing these needs via social media may provide a method to cope with feelings and improve well-being (Zhang, 2023). Yet an extreme FOMO may drive users to excessive interaction with social media platforms to fulfill these emotional needs. Bloemen et al. found evidence of a bidirectional link between FOMO and internet addiction, and demonstrated the predictive effect of FOMO in compulsive use of social media (West et al., 2024; Enginkaya & Sağlam, 2025).

Social comparison played a central role in this dynamic. Numerous participants admitted to comparing their looks, accomplishments, lifestyles, and relationships with those they encountered on platforms like Instagram, Facebook and TikTok. These comparisons frequently resulted in feelings of inadequacy, disappointment, and diminished self-worth. When individuals felt they were falling short of the standards portrayed by peers online, it led to emotional distress, further fueling a cycle of negative self-image and increased social media use in search of reassurance.

The findings suggest that while moderate social media use can be harmless or even beneficial for staying connected and informed excessive or compulsive usage is linked to notable declines in mental well-being. Behavioral patterns among certain participants resembled those seen in addictive disorders, including obsessive thoughts, withdrawal-like symptoms, and difficulty reducing use despite awareness of its harmful impact.

CONCLUSION

The study highlights an increasing mental health challenge in today's digital era: the harmful psychological impact of social media addiction, especially among youth. While not all social media usage is harmful, problematic usage is clearly associated with increased risks of depression, mild anxiety, low self-esteem, and emotional isolation. These findings highlight the urgent need for awareness campaigns, digital literacy education, and mental health support systems aimed at helping individuals especially adolescents and young adults develop healthier, more balanced relationships with social media.

Recommendations

- 1. Intervention strategies like digital detox or digital literacy programs at every level (Students & Professional).
- 2. Mental health education and the development of self-regulation skills as part of the curriculum.
- 3. Policies initiatives aimed at promoting ethical technology designs.

- 4. Schools, parents and mental health professionals are encouraged to collaborate in identifying at-risk individuals and providing the necessary support systems.
- 5. Clinicians can work collaboratively with youth and their families, using open, nonjudgmental and developmentally appropriate approaches to reduce potential harms from social media and smartphone use, including education and practical problem-solving.
- 6. There is a need for public awareness campaigns and social policy initiatives that promote nurturing home and school environments that foster resilience as youth navigate the challenges of adolescence in today's world.

Practical Implications

The identification of distinct SMA profiles and their psychosocial antecedents has important implications for intervention and prevention strategies. Tailored strategies are crucial, as a universal approach may not effectively address the varied needs and risk factors present among social media users.

Therapeutic Interventions

Psychological treatments like Cognitive Behavioral Therapy (CBT) and Rational Emotive Behavior Therapy (REBT) have proven effective in targeting the root causes of social media addiction (SMA). These approaches assist individuals in challenging distorted beliefs about social approval, decreasing dependence on external validation, and fostering healthier coping strategies. Additionally, group therapy can be valuable for enhancing interpersonal skills and alleviating social anxiety by providing a supportive environment for real-life social interactions. Such interventions should also incorporate training in digital literacy and mindfulness, encouraging users to become more aware of their online behaviors and intentions.

Future Research Directions

This study adds to the expanding body of research on social media addiction by offering a detailed, person-centered perspective on usage patterns and their psychological underpinnings. The application of latent profile analysis is especially valuable, as it uncovers population heterogeneity that traditional variable-centered approaches might miss. Future research could build on these findings by utilizing longitudinal data to track how social media addiction (SMA) profiles change over time. For example, do individuals transition between profiles in response to shifts in their social networks, employment status, or mental health? Additionally, cross-cultural investigations could determine whether these profiles remain consistent across different sociocultural settings or vary due to differing cultural attitudes toward technology, relationships, and identity.

Positive Impacts of Social Media on Mental Health

Despite ongoing concerns, social media can have a positive impact on mental health when used mindfully and in moderation. One key benefit is its ability to strengthen social connectedness. It allows individuals to maintain relationships across distances, reconnect with old friends, and form new bonds based on shared interests or experiences. This sense of connection is especially important for those who might otherwise feel isolated, such as people with chronic illnesses, residents of rural areas, or members of marginalized groups.

