



Social Media Addiction Among Female Undergraduates: Examining the Roles of Self-Esteem and Age

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ARTICLE INFO

*Keywords: Age, Self-Esteem,
Social Media Addiction, Female
Undergraduates*

Received : 22, July

Revised : 24, August

Accepted: 30, September

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ABSTRACT

Young adults especially females have become obsessed with social media leading to a form of social media addiction. Studies have used different predictors to investigate social media addiction with varied results. This study examines the influence of self-esteem and age on social media addiction among female undergraduates in Abuja, Nigeria. Cross-sectional survey design was adopted while purposive sampling technique was utilized to select two private universities. Data were conveniently collected from 197 female undergraduates using validated scales and analysed using independent sample t-test to test two hypotheses which were accepted at $p < .05$ level of significance. The results indicate that self-esteem significantly influenced social media addiction [$t(194) = 2.21, p < .05$] such that undergraduates who reported high level of self-esteem reported higher level of social media addiction ($M = 84.33, SD = 24.86$) compared to undergraduates who reported low self-esteem ($M = 79.24, SD = 13.97$). However, age did not statistically influence social media addiction among study participants $t(194) = .02, p > .05$. The novelty of this study is that it is the first time self-esteem and age on social media addiction is investigated among the study population. The study recommends that parents, mental health professionals and other stakeholders should create awareness on the adverse effects of social media addiction on the overall psychological well-being among the study population and beyond.

INTRODUCTION

Social media addiction is described as a condition in which individuals spent so much time and energy utilising various social media platforms such as WhatsApp, Facebook, TikToks, Instagram, Snapchat or X(Twitter) and other forms of social media to the extent that it interferes with various parts of their daily routine (Famakinde et al., 2024). In the context of the present study, a social media addict would be considered as an individual with a compulsion to use social media technology such as to constantly checking status updates of others or stalking people's profiles (Fakrogha et al., 2025).

Social media addiction causes loss of sleep, difficulty concentrating, engaging in less physical activity, feeling anxious or depressed, being angry or frustrated, and feeling of envy are all stronger associations with frequent use of multiple accounts (Abi-Jaoude et al., 2020; Schimmele et al., 2021). In addition, individuals spend more time on social media each day than they do on eating, drinking, and physical interaction (Chandwani et al., 2025). Study has revealed that teenagers and young adults aged 16-24 spent 5 hours and 49 minutes on social media with females spending 12 hours and 11 minutes on social media each day (Georgiev, 2023; Montag et al., 2024). Some factors have been implicated to influence social media addiction. Two factors: self-esteem and age were investigated in this study. Self-esteem is considered in this study to influence social media addiction. Self-esteem describes how an individual feels about oneself considering the individuals in terms of self-confidence, or self-worth in any given situation or event (Minev et al., 2018). That is, it describes a person's overall sense of self-worth or personal value, or how much an individual appreciates and/or like oneself (Hepper, 2016).

Some studies have been investigated on self-esteem and social media addiction. For instance, Steinsbekk et al. (2020) data revealed that adolescents aged 10, 12 and 14 years old who scored low in self-esteem significantly scored higher in social media addictive behaviour. In addition, Ajayi et al. (2024) found social media usage as predictors of addictive gambling behavior among undergraduates. In one study, Liṭan (2025) found participants with lower self-esteem reported higher social media addiction compared to participants who reported higher levels of self-esteem.

Moreover, Perkovich (2021) who examined the effect of self-esteem on social media addiction confirmed that the lower the self-esteem of their participants, the higher they were addicted with social media use including Facebook, TikTok, Snapchat, and Instagram. One remote study found self-esteem as a strong predictor of voting behavior among youth participants (Ma et al., 2022; Roberts et al., 2025).

Additionally, it was thought that the participants' ages had an impact on their addiction to social media. The impact of age on social media addiction has been the subject of several studies, with varying degrees of success. For instance, Yang et al. (2020) discovered that social media addiction had a considerable

impact on teenagers between the ages of 13 and 18. Mari et al. (2018), who examined the age ranges of people who developed a social media addiction among 270 participants, found that those between the ages of 18 and 30 had higher scores (46.7%) than those in other age groups.

