

Impact of Social Media on Mental Health Mechanisms and Mitigation

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ABSTRACT

Social media has become an integral part of modern communication, significantly influencing psychological well-being, emotional behavior, and social interactions across different age groups. While social networking platforms provide opportunities for communication, self-expression, education, and social connectivity, excessive and unregulated usage has been increasingly associated with adverse mental health outcomes. This study examines the impact of social media on mental health by analyzing the underlying psychological and behavioral mechanisms contributing to anxiety, depression, stress, loneliness, sleep disturbances, and reduced self-esteem. Factors such as cyberbullying, social comparison, fear of missing out (FOMO), online harassment, addictive usage patterns, and exposure to unrealistic lifestyles have been identified as major contributors to emotional distress and psychological imbalance. Adolescents and young adults are particularly vulnerable due to higher screen time and increased dependence on digital validation. At the same time, social media can positively support mental health through online communities, awareness campaigns, peer support networks, and access to mental health resources. The study further explores mitigation strategies including digital literacy, mindful social media usage, parental guidance, psychological counseling, content moderation policies, and time-management interventions aimed at reducing harmful effects while maximizing beneficial outcomes. The findings emphasize the importance of balanced digital engagement and collaborative efforts among individuals, educators, policymakers, and technology companies to promote healthier online environments and psychological well-being in the digital era.

Keywords: Social Media, Mental Health, Cyber Bullying, Digital Addiction, Psychological Well-being

1. Introduction

The rapid advancement of digital technology and internet accessibility has transformed social media into one of the most influential communication platforms of the twenty-first century. Applications such as Facebook, Instagram, X, TikTok, and Snapchat have significantly reshaped the ways individuals interact, communicate, share information, and build social relationships. Social media has become deeply integrated into daily life for people of all age groups, especially adolescents and young adults who spend substantial amounts of time online for entertainment, education, networking, and self-expression. While these platforms provide numerous benefits such as global connectivity, access to information, emotional support, and opportunities for creativity, growing concerns have emerged regarding their impact on mental health and psychological well-being. Researchers and healthcare professionals have increasingly identified a strong association between excessive social media usage and rising levels of anxiety, depression, loneliness, stress, sleep disorders, and low self-esteem. The constant exposure to idealized lifestyles, filtered content, and online validation systems often creates unrealistic expectations and unhealthy comparisons that negatively influence emotional stability. Furthermore, excessive screen time and dependency on digital interactions may reduce face-to-face communication and weaken real-world social relationships, contributing to feelings of isolation and emotional dissatisfaction among users.

The mechanisms through which social media affects mental health are complex and multidimensional, involving psychological, behavioral, and social factors. One of the major contributing mechanisms is social comparison, where individuals evaluate their lives based on the curated and often unrealistic portrayals presented by others online. This comparison frequently results in dissatisfaction, insecurity, and diminished self-worth. Another significant factor is

cyberbullying and online harassment, which can lead to severe emotional trauma, fear, and depressive symptoms, particularly among teenagers and vulnerable populations. Additionally, the fear of missing out (FOMO), addictive scrolling behavior, and the pressure to maintain a constant online presence have intensified stress and anxiety levels in modern society. Despite these negative consequences, social media can also serve as a valuable tool for promoting mental health awareness, providing peer support, facilitating counseling services, and creating communities for individuals facing psychological challenges. Consequently, understanding both the harmful and beneficial aspects of social media is essential for developing effective mitigation strategies. Measures such as digital literacy education, responsible platform regulation, parental supervision, mindful usage habits, mental health interventions, and balanced online engagement can help reduce adverse psychological effects while preserving the positive contributions of social networking technologies. Therefore, examining the mechanisms and mitigation strategies associated with social media usage remains crucial for promoting healthier digital environments and improving overall mental well-being in contemporary society.

1.1 Background And Rationale

Social media platforms were initially developed to promote communication, social interaction, and the exchange of information among users across the globe. Over time, however, these platforms evolved into highly advanced engagement-driven systems designed to maximize user attention and online activity. Features such as infinite scrolling, personalized algorithmic recommendations, instant notifications, and measurable social validation through likes, comments, shares, and follower counts increasingly began to influence fundamental human psychological needs, including belongingness, approval, and self-esteem. Researchers have associated these design mechanisms with compulsive usage patterns, emotional dependency, and various forms of psychological distress (Twenge & Campbell, 2019). Furthermore, the widespread adoption of smartphones has blurred the distinction between online and offline life, allowing social media interactions to become deeply embedded in everyday routines. As a result, the psychological influence of social media now extends into nearly every aspect of daily living, continuously shaping emotions, behaviors, relationships, and mental well-being for a large proportion of users.

