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Investigating the Preliminary Antecedents of Instagram Addiction: Evidence from Baze University's Undergraduate Students in Nigeria

Abstract: There is no doubt that Instagram is one of the most popular social media platforms that meets users' specific needs. However, the effects of addictive use on undergraduate students in developing countries, like Nigeria, have not been thoroughly studied. To fill this gap, this study, based on the Uses and Gratifications Theory, sought to find connections between the desire for fame, shortened attention spans, social validation, and Instagram usage addiction among undergraduate students at Baze University in Abuja, Nigeria. We used a quantitative research method to gather data and test our hypotheses. The findings showed strong and positive links between desire for fame, shortened attention spans, social validation, and Instagram addiction. The desire for fame was the most significant predictor of Instagram addiction among the respondents. Furthermore, the three independent variables accounted for a large portion of the variance in Instagram usage addiction. Our study suggests that addiction to Instagram among respondents is primarily driven by psychological rewards related to visibility,

external approval, and cognitive engagement. Therefore, the study highlights the need for tailored digital literacy programs that address the desire for fame, dependence on validation, and attention management in academic settings.

Keywords: fame aspiration; social validation; shortened attention span; Instagram addiction; media gratifications

Introduction

Social media has fundamentally transformed the landscape of human interaction, reshaping how individuals communicate, acquire information, and pursue personal or professional success. This is as result of its complex ecosystem that enables users to create, share, and engage with content in immersive virtual communities (Dhiman; 2024). Adebisi and Olayiwola (2019) infer that these platforms support self-expression, peer validation, and feedback exchange, especially among university students looking for identity affirmation. Research by Onun et al. (2023) shows that social media platforms have gone beyond their initial roles to become central in both academic and social settings. They serve as varied channels for sharing information, gaining knowledge, and developing personal brands. Awopetu et al. (2024) also document that these digital spaces offer new chances for networking and collaborative learning while introducing significant psychological challenges. Therefore, while these tools provide considerable benefits for modern students, they also pose serious cognitive, emotional, and social risks that need careful evaluation.

To understand Instagram usage patterns as one of social media platforms, we must recognize that Instagram is not just a standalone app but a form of “deep mediatization”, which is a technological-social setup that influences contemporary life (Hepp, 2020). Instagram’s mediatization includes not only a technological tool but a specific interactions and social practices that produce particular behaviors. Following Fernández (2018), we see that digital natives “live on platforms”, meaning their experiences are part of a larger media landscape where Instagram exists alongside many apps; from TikTok to banking apps; all contributing to their digital habits. This viewpoint is essential, as behaviors seen on Instagram cannot be fully understood without considering the larger ecosystem that defines modern university student life.

Globally, social media has shifted from being a secondary communication tool to an engaging environment where identity construction and public validation happen together (George et al., 2023). University students worldwide now curate their online presence not only to connect with others but to showcase aspirational lifestyles and earn social capital (Cronje, 2024). This shift has normalized performance-based interactions, where people actively build digital personas seeking likes, shares, and comments (Gindil & Backer, 2024). With platforms providing algorithmic visibility and quick feedback, the distinction between honest self-expression and strategic

content creation has blurred (Quijada, 2020). These dynamics have heightened psychological dependency, as users equate their digital popularity with personal worth and success (Shahzad et al., 2024).

Research shows that platforms like Instagram, Twitter, and Facebook are primarily used to satisfy psychological needs, particularly Instagram (Awopetu et al., 2024). Instagram stands out globally because of its focus on visual storytelling, which encourages addictive engagement patterns and curated identity projection, particularly among young people (Awopetu et al., 2024). To illustrate the extent of youth dependence on Instagram, Dhiman (2024) highlights that usage and dependency are prevalent among young people. Reis and Maia (2024) also connect Instagram addiction with life satisfaction and self-esteem in young adults. Young people's reliance on Instagram stems from unfulfilled personal desires, as identified by Ponnusamy et al. (2020).

In Africa, the situation is similar. The rise of mobile technology and better internet access has led to increased social media use, particularly among young adults and university students. Social media serves as a platform for sociopolitical discussion and entrepreneurship. It also reflects how African youth express their identity, showcase lifestyle ambitions, and connect with global cultures. As Gindil and Backer (2024) describe, apps like Instagram are outlets for African students to envision and simulate success in line with global trends. However, this engagement has consequences. Studies by Cronje (2024) show that extended social media use, especially for fame-seeking, can lead to social anxiety, procrastination, and reduced academic focus. Research by George et al. (2023) illustrates how excessive screen use negatively impacts the lives of young people across several African countries. Adedotun et al. (2024) observe that social media is shaping not only student experiences but also career ambitions within academic settings. Furthermore, Gindil and Backer (2024) highlight that among various social media platforms in Africa, Instagram is particularly influential because its visual appeal creates unique engagement patterns and dependencies that deserve attention.

