

SOCIAL MEDIA ADDICTION AS A PREDICTOR OF SOCIAL ANXIETY AND THE MEDIATING ROLE OF SELF-ESTEEM AMONG UNIVERSITY NEW INTAKE.

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ABSTRACT

The rapid permeation of social media into everyday life has transformed the dynamics of communication, socialization, and identity formation globally. The pervasive use of social media among university students has raised concerns regarding its psychological impact, particularly on social anxiety. This study investigated the extent to which social media addiction predicts social anxiety among freshmen of Federal University Oye-Ekiti and examined the mediating role of self-esteem. A cross-sectional correlation survey design was adopted, with 250 randomly selected first-year students completing validated measures of social media addiction, self-esteem, and social anxiety. Pearson correlation analysis revealed that social media addiction was positively associated with social anxiety ($r = .45$, $p < .05$), while self-esteem was negatively correlated with both social media addiction ($r = -.38$, $p < .05$) and social anxiety ($r = -.42$, $p < .05$). Simple linear regression indicated that social media addiction significantly predicted social anxiety ($\beta = .45$, $t = 7.83$, $p < .05$), explaining 20% of the variance ($R^2 = 0.20$). Mediation analysis demonstrated that self-esteem partially mediated this relationship, with a significant indirect effect ($B = .14$, 95% CI [.09, .20]), while the direct effect of social media addiction on social anxiety remained significant ($B = .27$, $p < .001$). The role of self-esteem in explaining how social media use contributes to social anxiety was explained in the study and interventions were suggested. The study recommends that universities should organize programs and workshops aimed at promoting healthy social media habits among freshmen while emphasizing time management, digital literacy, and strategies to reduce dependence on online validation to prevent the escalation of social anxiety.

Keywords: Social media addiction, social anxiety, self-esteem, university freshmen

INTRODUCTION

The rapid permeation of social media into everyday life has transformed the dynamics of communication, socialization, and identity formation globally. Social media use in Nigeria is still increasing at a tremendous rate, with at least 43 million users noted in 2021 and likely to increase beyond 100 million users by 2026, according to projections (Sasu, 2023). Media platforms such as Facebook, Instagram, TikTok, Twitter (X), and Snapchat have become central in the lived experiences of young people, mainly university students who are reliant on digital spaces for information, leisure, social recognition, and contact with others. For many incoming students when joining university environments, social networking sites are instruments of agency that assist their negotiation of new academic and social realities.

This increasing dependence on these media, however, has heightened concerns regarding social media addiction, which is described as a behavioural condition characterized by an inability to control and a compulsive, excessive online engagement which interferes with users' well-being and daily functioning. Social media addiction shares essential features with other behavioural addictions, such as preoccupation, mood modification, loss of control, tolerance, withdrawal, and negative consequences (Griffiths, 2005; Liao & Peng, 2023). Young people are especially sensitive to online feedback mechanisms like likes, shares, and comments, developing a reward system that reinforces continuous engagement (Kuss & Griffiths, 2017). This need for digital approval becomes even more intense among freshmen entering new social environments, where online interactions take the place of face-to-face ones and become a source of transient emotional consolation. However, this dependence may amplify vulnerability to stress, fear of rejection,

and feelings of inadequacy - factors strongly associated with the development of social anxiety.

The transition to university is a critical developmental stage characterised by increased autonomy, academic adjustment, identity formation, and the need for social belongingness. It is no doubt that many students feel confused and pressured when trying to establish new networks, adjust to academic expectations, and fit into the campus environment (Gallagher, 2017). Most of these students turn to social media for a way to ease this adjustment but often feel otherwise due to heavy engagement. Research shows that when there is inadequate online engagement and validation, feelings of loneliness, exclusion, and anxiety become more heightened among students (Li & Ye, 2022; Deniz, 2021).

Such psychological strain is heightened through the Fear of Missing Out, pushing students to remain continually active online and reinforcing compulsive browsing behaviours (Li & Ye, 2022). So, if digital interaction replaces physical interaction, communication skills may worsen, and students may have greatly increased apprehension during real-life social interactions.