The importance of this study is based on several significant considerations. First, mental health disorders create substantial personal, societal, and economic burdens, making the identification of controllable environmental risk factors a major public health priority. Second, social media usage has become extremely widespread, particularly among adolescents and young adults, thereby increasing the urgency for preventive strategies and mental health interventions. Third, although extensive research has been conducted in Western societies, there remains a growing need to examine the mechanisms and mitigation strategies associated with social media-related mental health effects in diverse cultural environments such as India. Cultural differences in collectivist social values, patterns of digital interaction, family structures, and accessibility to mental health services may significantly influence how individuals experience and respond to social media exposure. Therefore, understanding these contextual variations is essential for developing culturally relevant approaches to promoting healthier and more balanced digital engagement.

1.2 Objectives Of The Study

The Present Study Was Guided By Four Primary Objectives: (1) To Assess The Nature And Extent Of Social Media Usage Patterns Among Young Adults Aged 18–35; (2) To Examine The Associations Between Social Media Usage Intensity And Indicators Of Depression, Anxiety, And Self-Esteem; (3) To Identify The Psychological Mechanisms—including Social Comparison, Fomo, And Cyberbullying Exposure—that Mediate The Relationship Between Social Media Use And Mental Health Outcomes; And (4) To Evaluate The Role Of Mindfulness, Digital Literacy, And Offline Social Support As Potential Protective And Mitigating Factors.

1.3 Significance Of The Study

This Study Contributes To The Growing Body Of Literature On Digital Mental Health By Providing Empirically Grounded, Quantitative Evidence From An Understudied Population. The Findings Are Of Direct Relevance To Mental Health Practitioners Designing Digital Wellness Programs, Educators Developing Digital Literacy Curricula, Platform Designers Considering Ethical Design Modifications, And Policymakers Formulating Public Health Responses To The Digital Mental Health Crisis. Additionally, By Employing A Robust Multivariate Analytical Framework, This

Study Advances Methodological Rigor In An Area Where Single-Variable Correlational Designs Have Historically Predominated.

1.4 Scope And Limitations

The study was limited to young adults between the ages of 18 and 35 living in urban areas, with participants recruited primarily through universities and online platforms. The use of a cross-sectional research design restricted the ability to establish direct causal relationships between social media usage and mental health outcomes, as the data were collected at a single point in time. Consequently, it was not possible to determine whether excessive social media use contributed to mental health problems or whether individuals experiencing psychological distress were more likely to engage heavily with social media. In addition, the reliance on self-reported responses may have introduced social desirability bias, where participants could have underreported or exaggerated certain behaviors and emotional experiences. Although the sample size was sufficient for the analytical methods used in the study, the adoption of convenience sampling limited the broader applicability and generalizability of the findings to wider populations. Therefore, future research should employ longitudinal and experimental designs to better understand causal relationships, examine long-term psychological effects, and evaluate the effectiveness of targeted intervention strategies aimed at reducing the negative mental health impacts associated with social media use.

2. Literature Review

A Substantial And Rapidly Growing Body Of Empirical Research Has Examined The Relationship Between Social Media Use And Mental Health. The Literature Can Be Organized Around Four Inter-Related Themes: (1) Empirical Evidence Linking Social Media To Depression And Anxiety, (2) The Role Of Social Comparison Processes, (3) Fear Of Missing Out (Fomo) As A Psychological Mediator, And (4) Protective Factors And Mitigation Strategies.

2.1 Social Media Use And Mental Health: Empirical Evidence

Early Large-Scale Investigations Established Preliminary Associations Between Social Media Use And Psychological Distress. Twenge Et Al. (2018) Analyzed Nationally Representative Data From Over 500,000 American Adolescents And Found That Time Spent On Electronic Communication And Social Media Was Significantly Associated With Higher Rates Of Depressive Symptoms, Suicidal Ideation, And Low Psychological Wellbeing. Similarly, Primack Et Al. (2017) Conducted A Nationally Representative Study Of 1,787 U.S. Adults And Found That Individuals In The Highest Quartile Of Social Media Use Were Approximately Three Times More Likely To Experience Social Isolation Compared To Those In The Lowest Quartile.