In Nigeria, Instagram's impact is especially strong among university students due to its visually engaging format, real-time interactions, and the perceived prestige of being visible online. Beyond entertainment, Instagram is used for group collaboration, sharing academic projects, and bonding among peers. Research by Ahmed (2020) indicates that the platform supports social learning and provides spaces for academic involvement in Nigeria. However, it also increases performance anxiety and a constant need for recognition. Okonkwo and Akpojotor (2024) found that Instagram use among Nigerian students fosters community building but also fosters a culture of comparison and social pressure. This is reflected in Dhiman's (2024) findings, where rising Instagram dependency among students aligns with the increasing influence of online validation on their behaviors and self-worth. Ezeonwumelu et al. (2021) document how social media addiction disrupts time management for university students in Nigeria.

Consistent Instagram engagement has led to what scholars call “Instagram usage addiction”. Using the Bergen Social Media Addiction Scale adapted for Instagram by Alimoradi et al. (2022), Instagram addiction is defined as a behavior pattern that includes: 1) constant preoccupation with Instagram, 2) using Instagram to escape negative feelings, 3) requiring more time on the platform for satisfaction, 4) feeling withdrawal when unable to use it, 5) continuing to use Instagram despite negative effects, and 6) conflict with other life activities. In this study, indicators for addiction include daily usage exceeding three hours combined with self-reported academic struggles, sleep disruption, or emotional distress when unable to access Instagram. This definition clarifies that frequent use does not equal addiction; true addiction involves significant impairment in daily functioning. Among Nigerian undergraduates, this appears as poor sleep, decreased academic focus, social withdrawal, and trouble with time management and emotional stability (Ezeonwumelu et al., 2021). Awopetu et al. (2024) also connect these patterns to fear of missing out, continuous content creation, and inability to disengage despite negative academic impacts. Additional research links Instagram overuse to emotional fatigue and lower academic performance due to increased procrastination (Pekpazar et al., 2021; Sanz-Blas et al., 2019).

A major reason for Instagram overuse among students is the widespread desire for fame and social validation. The online environment nurtures these aspirations by rewarding visibility with tangible metrics such as followers, likes, and shares. This creates a performative culture where students craft online identities to seem aspirational or socially appealing (Aligwe et al., 2017). These scholars argue that many undergraduates strategically alter their images to attract attention and admiration, highlighting a deep psychological need for validation. Adebisi and Olayiwola (2019) stress that the quest for fame and social approval heavily influences how often and what users post, especially when they seek recognition beyond their immediate circles. Quijada (2020) found that young people engage with social media for peer validation and aspirations, while Gindil and Backer (2024) documented how media exposure shapes the need for fame and social validation that affects future goals.

This pursuit of online fame creates a competitive atmosphere where people continually compare themselves to influencers and digital celebrities. Instagram’s algorithm reinforces this comparison by promoting popular content, which strengthens cycles of self-promotion and validation-seeking. Dhiman (2024) notes that such systems encourage fame-driven behaviors, increasing the chances of compulsive platform use. These behaviors reflect personal ambition and broader societal norms that associate popularity with success and significance. Ponnusamy et al. (2020) identify mental well-being as a major factor affecting Instagram usage addiction, especially when users pursue fame and acceptance. Shahzad et al. (2024) document how addiction driven by the need for validation affects various aspects of user behavior and well-being.

A critical but often overlooked result of Instagram use driven by the desire for fame and social validation is the gradual decline of users’ attention spans. The quick,

visually stimulating content on Instagram encourages short bursts of engagement, which undermines the ability to concentrate for long periods (Shahzad et al., 2024). The habit of frequently checking for likes, comments, and followers leads to fragmented attention that lasts beyond the platform (Ansel & Pandey, 2025). Onun et al. (2023) show that ongoing exposure to Instagram's validation-driven fragmented content harms cognitive endurance and retention. Specifically, Awopetu et al. (2024) document that students addicted to quick validation report mental fatigue, poor retention, and disrupted thought processes that hinder academic success. Bulut (2023) finds links between attention issues and social media use among young adults seeking approval, while Phan and Söilen (2023) observe that students perceive their attention spans deteriorate as validation-seeking behaviors rise. Kohler (2023) explains how addictive short videos focusing on fame proposals affect users' attention spans, while George et al. (2023) illustrate how validation-driven screen usage impacts attention management and focus among university students.

Despite the extensive research on social media addiction worldwide, studies focusing specifically on Instagram addiction are still limited, especially in Nigeria (Dhiman, 2024). While platforms like Facebook, Twitter, and TikTok have been thoroughly analyzed for addictive usage patterns, Instagram's unique focus on visuals and algorithm-driven engagement requires distinct research (Awopetu et al., 2024). Unlike text-based platforms, Instagram's emphasis on visual storytelling, story features, and advanced filtering options creates unique paths to addiction that general social media addiction studies may overlook (Ponnusamy et al., 2020). Additionally, Instagram's algorithm encourages consistent engagement and content creation, which could heighten fame-seeking behaviors and validation dependency in ways that differ from other platforms (Gindil & Backer, 2024).