LITERATURE REVIEW

Social media addiction has been linked to sadness, relationship loss, and eventually low self-esteem, despite the fact that it is not formally recognized as a clinical condition. The findings of research on social media addiction have been mixed. In Nigeria, there are also insufficient research that link age and self-esteem to social media addiction, leaving gaps in our understanding. Thus, this study set out to investigate how age and self-esteem affected social media addiction in female students in Abuja, Nigeria.

The purpose of the study was to determine whether age and self-esteem will have an impact on social media addiction in female students in Abuja, Nigeria. The study will offer a body of knowledge regarding the relationship between age and self-esteem and social media addiction, particularly among Nigerian female undergraduates. Additionally, parents, school officials, and other interested parties would receive guidance on how to support teenagers who have a tendency to become hooked to social media before it becomes a psychological disease.

The purpose of the uses and gratifications theory (UGT, Katz & Blumler, 1974) is to explain why people use particular media categories, what they must use, and the satisfactions they get from doing so. For instance, according to a UGT study on mobile phone use, people use their phones for a variety of purposes, such as entertainment, mobility, and affection/sociability (Pervaiz et al., 2022). When used in this study, UGT illustrates how excessive usage of social media platforms (technology) for entertainment, information sharing, social contact, and opinion expression can result in addiction and disrupt people's daily routines. In addition, Media Dependency Theory (Ball-Rokeach & Delfleur, 1975; Ball-Rokeach, 1985,) is used in this study to complement the uses and gratification theory which posits that individuals are linked in three ways: the media, the users, and the social environment all of which influences motivations for media usage (So, 2012). In the context of this study, when a user's social and environmental needs are addressed, the use of social media is sustained thus allowing social media addictive behaviours to grow.

Hypotheses

H1: Female undergraduates who scored high in high self-esteem would significantly report higher on social media addiction than those who scored low in level self-esteem.

H2: There would be age differences on social media addiction among female undergraduates in Abuja, Nigeria.

METHODOLOGY

Research Design

Validated questionnaires were used to collect data in a cross-sectional survey approach. The dependent variable was social media addiction, and the independent variables were age and self-esteem. Because of their close proximity and active youth populations, two universities – Baze and Nile Universities – in the Federal Capital Territory of Abuja, Nigeria, were chosen for the study.

Participants

One hundred and ninety-seven (197) female undergraduate students who were conveniently chosen from two private universities in Abuja, Nigeria's Federal Capital Territory (FCT), participated in the study. Participants ranged in age from 16 to 25 ($M_{age} = 18.64$, $SD = 8.92$).

Sampling Techniques

Because the two private institutions are close to one another, the study population was chosen using the purposive sampling technique, and study participants were chosen using the convenience sampling technique.

Instruments

Data was gathered using two approved scales. Walter Hudson developed a 25-item Index of Self-Esteem Scale to measure self-esteem (1982). Respondents can choose from 1 (rarely or never), 2 (a little of the time), 3 (some of the time), 4 (a good part of the time), and 5 (most or all of the time) on the 5-point Likert scale. Examples include "I think I'm a beautiful person" and "I think that if people knew me well, they wouldn't like me." Ezeh et al. (2021) employed the scale with Cronbach's $\alpha = .93$ among Nigerian samples; in the current investigation, Cronbach's $\alpha = .89$ was attained. The Social Media Addiction Measure-Student Form (SMAS-SF), a 29-item measure with a 5-point Likert scale from strongly disagree to strongly agree, was used to assess social media addiction. Examples include "I am always active on social media to be instantly informed about what my kith and kin share" and "I prefer the friendships on social media over the friendships in real life." The higher scores suggest that the person considers himself to be addicted to social media. Cronbach's α is .86 in the current study and .93 in the scale composite.

To identify the researchers, a formal letter of introduction was obtained from the psychology department at Baze University in Abuja. Individual meetings with potential participants were held to extend an invitation to participate in the study. They were told that their answers would be kept private and that participation was entirely voluntary. The surveys took less than eighteen minutes to complete and were only distributed to people who consented to participate in the study. 200 questionnaires in all were dispersed and immediately gathered. Nevertheless, 197 questionnaires were included for the study after three that were only partially completed were eliminated during screening and coding.

Analysis of data IBM SPSS version 26 was used for data analysis. Both descriptive and inferential calculations were made. An independent sample t-test was used to evaluate the hypothesis, and it was accepted at the $p < .05$ level of significance.