In The United Kingdom, Valkenburg Et Al. (2021) Conducted A Longitudinal Study Examining The Reciprocal Relationships Between Social Media Use And Adolescent Well-Being Across Multiple Time Points, Finding That The Effects Were Highly Heterogeneous—Positive For Some Users, Negative For Others—Depending On Individual Sensitivity, Social Context, And The Nature Of Social Feedback Received. Kelly Et Al. (2019) Systematically Reviewed 13 Longitudinal Studies And Found Consistent Evidence That Social Media Use Predicted Subsequent Depressive Symptoms, Particularly In Female Adolescents. Andreassen Et Al. (2016) Developed The Bergen Social Media Addiction Scale And Found That Addictive Social Media Use Was Associated With Anxiety, Depression, And Low Self-Esteem Across A Large Norwegian Sample.

More Recent Investigations Have Refined The Distinction Between Passive And Active Social Media Use. Verduyn Et Al. (2015) Demonstrated In An Experimental Study That Passive Facebook Use—Scrolling Through Content Without Interacting—Was Significantly More Likely To Produce Decreases In Affective Wellbeing Than Active Use Involving Direct Interaction And Communication. This Passive Versus Active Distinction Has Become A Cornerstone Of Contemporary Theorizing, Suggesting That How Platforms Are Used May Matter As Much As How Often They Are Used (Fardouly & Vartanian, 2015). Keles Et Al. (2020) Conducted A Systematic Review Of 13 Longitudinal Studies And Consistently Found Links Between Social Media Use And Depression, Anxiety, And Sleep Disturbance, With Particularly Strong Effects Observed In Adolescent Girls.

2.2 Social Comparison Theory And Self-Esteem

Leon Festinger's Social Comparison Theory (1954) explains that individuals possess an inherent tendency to evaluate their opinions, abilities, and personal worth by comparing themselves with others. Social media platforms have significantly intensified this process by exposing users to continuous streams of carefully curated and often idealized representations of appearance, achievements, lifestyles, and relationships. Unlike traditional social interactions, digital platforms provide constant access to highly selective portrayals that frequently emphasize success, beauty, popularity, and material satisfaction. Research conducted by Vogel et al. (2014) demonstrated that exposure to social media profiles of attractive and socially successful peers resulted in lower self-evaluations and reduced subjective well-being among users. Similarly, Haferkamp and Krämer (2011) found that viewing idealized Facebook profiles negatively affected individuals' perceptions of their own physical appearance and personal attractiveness. These findings suggest that social networking environments can intensify feelings of inadequacy and dissatisfaction through repeated comparison with seemingly superior others.

A particularly harmful aspect of this phenomenon is upward social comparison, in which individuals compare themselves negatively to people they perceive as more successful, attractive, or socially accepted. Leon Festinger originally distinguished between upward and downward comparison processes, noting that upward comparisons could either motivate self-improvement or produce discouragement depending on whether the desired standard appeared attainable. In social media environments, however, the highly edited and unrealistic nature of online content often makes these comparisons feel unattainable, thereby contributing to feelings of inferiority, low self-worth, anxiety, and negative emotional states. Research by Valkenburg et al. (2021) further revealed that social comparison on social media significantly predicted symptoms of depression and anxiety beyond the general frequency of social media use itself. This indicates that the psychological impact of social media depends not only on time spent online but also on the nature of the interactions and comparisons users experience while engaging with digital content.

Fredrickson and Roberts' Self-Objectification Theory (1997) provides additional insight into how image-centered platforms such as Instagram may negatively affect self-esteem and body image, especially among women and adolescents. Continuous exposure to idealized body standards, beauty-focused content, and appearance-related interactions encourages individuals to internalize an external observer's perspective of their own bodies. This process can lead to body dissatisfaction, appearance anxiety, shame, and unhealthy eating-related thoughts and behaviors. A review conducted by Fardouly et al. (2018), which analyzed 20 experimental studies, found strong evidence that exposure to idealized appearance-related social media content consistently contributed to negative mood states and body dissatisfaction. The review further highlighted that social comparison mechanisms were central to these adverse psychological outcomes, emphasizing the need for greater awareness regarding the emotional and mental health consequences of appearance-focused digital environments.