This gap is especially significant in Nigeria, where around 76% of university students use Instagram daily (Ezeonwumelu et al., 2021), yet our understanding of the context is lacking. The implications are serious, as Nigerian universities struggle to put in place effective policies to address declining academic performance related to Instagram addiction (Pekpazar et al., 2021). Current intervention strategies do not take into account the unique cultural factors influencing Nigerian students' online behaviors, such as community-focused values and a strong awareness of social status (Aligwe et al., 2017). The economic impacts are also alarming since Instagram addiction leads to procrastination and diminished productivity among Nigeria's future workforce (Adebiyi & Olayiwola, 2019). Furthermore, Awopetu et al. (2024) highlight growing mental health issues among Nigerian students facing social media dependence, while existing studies by Ahmed (2020) and Okonkwo and Akpojotor (2024) have limited disciplinary and geographical perspectives.

Filling this research gap would have important benefits, including culturally appropriate intervention strategies that could enhance academic outcomes for many Nigerian undergraduates (George et al., 2023). By understanding these relationships,

university administrators could design evidence-based digital literacy programs aimed at addressing fame-seeking behaviors and validation dependence while tackling attention span issues noted by Shahzad et al. (2024). Ultimately, this research could help create healthier digital habits that improve cognitive skills among Nigerian youth, enhancing educational outcomes and workplace readiness in a more digital economy. Therefore, our study aims to achieve the following specific objectives:

1. To identify Instagram usage patterns among Nigerian undergraduate students.
2. To determine if there are relationships between fame aspirations, shortened attention spans, social validation, and Instagram usage addiction.
3. To assess the individual contributions of the three independent variables in this study (fame aspiration, shortened attention span, and social validation) on Instagram usage addiction.

In line with these objectives, the study poses the following research questions:

1. What are the Instagram usage patterns among the respondents?
2. Are there relationships between fame aspirations, shortened attention spans, social validation, and Instagram usage addiction?
3. What are the individual contributions made by the three independent variables on Instagram usage addiction?

Literature review

Instagram usage pattern

Instagram usage patterns among Nigerian undergraduates have changed significantly. Students now engage with the platform more often, for longer periods, and with greater intensity. Ezeonwumelu et al. (2021) report that about 76% of Nigerian university students use Instagram daily. Their usage includes not just leisure activities but also academic and professional networking. Research by Okonkwo and Akpojotor (2024) shows that Nigerian undergraduates usually spend 2 to 4 hours daily on Instagram, mainly consuming, creating, and interacting with content through comments, messages, and viewing stories. This heavy usage goes beyond basic communication needs. Adebisi and Olayiwola (2019) found that university students frequently use Instagram for self-presentation, social comparison, and gathering information. This habit can turn into dependency over time. Ahmed (2020) noted that biology undergraduates at the University of Ilorin often use Instagram for sharing educational content and seeking social validation.

Notably, these usage patterns fit within a broader trend of using multiple platforms. Nigerian undergraduates also engage with TikTok, WhatsApp, YouTube, mobile games, and utility apps, all competing for attention and potentially contributing to digital dependency overall (Fernández, 2018). Instagram's features – like its algo-

rithmic feed, Stories, and engagement metrics – interact with these other platforms, creating what Scolari (2024) calls a “media ecology”. Here, behaviors and psychological effects cannot be attributed solely to Instagram. Understanding this context is crucial for the relationships explored in this study.

The changing nature of Instagram usage is clear in how students manage their time on the platform. Aligwe et al. (2017) noted that many Nigerian undergraduates develop specific routines, checking their accounts right after waking, during class breaks, and late at night, often sacrificing sleep. Awopetu et al. (2024) reported trends that show increasing compulsive behavior, with students feeling anxious when they cannot access the platform and using complex strategies for content-posting to boost engagement. This behavior is especially evident among students aiming for fame, as they spend considerable time creating, filtering, and tracking engagement metrics (Adebiyi & Olayiwola, 2019). Dhiman (2024) finds that today’s Instagram use among university students is cyclical, where positive feedback leads to more frequent posts while low engagement prompts compensatory actions like increased scrolling and attempts to interact.

Fame aspirations and Instagram usage addiction

The desire for fame plays a significant role in Instagram addiction among undergraduates, forming a psychological pathway to compulsive use. Aligwe et al. (2017) suggest that students’ need for recognition and visibility beyond their immediate social circle drives them to continually create, optimize, and monitor content – habits that can become addictive. This link is backed by Adebiyi and Olayiwola (2019), who found that undergraduates with strong fame aspirations often check for likes, comments, and followers more frequently, leading to cycles of dependency that reinforce addiction. In Nigeria, Gindil and Backer (2024) note that platforms like Instagram allow students to envision and simulate success based on local and global standards. This desire for fame leads to what Awopetu et al. (2024) call “visibility anxiety”, where students feel pressured to maintain a regular online presence and keep creating content, regardless of the personal or academic costs involved.