A major psychological mechanism by which social media use and anxiety are connected is self-esteem. According to Rosenberg, it means an individual's overall evaluation of personal worth (Rosenberg, 1965). Self-esteem plays a central role in emotional regulation, social adjustment, and mental health (Orth & Robins, 2014). Persons with high self-esteem show greater resilience, better coping abilities, and lower vulnerability to anxiety, while low self-esteem is characterised by withdrawal, negative self-view, and heightened fear of social rejection (Leary, 2001; Sowislo & Orth, 2013). Freshmen, who are still developing their identity and social connections, are particularly susceptible to self-esteem fluctuations, especially

when they are faced with idealised images online and upward social comparisons. Indeed, as Vogel et al. (2014) summarised, constant comparisons with peers perceived as more successful or attractive diminish self-esteem, reinforcing feelings of inferiority and inadequacy.

Digital environments often magnify these vulnerabilities. Even though moderate use of social media can momentarily boost self-esteem through the stimulation of social interaction and positive feedback, as Hawi and Samaha (2017) noted, intensive use triggers dependency on external validation, yielding precarious self-esteem that is rooted in curated digital avatars rather than genuine self-concepts. Over time, this can serve to escalate emotional distress, distort self-concept, and reinforce oxidant behaviour. Among university students, especially at institutions in Nigeria, such experiences could thwart psychosocial adjustment and worsen feelings of social anxiety. Students experience unique psychosocial challenges related to academic pressure, demands for independence, new peers, and adjustment to institution culture (Morris et al., 2012).

The rising dependence on social media among university freshmen has intensified concerns about its role in heightening social anxiety, particularly as excessive use fosters fear of negative evaluation, emotional dysregulation, and a persistent need for online validation (Bonetti et al., 2010; Gioia et al., 2021). Low self-esteem further increases vulnerability to addictive social media behaviours, reinforcing harmful upward social comparisons and negative self-perceptions (Qiu, 2024). Freshmen, who are already navigating heightened self-consciousness, new social environments, and unstable support networks, are especially susceptible to these psychological pressures (Teachman & Allen, 2007; Lund et al., 2018).

Empirical evidence consistently demonstrates links between problematic social media use, diminished self-esteem, and elevated social anxiety. Studies across different populations reveal that social media addiction predicts higher anxiety levels, with excessive engagement reinforcing avoidance behaviours and fear of evaluation (Donnelly & Kuss, 2016; Casale & Fioravanti, 2018). Meta-analyses by Wu et al. (2024) and Nan et al. (2024) confirm strong associations between problematic social media use and social anxiety symptoms. Research further indicates that social comparison and FoMO serve as critical mediators, intensifying anxiety and compulsive usage patterns (Dempsey et al., 2019).

Regarding self-esteem, Turel et al. (2014) and Dwivedi et al. (2018) show that addictive online behaviours often lead to lower self-esteem, while low self-esteem individuals tend to rely more on social media for reassurance, thereby reinforcing addiction. Vogel et al. (2014) highlight how upward social comparison reduces self-worth, and Hawi & Samaha (2017) find that heavy social media use erodes self-esteem over time. In university samples, findings demonstrate that social media addiction predicts higher anxiety, loneliness, and social fearfulness (Baltacı, 2019; Lozano-Blasco et al., 2020), and that self-esteem often functions as a mediator in these relationships (Stănculescu et al., 2022; Huang et al., 2024). However, few studies have explored these dynamics among Nigerian freshmen, despite their heightened exposure to digital environments. This gap underscores the need for context-specific investigations into how social media addiction influences social anxiety through the mediating role of self-esteem among university freshmen in Nigeria.

Research Objectives

The aim of this study is to examine the extent to which social media addiction predicts social anxiety among university freshmen while investigating the mediating role of self-esteem. The specific objectives are to:

- i. investigate the relationship among social media addiction, self-esteem, and social anxiety among New-intake of Federal University Oye-Ekiti.
- ii. determine the extent to which social media addiction influences social anxiety among New Intake of Federal University Oye-Ekiti.
- iii. examine the mediating role of self-esteem on the influence of social media on social anxiety among New Intake of Federal University Oye-Ekiti.

METHODS

Research Design

This study is a cross-sectional correlation survey design, that allows the relationship among variables to be investigated at a particular point in time. This design is considered fit for the investigation of the relationship that exists among social media addiction, self-esteem, and social anxiety, and for ascertaining the predictive influence of social media addition and the mediating role played by self-esteem.