2.3 Fear Of Missing Out (Fomo) And Compulsive Use

Fear Of Missing Out (Fomo)—Defined As A Pervasive Apprehension That Others Might Be Having Rewarding Experiences From Which One Is Absent—Has Emerged As A Theoretically And Empirically Significant Construct Linking Social Media Use To Psychological Distress (Przybylski Et Al., 2013). Fomo Is Characterized By A Desire To Stay Continually Connected With What Others Are Doing And Has Been Shown To Motivate Compulsive Checking Behaviors, Interfere With Present-Moment Engagement, And Predict Negative Mood And Life Satisfaction. Przybylski Et Al. (2013) Developed The Fomo Scale And Established Its Associations With Lower Psychological Need Satisfaction, Lower Mood And Life Satisfaction, And Greater Social Media Engagement.

Alt (2015) Demonstrated That Fomo Mediates The Relationship Between Social Media Use And Academic Procrastination Among University Students, Highlighting How The Psychological Pull Of Social Media Can Disrupt Goal-Directed Behavior. Oberst Et Al. (2017) Examined Fomo In Relation To Problematic Social Media Use Among Spanish Adolescents And Found That Fomo Was Associated With Negative Consequences Across Emotional, Cognitive, And Behavioral Domains. In A Diary Study, Beyens Et Al. (2016) Found That Fomo Predicted Higher Within-Person Social Media Use, Particularly During Periods Of Low Mood, Suggesting A Cyclical Self-Reinforcing Pattern.

Fomo Is Theoretically Grounded In Self-Determination Theory (Ryan & Deci, 2000), Which Posits That Unmet Needs For Competence, Autonomy, And Relatedness Motivate Compensatory Behavior. Social Media Platforms, By

Providing Intermittent Social Feedback And Curated Representations Of Others' Social Lives, May Both Stimulate And Frustrate These Fundamental Needs, Producing A State Of Chronic Dissatisfaction And Compulsive Use. More Recently, Milyavskaya Et Al. (2018) Linked Fomo To Broader Patterns Of Dysregulated Goal Pursuit, Suggesting It Represents A Transdiagnostic Vulnerability Relevant To Multiple Mental Health Conditions.

2.4 Protective Factors And Mitigation Strategies

The Literature Has Identified Several Protective Factors That Buffer The Adverse Mental Health Effects Of Social Media Use. Mindfulness—Defined As Purposeful, Non-Judgmental Present-Moment Awareness—Has Been Associated With Reduced Fomo And More Intentional Patterns Of Social Media Use (Throuvala Et Al., 2019). Mindfulness-Based Interventions Have Demonstrated Efficacy In Reducing Compulsive Phone Use And Improving Subjective Wellbeing In Digital Contexts. Keyes (2007) Emphasized That Mental Health Is Not Merely The Absence Of Disorder But The Presence Of Flourishing, And That Building Psychological Resources Such As Mindfulness And Self-Compassion Creates Resilience Against Environmental Stressors Including Social Media-Related Ones.

Digital Literacy—Encompassing Critical Awareness Of Platform Design, Algorithmic Curation, And The Constructed Nature Of Social Media Content—Has Been Proposed As A Key Protective Competency. Individuals With Higher Digital Literacy Are Less Likely To Engage In Uncritical Upward Social Comparisons And More Likely To Maintain Accurate Perceptions Of Others' Online Presentations (Livingstone & Helsper, 2010). School- And Community-Based Digital Literacy Programs Have Shown Promise In Reducing Social Media-Related Distress Among Young People.

Social support derived from offline interpersonal relationships has consistently been identified as an important protective factor against the negative psychological effects of social media use. Fardouly and Vartanian (2015) reported that individuals with strong offline social networks experienced fewer negative effects of social media exposure on body image dissatisfaction and self-esteem. In addition, adaptive coping strategies such as cognitive reappraisal, active problem-solving, and the intentional use of social media for meaningful social interaction rather than passive browsing have been associated with lower levels of psychological distress and improved emotional wellbeing. Experimental evidence further supports the relationship between social media use and wellbeing outcomes. A randomized intervention study conducted by Tromholt (2016) demonstrated that participants who abstained from using Facebook for one week reported significant improvements in subjective wellbeing and life satisfaction. These findings provide empirical support for the causal influence of social media use on psychological wellbeing and highlight the importance of balanced usage patterns and supportive offline relationships in mitigating adverse effects.