Instagram’s design further amplifies this dynamic by providing real-time metrics that indicate popularity and influence. Dhiman (2024) points out that the platform’s algorithm rewards consistent engagement, which then reinforces fame-seeking actions through intermittent rewards that strengthen addictive habits. This produces what Quijada (2020) refers to as a “validation loop”, where fame aspirations spur increased posting, which leads to a growing dependence on the platform’s reward system. Dhiman (2024) also notes how media exposure influences fame-seeking behavior among young individuals, shaping cognitive patterns that prioritize visibility and recognition. In Nigerian universities, this can lead to students planning their

social media presence carefully, often neglecting their academic duties to perfect their online image (Awopetu et al., 2024). Ponnusamy et al. (2020) found that the link between fame aspirations and Instagram addiction is affected by psychological well-being, suggesting that students with lower well-being may be especially vulnerable to addiction when chasing fame on social media. Based on previous research that shows students with high fame aspirations often curate content to gain attention and boost perceived status, we hypothesize that:

H1a: There is a relationship between fame aspirations and Instagram usage addiction.

Shortened attention span and Instagram usage addiction

The link between shortened attention span and Instagram addiction creates a two-way interaction where each factor can reinforce the other. Shahzad et al. (2024) show that Instagram's fast-paced, visually appealing content encourages immediate engagement and validation. This exposure gradually trains users to develop fractured attention patterns that extend beyond their time on the platform. As students become accustomed to quick rewards from likes, comments, and new content, maintaining focus on challenging academic tasks becomes harder. Ansel and Pandey (2025) found significant drops in attention span among university students addicted to Instagram. Their study showed a reduced ability to engage with complex readings or lectures without distraction. This link is particularly troubling within academic settings. Onun et al. (2023) found that continued exposure to Instagram's fragmented content hurt cognitive stamina and information retention, which are vital for success in school. Bulut (2023) also established connections between attention issues and social media use among young adults, noting that constant context-switching from platform algorithms reshapes cognitive processing towards shallow, quick engagement rather than deep focus.

The cyclical nature of this relationship becomes clear in research by Phan and Söilen (2023), which shows that students feel their attention spans worsen as they spend more time on Instagram. This leads to more frequent, shorter visits to the platform as their ability to concentrate declines. George et al. (2023) describe this as a "cognitive erosion cycle", where declining attention capacity results in more checking of the platform as a compensatory measure, further reducing attentional resources. Among Nigerian undergraduates, Awopetu et al. (2024) found that students addicted to Instagram often report attention-related struggles, such as mental fatigue, poor retention, and disrupted thought processes, all of which can harm academic success. Kohler (2023) adds that the addictive nature of short videos on Instagram affects users' perceived attention spans, leading them to prefer immediate rewards over sustained focus. This preference for quick engagement reinforces addictive usage patterns as students increasingly turn to the platform for brief dopamine fixes when faced with

attention-demanding academic tasks, creating a cycle between attention deficits and Instagram dependency. Based on prior findings that indicate rapid, reward-driven digital environments like Instagram disrupt sustained cognitive engagement (Ansel & Pandey, 2025; Shahzad et al., 2024), the present study hypothesizes that:

H1b: There is a relationship between shortened attention span and Instagram usage addiction among Nigerian undergraduate students.

Social validation and Instagram usage addiction

The need for social validation is a strong driver of Instagram addiction among undergraduates, leading to psychological dependence on digital approval. Adebisi and Olayiwola (2019) found that the pursuit of peer validation has a significant impact on both how often and in what ways students engage with Instagram as they continually seek affirmation through likes, comments, and followers. This need for validation creates a “psychological reward loop”, as described by Dhiman (2024), where positive feedback releases dopamine and reinforces platform dependency through similar biochemical pathways found in other behavioral addictions. Research by Ponnusamy et al. (2020) indicates that social validation needs shape usage habits and emotional reactions to engagement metrics, with students reporting increased anxiety when their posts do not receive the engagement they expected. This emotional connection turns regular use into compulsive checking and content creation patterns typical of addiction. In Nigerian universities, Aligwe et al. (2017) found that many undergraduates manage their online personas to attract validation, exposing a deeper psychological need for external approval that fuels their addictive behaviors.

The cultural context intensifies this issue, as Nigeria’s collectivist society places a high value on social approval and acceptance. Okonkwo and Akpojotor (2024) discovered that among Nigerian library and information science students, Instagram promotes community building, fostering a culture of comparison and social pressure that drives compulsive use. Shahzad et al. (2024) show how addiction stemming from validation needs affects various aspects of user well-being, such as self-esteem and sleep quality, creating added psychological challenges that deepen addictive usage. This pattern aligns with findings by Avci et al. (2023), who established links between approval-seeking and Instagram addiction, highlighting how parental attitudes and early validation experiences influence susceptibility to platform dependence. Quijada (2020) elaborates on this connection, explaining how platforms like Instagram have changed validation mechanisms and offer immediate, quantifiable feedback that users increasingly rely on for their sense of self-worth. As students start connecting their value to digital metrics, they develop what Awopetu et al. (2024) term “validation dependency”, where their self-esteem depends on external approval received through the platform. This results in addictive use patterns that prioritize social validation

above other matters, including academic performance. Building on earlier studies that show validation-seeking behaviors encourage compulsive use through reward loops (Quijada et al., 2020; Ponnusamy et al., 2020), we hypothesize that:

H1c: There is a relationship between social validation needs and Instagram usage addiction among Nigerian undergraduate students.