Population and Setting

The population for this research includes the intake of 100-level students at Federal University Oye-Ekiti across all 14 faculties on three campuses: Oye, Aiyegbaju, and Ikole.

Sample and Sampling Technique

The total sample of 250 freshmen students were selected by stratified random sampling to ensure representation from different faculties in Federal University Oye-Ekiti. From each stratum, participants were randomly selected to account for diversity across academic disciplines.

Instruments

A well-structured research questionnaire was used for this study. The instrument is designed into four (4) sections (A-D). Section A contains items on the socio-demographic characteristics of the respondents, section B has items on social media addiction, section C on self-esteem while section D has items on social anxiety.

Social Media Addiction: Measured by means of the Social Media Addiction-Student Form Scale (SMA-SF) of Griffiths & Kuss (2017), a 12-item 5-point Likert scale assessing compulsive behavior, preoccupation, and negative consequences of social media use.

Self-esteem: Participants' self-esteem was assessed by the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965), a 10-item 4-point Likert scale measuring positive and negative self-evaluations.

Social Anxiety: It was assessed using the Liebowitz Social Anxiety Scale (LSAS) by Liebowitz (1987), a 24-item instrument measuring fear and avoidance in social and performance situations.

Procedure

The copies of questionnaire were administered to the participants physically across the selected faculties. Participation was completely voluntary, and ethical considerations were strictly observed, including informed consent, confidentiality, and anonymity.

Data Analysis

Data from the questionnaires were analyzed using the Statistical Package for Social Sciences (SPSS). The first objective was addressed through the correlation analysis, using Pearson correlation analysis to test the relationships among the variables. The second objective was linear regression analysis. Lastly the third objective was achieved using mediation analysis with PROCESS macro for SPSS examined self-esteem as a mediator in the relationship between social media addiction and social anxiety.

RESULTS

Table 1: investigate the relationship among social media addiction, self-esteem, and social anxiety among freshmen of Federal University Oye-Ekiti.

Variables	1	2	3
1 Social Media Addiction	1		
2 Self-Esteem	-.38*	1	
3 Social Anxiety	.45*	-.42*	1

*Significant $p < 0.05$

The Pearson correlation analysis in Table 1 showed that social media addiction was positively and significantly correlated with social anxiety ($r = .45$, $p < .05$), Conversely, self-esteem was negatively correlated with both social media addiction ($r = -.38$, $p < .05$) and social anxiety ($r = -.42$, $p < .05$). The result suggests that higher levels of social media addiction were associated with higher social anxiety among freshmen, and lower self-esteem was linked to higher social media addiction and elevated social anxiety.

Table 2: Simple linear regression showing the influence of social media addiction on social anxiety among freshmen of Federal University Oye Students

Predictor	B	SE	β	t	R	R ²	F	p
(Constant)	18.663	2.936		6.356				
Social media addiction	.279	.036	.445	7.826*	.44	.20	61.24*	.00

*Significant $p < 0.05$

The linear regression in Table 2 revealed that social media addiction significantly influences social anxiety ($\beta = .45$, $t = 7.83$, $p < .05$). The contribution of social media addiction in explaining the variance in social anxiety was 20% ($R^2 = 0.20$), and the model was significant, $F(1, 248) = 61.24$, $p < .00$.

Table 3: The mediating role of self-esteem on the influence of social media on social anxiety among freshmen of Federal University Oye-Ekiti.

Path	B	SE	B	t
Social Media Addiction → Self-Esteem	-0.35	0.041	-.38*	-8.54*
Self-Esteem → Social Anxiety	-0.4	0.045	-.42*	-9.11*
Social Media Addiction → Social Anxiety (Direct)	0.27	0.036	.30*	5.78*
Indirect Effect (Mediation)	0.14	0.023		

* $p < 0.05$

Mediation analysis revealed that self-esteem partially mediated the relationship between social media addiction and social anxiety. Social media addiction had a significant negative effect on self-esteem ($B = -.35$, $p < .001$), and self-esteem significantly predicted social anxiety ($B = -.40$, $p < .001$). The direct effect of

social media addiction on social anxiety remained significant ($B = .27, p < .001$), while the indirect effect through self-esteem was also significant ($B = .14, 95\% \text{ CI } [.09, .20]$), indicating partial mediation. These results suggest that self-esteem plays an important role in explaining how social media addiction contributes to social anxiety.