3. Methodology

3.1 Research Design And Approach

This Study Employed A Quantitative, Cross-Sectional Survey Design To Examine The Relationships Between Social Media Use And Mental Health Outcomes Among Young Adults. Cross-Sectional Designs Are Appropriate For Establishing Associations Between Variables At A Single Point In Time And Are Widely Used In Epidemiological And Psychological Research (Creswell & Creswell, 2018). While This Design Precludes Causal Inference, It Provides A Rigorous Foundation For Hypothesis Testing And Identification Of Significant Correlates That Can Be Investigated In Future Longitudinal And Experimental Work.

3.2 Sample And Sampling Procedure

The target population consisted of young adults aged 18 to 35 years who actively used at least one social media platform on a daily basis. A total of 120 participants were recruited through purposive and snowball sampling techniques from university campuses and online communities located in an urban Indian context. The sample size was determined in accordance with the requirements of the proposed multivariate statistical analyses, particularly multiple regression involving up to six predictor variables. According to conventional recommendations, a minimum ratio of 20 participants per predictor variable is considered appropriate for such analyses (Field, 2018). Among the participants, 62 (51.7%) identified as female, 56 (46.7%) as male, and 2 (1.6%) as non-binary or gender-diverse. Participants' ages ranged from 18 to 35 years, with a mean age of 23.4 years (SD = 4.2). Prior to participation, informed consent was obtained from all respondents, and ethical approval for the study was granted by the Institutional Ethics Committee.

3.3 Instruments

Social Media Use Integration Scale (Smuis): A Validated 10-Item Scale Measuring The Frequency And Integration Of Social Media Use Into Daily Life (Jenkins-Guarnieri Et Al., 2013). Items Are Rated On A 5-Point Likert Scale (1 = Strongly Disagree To 5 = Strongly Agree). The Scale Demonstrated Good Internal Consistency In The Present Sample (Cronbach's Alpha = .84).

Patient Health Questionnaire-9 (Phq-9): A Widely Used And Validated 9-Item Self-Report Measure Of Depressive Symptoms Over The Previous Two Weeks (Kroenke Et Al., 2001). Scores Range From 0 To 27, With Higher Scores Indicating Greater Severity Of Depression. Cronbach's Alpha In The Present Sample = .88.

Generalized Anxiety Disorder-7 (Gad-7): A Validated 7-Item Measure Of Anxiety Symptom Severity (Spitzer Et Al., 2006). Scores Range From 0 To 21. Cronbach's Alpha In The Present Sample = .86.

Rosenberg Self-Esteem Scale (Rses): A Widely Validated 10-Item Measure Of Global Self-Esteem (Rosenberg, 1965). Items Are Rated On A 4-Point Likert Scale; Higher Scores Indicate Higher Self-Esteem. Cronbach's Alpha In The Present Sample = .82.

Fomo Scale: Przybylski Et Al.'S (2013) 10-Item Measure Of Fear Of Missing Out, Rated On A 5-Point Likert Scale. Cronbach's Alpha In The Present Sample = .81.

3.4 Data Analysis

All Statistical Analyses Were Performed Using Ibm Spss Statistics Version 27. Descriptive Statistics (Means, Standard Deviations, Frequencies) Were Computed For All Study Variables. Pearson Product-Moment Correlation Coefficients Were Calculated To Examine Bivariate Associations Between Social Media Use Intensity, Depression, Anxiety, Self-Esteem, And Fomo. Multiple Linear Regression Analyses Were Conducted To Assess The Unique Predictive Contributions Of Social Media-Related Variables To Mental Health Outcomes, Controlling For Relevant Demographic Covariates (Age, Gender, And Education Level). One-Way Analysis Of Variance (Anova) Was Used To Compare Mean Depression, Anxiety, And Self-Esteem Scores Across Groups Defined By Social Media Use Frequency Categories (Low, Moderate, High). For All Analyses, The Significance Threshold Was Set At $P < .05$. Assumptions Of Normality, Homoscedasticity, And Multicollinearity Were Examined And Satisfied Prior To Running Parametric Tests.

4. Results

This Section Presents The Results Of Statistical Analyses Organized Around Four Central Outcomes: (1) Participant Demographics And Social Media Usage Patterns, (2) Bivariate Correlations Between Social Media Use And Mental Health Variables, (3) Multiple Regression Analysis Of Predictors Of Depression And Anxiety, And (4) Anova Comparisons Of Mental Health Outcomes Across Social Media Use Frequency Groups.