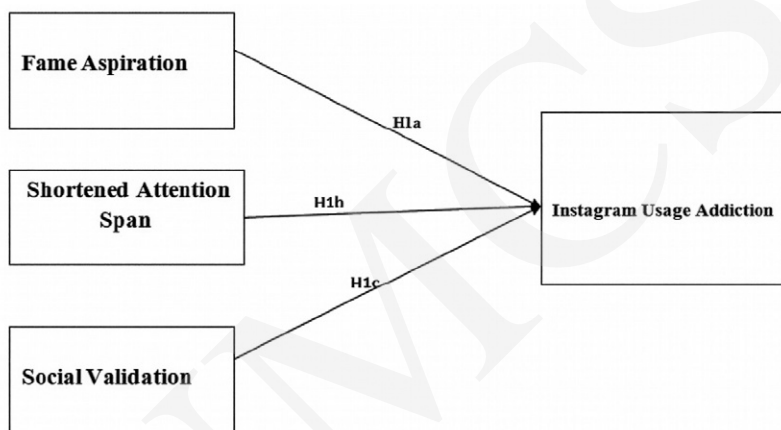


Figure 1. Conceptual framework

Source: Authors' own study.

Theoretical framework

Uses and gratifications theory (UGT)

Uses and gratifications theory (UGT) offers a strong framework for understanding how Nigerian undergraduate students actively choose and use Instagram to meet specific psychological and social needs. According to Dhiman (2024), UGT sees media users as active participants who intentionally select platforms based on the benefits they provide, such as seeking information, entertainment, social interaction, and self-expression. This viewpoint is especially relevant for studying Instagram addiction since it explains how students' desire for fame and social validation influences their engagement with the platform. Research by Shahzad et al. (2024) shows that Instagram meets various needs at once, providing immediate feedback through likes and comments (for emotional needs), helping with identity building through profile curation (for personal needs), and facilitating connections with peers (for social needs).

The theory also sheds light on why addiction can arise. Awopetu et al. (2024) found that as students gain more psychological satisfaction from these online interactions,

they start to rely on them for emotional fulfillment and validation of their self-worth. This creates psychological reward loops that encourage ongoing use.

It also helps explain the link between Instagram addiction and shortened attention spans. Applying UGT, Onun et al. (2023) show how students' preference for immediate rewards through Instagram's quick feedback system leads to fragmented attention. This happens because platforms optimize for rapid engagement, encouraging users to expect instant gratification. George et al. (2023) describe this as "digital neurological reshaping", which gradually reduces the ability to focus for long periods. Importantly, UGT highlights the relationship between seeking gratification and addiction. Phan and Söilen (2023) note that students increasingly turn to Instagram for quick dopamine releases when faced with demanding academic tasks, creating a self-reinforcing cycle. This perspective also clarifies how the desire for fame drives addiction. Gindil and Backer (2024) observe that students use Instagram as a tool for achieving visibility and recognition, which align with their personal and social identity needs. This behavior intensifies their dependence on the platform through intentional, goal-directed usage.

Mediatization theory

Mediatization theory offers another way to understand how digital platforms shape social practices and everyday experiences. This theory sees media as active forces that structure how social reality is formed and experienced, rather than as neutral channels (Matassi & Boczkowski, 2023). The concept of "deep mediatization", introduced by Hepp (2020), is especially relevant for examining Instagram addiction. He argues that society has reached a point where digital platforms are so deeply integrated into daily life that our existence increasingly occurs within these mediatized environments. This framework recognizes that Instagram's features, like feedback systems including likes, comments, and followers, contribute to what scholars call "platform logic". This refers to the principles that shape user experience and behavior.

The strength of this theory lies in showing how Instagram's features exploit the psychological vulnerabilities highlighted in this study. The platform transforms abstract desires for fame into specific, gamified goals like follower counts and engagement rates, which heightens the need for recognition beyond traditional social contexts. Instagram's endless scrolling, autoplay features, and notifications reinforce the shortened attention spans discussed in this research by training users to switch rapidly between content and expect immediate rewards. Additionally, its metric-based validation systems turn social approval into a commodity, creating loops where self-worth depends on algorithm-driven metrics. This fosters the validation dependencies identified among Nigerian undergraduates. While users might seek entertainment or connection, Instagram's design influences behavior towards maximizing platform engagement rather than promoting well-being.

However, Hepp's framework also highlights that Instagram exists within a wider platform ecosystem. Nigerian undergraduates deal with what Fernández (2018) calls "platform-based existence", where daily life unfolds across many apps – like TikTok, WhatsApp, YouTube, mobile games, and utility apps. Each platform has its own mediatisation with unique features that interact to shape overall digital behavior patterns. This ecological view helps avoid over-assigning behavioral outcomes to Instagram alone. Attention fragmentation may arise from exposure to short-form content across various platforms. Addictive behaviors could also stem from underlying psychological tendencies that appear across multiple applications. In summary, while UGT explains why students choose Instagram to meet their needs, mediatisation theory details how Instagram's platform logic frames these gratifications in ways that promote addiction, revealing the interaction between personal psychological vulnerabilities and structural factors in today's multi-platform digital world.