DISCUSSION

The findings on the relationship among the variables revealed that social media addiction was positively and significantly associated with social anxiety, while self-esteem was negatively correlated with both social media addiction and social anxiety. This suggests that higher levels of social media addiction are related to increased social anxiety, whereas higher self-esteem is linked to lower social anxiety and reduced addictive tendencies. These results align with prior studies that highlight the vulnerability of university freshmen to digital stressors, particularly when online interactions replace face-to-face engagements (Gallagher, 2017; Kuss & Griffiths, 2017).

Freshmen entering new social environments may rely excessively on social media for validation, which can amplify feelings of inadequacy and heighten fear of negative evaluation (Bonetti et al., 2010; Vogel et al., 2014). The negative correlation between self-esteem and social media addiction further supports the notion that reliance on digital affirmation undermines personal self-worth, reinforcing patterns of anxiety. Overall, these results underscore the interdependent nature of social media use, self-esteem, and social anxiety, confirming theoretical perspectives that addictive online behaviors foster psychological vulnerability during transitional developmental stages (Hawi & Samaha, 2017; Li & Ye, 2022).

The regression analysis demonstrated that social media addiction significantly predicts social anxiety among freshmen, accounting for 20% of the variance. This finding supports the hypothesis that compulsive engagement with social media contributes directly to heightened social anxiety, consistent with evidence suggesting that overuse of digital platforms reinforces maladaptive cognitive and emotional patterns (Donnelly & Kuss, 2016; Casale & Fioravanti, 2018). The significant predictive effect aligns with literature showing that continuous exposure to curated online lives, coupled with the pressure for social approval and fear of missing out, exacerbates apprehension in social interactions (Li & Ye, 2022; Gioia et al., 2021).

For freshmen, who are navigating new academic and social demands, the addictive tendencies inherent in social media use can disrupt emotional regulation and social adjustment, making them more prone to anxiety. These findings reinforce the position that social media addiction is a salient psychosocial risk factor for social anxiety in early university life and highlights the need for targeted interventions to moderate online behaviors and promote healthier coping mechanisms.

The mediation analysis indicated that self-esteem partially mediates the relationship between social media addiction and social anxiety. Social media addiction had a negative effect on self-esteem, which also predicted higher levels of social anxiety. The persistence of a significant direct effect indicates partial mediation, thereby suggesting that social media addiction contributes to social anxiety both independently and through its influence on self-esteem. This is in line with previous research underlining the idea that self-esteem serves as a psychological buffer against anxiety, and its erosion due to compulsive use of social

media amplifies vulnerability to social evaluative stress (Rosenberg, 1965; Orth & Robins, 2014; Stănculescu et al., 2022).

Freshmen, therefore, who are quite sensitive to peer validation in digital environments, may find fluctuations in self-worth when online interactions do not provide them with sufficient affirmation, which increases social anxiety. These findings identify self-esteem as an important mechanism by which social media addiction enhances psychological distress—a fact underpinning the necessity of interventions that reinforce self-concept and emotional resilience, to mitigate the adverse effects of digital dependence.

CONCLUSION

Social media use continues to shape students' social and emotional experiences, while exerting a significant influence on their psychological well-being. This study explores the influence of social media use on social anxiety while examining the moderating influence of self-esteem. It is evident from the study that social media addiction is a significant predictor of social anxiety among university freshmen. Excessive engagement with social media platforms reinforces reliance on digital validation, heightens fear of negative evaluation, and contributes to emotional dysregulation, thereby exacerbating social anxiety. The study also demonstrated that freshmen with lower self-esteem are particularly vulnerable, as diminished self-worth intensifies the psychological impact of addictive online behaviors. Furthermore, self-esteem was found to partially mediate the relationship between social media addiction and social anxiety, highlighting its critical role in shaping emotional responses to digital interactions.

Based on the results obtained, the study recommends that universities should organize programs and workshops aimed at promoting healthy social media habits

among freshmen while emphasizing time management, digital literacy, and strategies to reduce dependence on online validation to prevent the escalation of social anxiety. Likewise, interventions that strengthens self-esteem such as counseling services and peer-support initiatives should be implemented.

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