Negative Impacts of social media on mental Health

Despite its benefits, social media is often associated with negative mental health effects, especially when use becomes excessive or emotionally driven. A significant concern is the rising rates of anxiety and depression among heavy users. Numerous studies have found a strong link between extended screen time and increased psychological distress. Many users experience a fear of missing out (FOMO), which can lead to compulsive checking, disrupted sleep patterns, and reduced satisfaction with offline life.

Limitations of the Study

On the one hand, the study had several limitations. First, there is a time constraint. The research was primarily written in a short period. It was impairing research, limiting data collection and analysis. Such a constraint is critical since more time would enable a scholar to cover the topic more profoundly. Also, secondly, the research limitation relates to small sample size and generalizability. A small sample might quickly be biased. It was performed among a small number of people. Thus, issue findings answers will not be generally true and cannot be leaned to a larger portion. This, in its turn, affected reliability. Finally, another perspective from which the survey can be biased is a response. Since the data was self-reported, people could get induce by social desirability, personal predictive direction and worded question.

REFERENCES

- ^{14.} Altinay, L., Alrawadieh, Z., Hudec, O., Urbančíková, N., & Arici, H. E. (2023). Modelling social inclusion,
- ^{15.} self-esteem, loneliness, psychological distress, and psychological resilience of refugees: Does hospitableness matter?. Journal of Business Research, 162, 113901.
- ^{16.} Chatterjee, D., & Rai, R. (2023). Behind the screens: Proposing a mentalization-based theoretical model of
- ¹⁷ problematic Internet use. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 17(5).
- ¹⁸. Chayko, M. (2020). Superconnected: The internet, digital media, and techno-social life. SAGE
- ^{19.} Publications, Incorporated.
- ^{20.} Chemnad, K., Aziz, M., Belhaouari, S. B., & Ali, R. (2023). The interplay between social media use and