Materials and methods

To achieve the main goal of this study, which is to examine possible links between the desire for fame, shorter attention spans, social validation, and Instagram addiction, we used a quantitative approach with a survey design. This method was chosen because it works well for inferential studies and data quantification (Asenahabi, 2019).

The study took place in Abuja, Nigeria's capital city, focusing on undergraduate students at Baze University Abuja, a well-known private university. We selected this university because most research on social media use and addiction among Nigerian students has concentrated on public universities, limiting what we can generalize for private university students (Ndubuaku et al., 2020).

The study included about 10,000 undergraduate students from Baze University. Since sampling the entire population was not feasible, we implemented a proper sampling technique. Using Krejcie and Morgan's sample table, as cited by Chuan (2006), we determined a sample of 370 respondents. We increased the sample size by 23%, adding 85 respondents to the total to ensure reliable results. Therefore, 455 questionnaires were distributed. This increase aimed to improve significance and confidence levels, as noted by Funder and Ozer (2019). Ultimately, we collected 370 completed questionnaires, achieving a response rate of 81.32%. We employed purposive sampling as the appropriate non-probability sampling method because the participants were relevant to the research questions based on specific traits.

To measure the study variables and improve their validity, we adapted questions from previous studies. For Instagram usage patterns, we took ten questions from Limniou et al. (2022) and Kim and Kim (2019), such as "how often do they check their Instagram accounts" and "how often do they engage in Instagram activities". For fame aspiration, we measured it with ten questions adapted from Babaleye et al.

(2020) and Tang et al. (2021). This included questions like “I consider gaining fame on Instagram to be very important” and “I participate in Instagram challenges or trends solely to gain visibility and followers”.

We evaluated shortened attention span with ten questions adapted from Lin (2019) and D’Amato (2019). This section contained questions like “I often find it hard to focus on other tasks because of Instagram distractions” and “I often feel the need to refresh my Instagram feed to stay entertained”. Social validation was assessed with ten questions adapted from Lee and Eastin (2021), including statements such as “I feel pressure to present a perfect image of myself on Instagram to get approval from others” and “I feel a sense of validation when my posts get positive feedback on Instagram”. The questions for fame aspiration, shortened attention span, and social validation followed a Likert scale from *strongly disagree* (1) to *strongly agree* (5). Finally, we examined Instagram usage addiction with ten questions adapted from Ardiana and Tumanggor (2020) and Alimoradi et al. (2022). It included questions like “I spend up to 6 hours on Instagram daily” and “I feel the need to post pictures and videos on Instagram every day”. The responses used a Likert scale from *never* (1) to *always* (5).

We analyzed the collected data using the Statistical Package for the Social Sciences (SPSS). Before the analysis, we conducted a reliability test for the independent and dependent variables to ensure their consistency by checking the Cronbach’s alpha for each variable. This step confirmed that we had internal consistency in the data for fame aspiration, shortened attention span, social validation, and Instagram usage addiction. The Cronbach’s alpha values for the four variables were 0.70 and above, as suggested by Aithal and Aithal (2020). All variables were reliable, as shown in Table 1. For the validity of the survey instrument, content validity was achieved by ensuring that each variable adequately measured what it was supposed to measure. Since this study used SPSS software and not Structural Equation Modeling (SEM) for its analysis, content validity is considered a suitable criterion for validity.

Table 1. The variables’ reliability outcomes

| Variable | No. of items | Cronbach’s alpha |
|---------------------------|--------------|------------------|
| Fame aspiration | 10 | .887 |
| Shortened attention Span | 10 | .841 |
| Social validation | 10 | .832 |
| Instagram Usage Addiction | 10 | .862 |

Source: Authors’ own study.

We also checked the normality of the collected data through Kurtosis and Skewness values. Several methods can assess data normality, including graphs, scatter plots, histograms, Kurtosis, and Skewness. Data is considered normally distributed if any of these criteria are met (Bono et al., 2019). Moreover, Hair (2014) states that a Skewness

value between -1 and +1 indicates a good distribution, and data is normally distributed if the Kurtosis value is between -3 and +3. The data collected for each variable meets these criteria, as shown in Table 2.

Table 2. Normality test outcomes (Skewness and Kurtosis)

| Variable | Skewness | Kurtosis |
|--------------------------|----------|----------|
| Fame aspiration | .752 | 1.411 |
| Shortened attention span | .661 | 1.279 |
| Social validation | .536 | 1.038 |

Source: Authors' own study.

Findings and Discussion

This section covers the profile of the respondents along with the study's goals and results. The findings are outlined based on each research objective to give clear insights into Instagram usage and the individual outcomes of the study's hypotheses.