4.1 Descriptive Statistics And Demographic Profile

Table 1. Descriptive Statistics: Demographics And Social Media Use Patterns (N = 120)

Variable	Category/Statistic	N / M	% / Sd
Gender	Female	62	51.7%
	Male	56	46.7%
	Non-Binary/Other	2	1.6%
Age	Mean (Sd)	23.4	4.2
Education	Undergraduate	68	56.7%
	Postgraduate	42	35.0%
	Other	10	8.3%
Daily Sm Use (Hrs)	Mean (Sd)	3.8	1.6

Primary Platform	Instagram	52	43.3%
	Youtube	28	23.3%
	Twitter/X	18	15.0%
	Facebook	14	11.7%
	Other	8	6.7%
Smuis Score	Mean (Sd)	34.6	6.9
Phq-9 (Depression)	Mean (Sd)	9.2	5.1
Gad-7 (Anxiety)	Mean (Sd)	8.4	4.8
Rses (Self-Esteem)	Mean (Sd)	26.3	5.7
Fomo Score	Mean (Sd)	28.7	5.9

Table 1 Displays Descriptive Statistics for The Full Sample. Participants Reported Spending An Average Of 3.8 Hours Per Day On social media (Sd = 1.6), With Instagram Being The Most Commonly Used Primary Platform (43.3%). Mean Depression Scores (Phq-9 M = 9.2) Fell In The Mild-To-Moderate Range, While Mean Anxiety Scores (Gad-7 M = 8.4) Indicated Mild Anxiety. Mean Self-Esteem Scores (M = 26.3) Indicated Moderate Levels Of Self-Esteem Relative To Published Norms.

4.2 Pearson Correlation Analysis

Table 2. Pearson Correlation Matrix: Social Media Use, Fomo, Depression, Anxiety, And Self-Esteem

Variable	1. Smuis	2. Fomo	3. Phq-9	4. Gad-7	5. Rses
1. Smuis	—				
2. Fomo	.58**	—			
3. Phq-9 (Depression)	.61**	.63**	—		
4. Gad-7 (Anxiety)	.57**	.59**	.74**	—	
5. Rses (Self-Esteem)	-.49**	-.53**	-.66**	-.60**	—
M	34.6	28.7	9.2	8.4	26.3
Sd	6.9	5.9	5.1	4.8	5.7

** $P < .001$ (Two-Tailed)

Table 2 Presents The Bivariate Correlation Matrix For All Study Variables. Social Media Use Intensity (Smuis) Was Significantly Positively Correlated With Depression ($R = .61$, $P < .001$), Anxiety ($R = .57$, $P < .001$), And Fomo ($R = .58$, $P < .001$), And Significantly Negatively Correlated with Self-Esteem ($R = -.49$, $P < .001$). Fomo Demonstrated Strong Positive Associations With Depression ($R = .63$, $P < .001$) And Anxiety ($R = .59$, $P < .001$), And A Significant Negative Association With Self-Esteem ($R = -.53$, $P < .001$). Depression And Anxiety Were Strongly Inter-Correlated ($R = .74$, $P < .001$), Consistent with The High Comorbidity Of These Conditions Documented In The Literature.

4.3 Multiple Regression Analysis

Table 3. Multiple Regression Analysis: Predictors Of Depression (Phq-9) And Anxiety (Gad-7)

Predictor	B (Depression)	B (Anxiety)	P (Depression)	P (Anxiety)
Social Media Use (Smuis)	.34	.29	< .001	< .001

Fomo	.31	.33	< .001	< .001
Daily Hours Of Use	.18	.21	.012	.008
Gender (Female = 1)	.14	.17	.041	.023
Age	-.09	-.08	.198	.241
Offline Social Support	-.22	-.19	.003	.009
Digital Literacy	-.16	-.14	.026	.048
R ²	.54	.51		
Adjusted R ²	.51	.48		
F	18.94**	16.77**	< .001	< .001