- ^{21.} problematic internet usage: Four behavioral patterns. Heliyon, 9(5).
- ^{22.} Choi, D.-H., & Noh, G.-Y. (2020). Associations between social media use and suicidal ideation in South
- ²³ Korea: mediating roles of social capital and self-esteem. Health communication, 35(14), 1754-1761.
- ^{24.} Derevensky, J., Marchica, L., Gilbeau, L., & Richard, J. (2022). Behavioral addictions in children: A focus
- ^{25.} on gambling, gaming, internet addiction, and excessive smartphone use. In Handbook of Substance Misuse and Addictions: From Biology to Public Health (pp. 2941-2964). Cham: Springer International Publishing.
- ^{26.} Drozda, N. A., & Delmonico, D. (2024). Sex addiction 101: Empirical support, treatment considerations,
- ^{27.} and future directions. Journal of Addictions & Offender Counseling, 45(1), 111-131.
- ^{28.} Dulai, J., & Jaspal, R. (2024). Social connectedness and identity resilience buffer against minority stress
- ^{29.} and enhance life satisfaction in ethnic and sexual minorities in the UK. Trends in Psychology, 1-29.
- 30. Duradoni, M., Severino, F. P., Colombini, G., & Guazzini, A. (2024). Development and Validation of the
- ^{31.} Fomsumerism Scale (FOMS): A New Measure for Fear of Missing Out-Driven Consumerism. Psychological Reports, 00332941251343548.
- ^{32.} Enginkaya, E., & Sağlam, M. H. (2025). Social Commerce Platforms Role in FoMO driven consumption:
- ^{33.} The Hidden psychological toll of continuous use. IEEE Access.
- ^{34.} Hammad, M. A., & Awed, H. S. (2023). Investigating the relationship between social media addiction and
- 35. mental health. Nurture, 17(3), 149-156.
- ^{36.} Idrees, B., Sampasa-Kanyinga, H., Hamilton, H. A., & Chaput, J. P. (2024). Associations between problem
- 37. technology use, life stress, and self-esteem among high school students. BMC Public Health, 24(1), 492.
- ^{38.} Jenkins, R. H., Shen, C., Dumontheil, I., Thomas, M. S., Elliott, P., Röösli, M., & Toledano, M. B. (2020).
- ^{39.} Social networking site use in young adolescents: Association with health-related quality of life and behavioural difficulties. Computers in human behavior, 109, 106320.
- ^{40.} Jo, H., & Baek, E. M. (2023). Predictors of social networking service addiction. Scientific Reports, 13(1),
- ^{41.} 16705.
- ^{42.} Jones, C. (2024). Exploration of a Novel Trans-Diagnostic Cognitive Behavioural Model of Social Media
- ⁴³. Use in Emerging Adult Populations (Doctoral dissertation, UCL (University College London).
- ^{44.} Kumar, H. (2021). Study on problems of ageing With special reference to rural Karnataka (Doctoral
- ^{45.} dissertation, Kuvempu University).
- 46. Kumar, S., & Kumar, S. (2024). Compulsive Use of Social Media and Unrestrained Buying Behavior:
- ^{47.} Delineating the Role of Social Comparison, Fear of Missing Out and Self Esteem. Journal of Internet Commerce, 23(4), 503-532.
- ^{48.} Kurşuncu, M. A., Griffiths, M. D., Baştemur, Ş., & Şal, F. (2023). Triangling in Family of Origin, Internet
- ^{49.} Addiction, and Social Media Addiction: What Is the Role of Experiential Avoidance in the Relationship?. International Journal of Mental Health and Addiction, 1-20.
- ^{50.} Lebni, J. Y., Toghroli, R., Abbas, J., NeJhaddadgar, N., Salahshoor, M. R., Mansourian, M., ... & Ziapour,
- A. (2020). A study of internet addiction and its effects on mental health: A study based on Iranian University Students. Journal of Education and Health Promotion, 9(1), 205.
- 51. Li, J., Zhou, Y., Lv, X., Leng, X., Jiang, X., & Gao, X. (2024). A network analysis approach to core
- ^{52.} symptoms and symptom relationships of problematic social media use among young adults. Information, Communication & Society, 27(6), 1229-1246.
- ^{53.} Marttila, E., Koivula, A., & Räsänen, P. (2021). Does excessive social media use decrease subjective well-
- ^{54.} being? A longitudinal analysis of the relationship between problematic use, loneliness and life satisfaction. Telematics and Informatics, 59, 101556.
- ^{55.} Merino, M., Tornero-Aguilera, J. F., Rubio-Zarapuz, A., Villanueva-Tobaldo, C. V., Martín-Rodríguez, A.,
- ^{56.} & Clemente-Suárez, V. J. (2024, July). Body perceptions and psychological well-being: a review of the impact of social media and physical measurements on self-esteem and mental health with a focus on body image satisfaction and its relationship with cultural and gender factors. In Healthcare (Vol. 12, No. 14, p. 1396). MDPI.
- ^{57.} Mishra, J., Behera, M. R., Mitra, R., Samanta, P., Mahapatra, P. K., & Kar, S. (2024). Prevalence and impact
- ^{58.} of Internet Addiction Disorder among adolescents and young adults. The Open Public Health Journal, 17(1).
- ^{59.} Mittal, E., & Rani, T. (2024). Uses and gratifications of social networking use: Associations with social
- 60. capital and subjective well-being. Human Systems Management, 43(2), 215-233.
- 61. Nascimento, P., Oliveira, T., & Neves, J. (2025). Understanding SNS use reduction from the perspective of
- 62. the cognitive-affective model. Internet Research, 35(3), 1379-1405.
- 63. Nazari, A., Hosseinnia, M., Heydari, H., & Garmaroudi, G. (2025). Depression, anxiety, and stress
- ^{64.} associated with Internet addiction in Iranian general population: A cross-sectional study. Journal of Education and Health Promotion, 14(1), 52.
- 65. Oyighan, D., & Okwu, E. (2024). Social media for information dissemination in the digital era. RAY:
- ^{66.} International Journal of Multidisciplinary Studies, 10(1), 1-21.
- ^{67.} Peng, J., Wang, J., Chen, J., Li, G., Xiao, H., Liu, Y., ... & Zhang, Y. (2025). Mobile phone addiction was