Table 3 presents the descriptive statistics of the respondents' characteristics. The data shows that 71.6% of the respondents are female, reflecting Awopetu et al.'s (2024) observation of higher female participation in social media studies among Nigerian university students. In terms of age, most respondents (70.5%) are between 18 and 24 years old, which aligns with the typical undergraduate group that Dhiman (2024) noted as being most prone to Instagram dependency. This age distribution supports Ezeonwumelu et al.'s (2021) findings that younger university students engage with social media more often.

Regarding marital status, Table 3 shows that a large majority of respondents are single (86.5%). This reflects common trends in undergraduate demographics and aligns with Adebisi and Olayiwola's (2019) description of a life stage focused on peer validation and seeking social approval. For academic levels, 500-level students make up the largest group (37.0%), followed by 300-level students (19.2%). This suggests that senior students at Baze University remain actively engaged on Instagram despite their increasing academic responsibilities. This distribution offers a solid representation of undergraduate experiences and supports the study's goal of exploring Instagram usage addiction across different stages of academic development.

Table 3. Demographic profile of respondents ($n = 370$)

| Demographic factors | Frequency | Percentage |
|---------------------|-----------|------------|
| Gender | | |
| Male | 105 | 28.4 |
| Female | 265 | 71.6 |
| Age | | |
| 18–24 | 261 | 70.5 |
| 25–34 | 93 | 25.1 |
| 35–44 | 16 | 4.3 |
| Marital status | | |
| Single | 320 | 86.5 |
| Married | 50 | 13.5 |
| Level of study | | |
| 100 level | 51 | 13.8 |
| 200 level | 50 | 13.5 |
| 300 level | 71 | 19.2 |
| 400 level | 61 | 16.5 |
| 500 level | 137 | 37.0 |

Source: Authors' own study.

Regarding the individual findings of the study, Table 4 lists the first objective findings on the respondents' Instagram usage patterns. It shows that 48.6% of the respondents check their Instagram accounts frequently or very frequently. Meanwhile, 34.1% reported using the app more during nighttime hours. This matches Ezeonwumelu et al. (2021), who found that about 76% of Nigerian university students use Instagram daily. This indicates ongoing engagement that continues after daylight hours.

The preference for entertainment content, at 72.2%, compared to educational content, at 12.4%, supports Adebisi and Olayiwola's (2019) observations. They noted that Nigerian undergraduates mainly use Instagram for fun rather than for academic purposes. Additionally, 52.4% of respondents preferred watching video content, which aligns with Kohler's (2023) findings on the addictive nature of short videos among university students. The frequent posting behavior seen, with 52.4% posting often or very often, reflects what Aligwe et al. (2017) described as strategic content creation aimed at increasing engagement and social validation among Nigerian undergraduates.

Table 4. Instagram usage pattern outcomes ($n = 370$)

| Question | Frequency | Percentage |
|---|-----------|------------|
| How often do you check your Instagram account? | | |
| Rarely | 45 | 12.2 |
| Occasionally | 70 | 18.9 |
| Moderately | 75 | 20.3 |
| Frequently | 97 | 26.2 |
| Very frequently | 83 | 22.4 |
| How often do you engage in Instagram activities? | | |
| Rarely | 100 | 27.0 |
| Occasionally | 81 | 21.9 |
| Moderately | 64 | 17.3 |
| Frequently | 63 | 17.0 |
| Very frequently | 62 | 16.8 |
| At what time of day do you typically spend the most time on Instagram? | | |
| Morning | 86 | 23.2 |
| Afternoon | 65 | 17.6 |
| Evening | 93 | 25.1 |
| Night | 126 | 34.1 |
| What type of content do you engage with most on Instagram? | | |
| Entertainment | 267 | 72.2 |
| Educational | 46 | 12.4 |
| Current affairs | 35 | 9.5 |
| News | 22 | 5.9 |
| What form of content do you prefer consuming on Instagram? | | |
| Images | 92 | 24.9 |
| Videos | 194 | 52.4 |
| Text posts | 39 | 10.5 |
| Live streams | 32 | 8.6 |
| Other | 13 | 3.5 |
| How likely are you to engage with sponsored content or advertisements on Instagram? | | |
| Not likely | 139 | 37.6 |
| Slightly likely | 138 | 37.3 |
| Very likely | 58 | 15.7 |
| Extremely likely | 35 | 9.5 |
| How often do you follow or subscribe to influencers or celebrities on Instagram? | | |
| Rarely | 73 | 19.7 |
| Occasionally | 64 | 17.3 |
| Moderately | 74 | 20.0 |
| Frequently | 85 | 23.0 |
| Very frequently | 74 | 20.0 |
| How often do you post content on your Instagram? | | |
| Rarely | 60 | 16.2 |
| Occasionally | 58 | 15.7 |
| Moderately | 58 | 15.7 |
| Frequently | 124 | 33.5 |
| Very frequently | 70 | 18.9 |
| How often do you interact with news and current affairs on Instagram? | | |

| Question | Frequency | Percentage |
|---|-----------|------------|
| Rarely | 141 | 38.1 |
| Occasionally | 97 | 26.2 |
| Moderately | 63 | 17.0 |
| Frequently | 40 | 10.8 |
| Very frequently | 29 | 7.8 |
| How valuable do you consider the news information you see on Instagram? | | |
| Not valuable | 110 | 29.7 |
| Slightly valuable | 141 | 38.1 |
| Very valuable | 88 | 23.8 |
| Extremely valuable | 31 | 8.4 |

Source: Authors' own study.