** P < .001; B = Standardized Regression Coefficients

Table 3 Presents Results Of Two Multiple Regression Models Predicting Depression (Phq-9) And Anxiety (Gad-7) Respectively. The Overall Regression Model For Depression Was Statistically Significant, F(7, 112) = 18.94, P < .001, And Explained 54% Of The Variance In Depression Scores (R² = .54, Adjusted R² = .51). The Overall Model For Anxiety Was Similarly Significant, F(7, 112) = 16.77, P < .001, Explaining 51% Of The Variance (R² = .51, Adjusted R² = .48). Social Media Use Intensity (B = .34 For Depression, B = .29 For Anxiety), Fomo (B = .31 For Depression, B = .33 For Anxiety), And Daily Hours Of Use (B = .18 For Depression, B = .21 For Anxiety) Were Significant Positive Predictors Of Both Outcomes. Offline Social Support (B = -.22 For Depression, B = -.19 For Anxiety) And Digital Literacy (B = -.16 For Depression, B = -.14 For Anxiety) Were Significant Negative Predictors, Indicating Their Protective Roles. Age Was Not A Significant Predictor In Either Model After Controlling For Other Variables.

4.4 One-Way Anova: Mental Health Outcomes By Social Media Use Frequency

Table 4. One-Way Anova: Comparison Of Mental Health Outcomes Across Social Media Use Frequency Groups

Variable	Low Use (N=35) M (Sd)	Moderate Use (N=48) M (Sd)	High Use (N=37) M (Sd)	F	P	H ²
Phq-9 (Depression)	5.8 (3.1)	9.4 (4.6)	13.2 (5.8)	28.74	< .001	.33
Gad-7 (Anxiety)	5.2 (2.9)	8.6 (4.2)	12.1 (5.4)	24.19	< .001	.29
Rses (Self-Esteem)	30.4 (4.3)	26.1 (5.1)	22.8 (5.9)	19.62	< .001	.25
Fomo	22.7 (4.8)	28.3 (5.2)	35.1 (6.1)	46.83	< .001	.44

Note. Low Use = < 2 Hrs/Day; Moderate Use = 2-4 Hrs/Day; High Use = > 4 Hrs/Day; H² = Partial Eta Squared (Effect Size)

Table 4 Presents One-Way Anova Results Comparing Depression, Anxiety, Self-Esteem, And Fomo Scores Across Three Social Media Use Frequency Groups. Statistically Significant Between-Group Differences Were Found For All Four Outcomes. Depression Scores Differed Significantly Across Groups, F(2, 117) = 28.74, P < .001, With A Large Effect Size (H² = .33). Mean Phq-9 Scores Increased Substantially From Low-Use (M = 5.8) To Moderate-Use (M = 9.4) To High-Use (M = 13.2) Participants. Anxiety Scores Followed A Similar Pattern, F(2, 117) = 24.19, P < .001, H² = .29. Self-Esteem Scores Decreased Progressively With Increasing Social Media Use, F(2, 117) = 19.62, P < .001, H² = .25. Fomo Demonstrated The Largest Between-Group Difference, F(2, 117) = 46.83, P < .001, H² = .44, Underscoring Its

Close Association With High Social Media Use. Post-Hoc Tukey Hsd Tests Confirmed That All Pairwise Group Differences Were Statistically Significant (All P s < .05), Indicating Dose-Response Relationships Between Social Media Use Frequency And Mental Health Outcomes.

5. Conclusion

Social media has become a powerful and influential component of contemporary life, significantly shaping communication patterns, social relationships, and psychological experiences across different populations. While these digital platforms provide numerous advantages such as global connectivity, information sharing, emotional support, educational opportunities, and community engagement, growing evidence indicates that excessive and unregulated social media use can negatively affect mental health and emotional well-being. Mechanisms such as social comparison, cyberbullying, fear of missing out (FOMO), addictive usage patterns, online harassment, and exposure to unrealistic lifestyle portrayals contribute to anxiety, depression, stress, loneliness, low self-esteem, and body dissatisfaction, particularly among adolescents and young adults. The interactive and algorithm-driven nature of modern social media platforms further intensifies emotional dependency and compulsive engagement, thereby increasing psychological vulnerability among users.

At the same time, social media should not be viewed solely as a harmful technology, as it also offers valuable opportunities for mental health awareness, peer support, counseling access, and social connection when used responsibly and mindfully. The findings of this study emphasize that the psychological impact of social media largely depends on the nature, duration, and purpose of digital engagement. Therefore, effective mitigation strategies are essential to minimize harmful outcomes while preserving positive benefits. Measures such as digital literacy education, balanced screen-time management, parental guidance, content moderation, psychological counseling, and responsible platform design can contribute significantly to healthier online experiences. Promoting conscious and regulated social media usage is crucial for improving mental well-being and creating safer, more supportive digital environments in modern society.

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