RESULTS AND DISCUSSION

Table 1. Zero-Order Correlation of Study Variables

SN	Variable	Mean	SD	1	2	3	4
1	Social media addiction	82.04	20.76	-			
2	Self-esteem	79.56	8.13	.43**	-		
3	Age	20.18	2.04	.01	.05	-	

Note: N =197, * Significant at 0.05

The findings of the association between the study variables are shown in Table 1. The findings showed a strong positive correlation between social media addiction and self-esteem ($r = .43$, $p < .05$). Nonetheless, there was a relationship between social media addiction and age ($r = .05$, $p > .05$). This suggests that social media addiction increases with self-esteem.

H1: Compared to female students with low levels of self-esteem, individuals with high levels of self-esteem would report much more social media addiction. An independent sample t-test was used to evaluate the hypothesis, and Table 2 shows the outcome.

Table 2. Independent Samples T-Test of Self-Esteem on Social Media Addiction

Self-esteem	M	SD	t	df	p
High	84.33	24.86			
			2.21	194	< .05
Low	79.24	13.97			

The findings of the independent samples t-test of research participants' self-esteem about social media addiction are shown in Table 2. According to the study, social media addiction is significantly influenced by self-esteem [$t(194) = 2.21$, $p < .05$]. Undergraduates with high self-esteem reported higher levels of social media addiction ($M = 84.33$, $SD = 24.86$) than those with low self-esteem ($M = 79.24$, $SD = 13.97$). The theory was validated.

H2: The prevalence of social media addiction among female students in Abuja, Nigeria, would vary by age. Table 3 displays the results of the independent samples t-test used to test the hypothesis.

Table 3. Independent Samples T-Test of Age on Social Media Addiction

Age	M	SD	t	df	p
Old (≥ 20.2)	82.08	20.02			
			.02	194	> .05
Young (< 20.2)	82.02	21.48			

According to Table 3, age did not influence social media addiction among female undergraduates in Abuja, Nigeria: $t(194) = .02, p > .05$. The hypothesis was not supported.

The findings lend credence to the theory that among female undergraduates at two private colleges in Abuja, Nigeria, social media addiction would be strongly influenced by self-esteem. Compared to female undergraduates with low self-esteem scores, those with high self-esteem reported being more addicted to social media. This finding corroborated that of Pawar and Shah (2019), who discovered a strong and favorable correlation between social media addiction and self-esteem among Mumbai, India, undergraduate students.

These results, however, run counter to those of Perkovich (2021), who discovered that social media use, including Facebook, Instagram, TikTok, and Snapchat, was not associated with lower levels of self-esteem in female students. Additionally, the results run counter to those of Litan (2025), who discovered that people with higher levels of social media addiction also had lower levels of self-esteem, which in turn led to higher rates of despair. Due to the sample type and cultural sensitivity, the results would need to be taken with caution. The study population consisted primarily of female undergraduate students from two private universities.

Additionally, the results of this study show that age had no bearing on social media addiction, despite the fact that older students slightly reported higher levels of addiction than undergraduates of younger ages. This indicates that there was no age-related difference in the addicted behavior on social media. The results corroborate those of Afe et al. (2022), who discovered no discernible changes between females with smartphone addiction and those without. The results of this study contradict the conclusions of other researchers who have discovered age disparities, particularly for younger generations who were born into the Internet Era and whose personalities have been shaped in this new society (Fagbola et al., 2022). This indicates that social media use is not significantly influenced by age.

CONCLUSIONS AND RECOMMENDATIONS

The study's findings address the hypothesis that social media addiction among female undergraduates in Abuja will be considerably and favorably influenced by self-esteem. Age, however, had little bearing on study participants' addiction to social media. There are certain limitations to this study that need be addressed in future research. Since this study only included female

undergraduates, more research should be done with male undergraduates to find out how self-esteem affects their addiction to social media.

Furthermore, a longitudinal study that incorporates key informant interviews to corroborate data obtained through questionnaires is necessary because cross-sectional survey designs, which only collect data once, tend to introduce response bias. Additionally, the study only included 197 undergraduate students from two private universities, which limits the generalizability of the results. Public universities should be included in future research, and the sample size should be increased to allow for generalization of the results. Lastly, more research on undergraduates' addiction to social media should look at personality factors, learned helplessness, and peer pressure.

FURTHER STUDY

This research still has limitations, so further research on this topic is needed "Social Media Addiction Among Female Undergraduates: Examining the Roles of Self-Esteem and Age".

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