- 68. the mediator and physical activity was the moderator between bullying victimization and sleep quality. BMC Public Health, 25(1), 1-13.
- 69. Prasad, S., Ait Souabni, S., Anugwom, G., Aneni, K., Anand, A., Urhi, A., ... & Oladunjoye, F. (2023).
- ^{70.} Anxiety and depression amongst youth as adverse effects of using social media: A Review. Annals of Medicine and Surgery, 85(8), 3974-3981.
- Purohit, H., Buntain, C., Hughes, A. L., Peterson, S., Lorini, V., & Castillo, C. (2025). Engage and Mobilize!
- ^{72.} Understanding Evolving Patterns of Social Media Usage in Emergency Management. Proceedings of the ACM on Human-Computer Interaction, 9(2), 1-39.
- 73. Qin, Y., Ge, G., Yang, P., Wang, L., Qiao, Y., Pan, G., ... & Geng, D. (2023). An update on adipose-derived
- ^{74.} stem cells for regenerative medicine: where challenge meets opportunity. Advanced Science, 10(20), 2207334.
- 75. Sassover, E., & Weinstein, A. (2022). Should compulsive sexual behavior (CSB) be considered as a
- behavioral addiction? A debate paper presenting the opposing view. Journal of behavioral addictions, 11(2), 166-179.
- 77. Saunders, J. B., Rumpf, H. J., Carragher, N., & Poznyak, V. (2025). The Development of and Rationale for
- 78. Gaming Disorder in ICD-11 and a Review of Available Assessment Tools. Current Addiction Reports, 12(1), 18.
- 79. Shetty, K. V., Shekar, C., Kumar, S., Marimuthu, P., Amritha, K. S., Suparna, S., & Bamney, U. (2023).
- ^{80.} Internet addiction among college students during the lockdown period of COVID-19 pandemic: An observational study from South India. Indian Journal of Community and Family Medicine, 9(2), 113-118.
- 81. Shi, C., & Huang, X. (2025). Optimizing Social Structures to Improve Adolescents' Physical Health: A
- 82. Structural Functionalism Approach in China. International Journal of Education and Humanities, 5(1), 114-125.
- 83. Strahler, J., Moser, L., & Wachten, H. (2023). Orthorexic Eating and Addictions: Links with Substance Use,
- ^{84.} Behavioral Addictions, and Research Gaps. In Eating Disorders (pp. 1327-1352). Cham: Springer International Publishing.
- 85. Tandon, A., Laato, S., Islam, N., & Dhir, A. (2025). Social comparisons at social networking sites: how
- 86. social Media-induced fear of missing out and envy drive compulsive use. Internet Research, 35(2), 691-718.
- 87. Tyagi, A. K., Richa, & Gaikwad, S. M. (2024). Application and Future Trends in Online Social Networking
- ^{88.} for the Next Generation. Online Social Networks in Business Frameworks, 133-158.
- 89. Uddin, H., & Hasan, M. K. (2023). Family resilience and neighborhood factors affect the association
- ^{90.} between digital media use and mental health among children: does sleep mediate the association? European Journal of Pediatrics, 182(6), 2521-2534.
- 91. Vaghefi, I., Negoita, B., & Lapointe, L. (2023). The path to hedonic information system use addiction: a
- ⁹² process model in the context of social networking sites. Information Systems Research, 34(1), 85-110.
- 93. West, M., Rice, S., & Vella-Brodrick, D. (2024). Adolescent Social Media Use through a Self-
- ^{94.} Determination Theory Lens: A Systematic Scoping Review. International journal of environmental research and public health, 21(7), 862.
- 95. Woodward, M. J., McGettrick, C. R., Dick, O. G., Ali, M., & Teeters, J. B. (2025). Time Spent on Social
- ^{96.} Media and Associations with Mental Health in Young Adults: Examining TikTok, Twitter, Instagram, Facebook, Youtube, Snapchat, and Reddit. Journal of Technology in Behavioral Science, 1-11.
- ^{97.} World Health Organization. (2024). Achieving well-being: a global framework for integrating well-being
- ^{98.} into public health utilizing a health promotion approach. World Health Organization.
- 99. Yang, Q., Xu, Y., & Van den Bos, K. (2024). Social network site use and materialistic values: the roles of
- ^{100.} self-control and self-acceptance. BMC psychology, 12(1), 55.
- ¹⁰¹ Yilmaz, R., & Karaoglan Yilmaz, F. G. (2023). Problematic internet use in adults: the role of happiness,
- ^{102.} psychological resilience, dispositional hope, and self-control and self-management. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 41(3), 727-745.
- ¹⁰³ Zhang, Z. (2023). Validation of self-determination scale: an experiential consumption perspective. Journal
- ^{104.} of Business and Management, 28(2), 89-119.