The second objective aimed to determine whether there are connections among fame aspiration, shortened attention span, social validation, and addiction to Instagram. The Pearson Product-Moment Correlation (PPMC) analysis was conducted using SPSS, as shown in Table 5. The table displayed strong positive correlations between the three independent variables and Instagram usage addiction.

The individual hypothesis of the study, H1a, examined the relationship between fame aspiration and Instagram usage addiction. Table 5 indicated that the H1a outcome was ($r = .825, p < .01$), which means it was supported. This finding shows a significant and positive relationship between fame aspiration and Instagram usage addiction. It suggests that undergraduates at Nigerian Baze University with a stronger desire for recognition and visibility tend to have higher levels of Instagram dependency. This implies that the drive for digital fame increases engagement with the platform beyond healthy limits. The strong correlation between fame aspiration and Instagram addiction supports Dhiman's (2024) research, which found that visibility anxiety and fame-seeking behaviors are key factors driving addictive use among university students. This finding also aligns with Awopetu et al.'s (2024) documentation of "visibility anxiety" in Nigerian students, where the need for recognition leads to constant engagement with the platform, even at the expense of academics.

Regarding H1b, which explored the relationship between shortened attention span and Instagram usage addiction, the results in Table 5 indicated that H1b was ($r = .739, p < .01$), thus supported. This shows a significant and positive relationship between shortened attention span and Instagram usage addiction among undergraduates at Nigerian Baze University. This finding reveals a troubling pattern where students with lower attention capacities score higher on measures of Instagram addiction. While the cross-sectional design limits claims of causation, the relationship likely works both ways: attention deficits may increase vulnerability to Instagram, while excessive use could further decrease focus. However, it is crucial to recognize that other factors, such as stress levels, use of other short-form video platforms like TikTok or YouTube Shorts, academic workload, and underlying psychological issues, may affect both

variables. Thus, the observed correlation does not prove that Instagram alone causes a reduction in attention span.

Regarding H1c, which assessed the connection between social validation needs and Instagram usage addiction, the results showed that H1c was ($r = .730, p < .01$), meaning it was supported. This indicates a significant and positive relationship between social validation needs and Instagram usage addiction among undergraduates at Nigerian Baze University. This outcome shows that students with a stronger need for external approval and peer recognition are more likely to develop an addiction to Instagram. The platform’s algorithm rewards users with likes, comments, and follower counts, which becomes a key source of self-worth validation and encourages compulsive usage. This correlation with social validation is consistent with Ponnusamy et al.’s (2020) research, which highlights how psychological reward loops from digital approval create dependencies on external validation through engagement with the platform.

Table 5. Relationships between Fame aspiration, Shortened attention span, Social validation, and Instagram usage addiction

| Independent variable | Dependent variable | |
|--------------------------|--------------------|-----------------|
| | <i>r</i> | <i>p</i> -value |
| Fame aspiration | .825** | .000 |
| Shortened attention span | .739** | .000 |
| Social validation | .730 | .000 |

** correlation is significant at the 0.01 level (2-tailed).

Source: Authors’ own study.

To reach the final goal regarding the individual independent variables’ effect on Instagram usage addiction, multiple regression analysis was performed using SPSS, as shown in Table 6. The table shows that fame aspiration had the largest impact on Instagram usage addiction, followed by shortened attention span and social validation. Fame aspiration stood out as the strongest predictor with a standardized beta coefficient of .606. This indicates a 60.6% contribution to the variance in Instagram addiction. This finding supports Awopetu et al.’s (2024) discussion of “visibility anxiety” among Nigerian students. The constant need for recognition drives ongoing engagement with the platform, even at the expense of their studies. The shortened attention span accounted for 30.7% ($\beta = .307$) of Instagram usage addiction. This supports George et al.’s (2023) research, which describes how reduced attention capacity leads to more frequent platform checks as a compensatory action. Social validation contributed 28.7% ($\beta = .287$), which aligns with Avci et al.’s (2023) findings that connect approval-seeking behaviors to Instagram dependency patterns. The strong impact of fame aspiration indicates that undergraduates at Baze University are primarily driven by their desire for recognition and aspirational behaviors on Instagram. This

mirrors Gindil and Backer's (2024) observations of platforms functioning as tools for simulating success according to global achievement standards.

Table 6. The three independent variable contributions to outcomes on Instagram addiction

| Model | Unstandardized coefficients (B) | Std error | Standardized coefficients (β) | t | Sig |
|--------------------------|---------------------------------|-----------|---------------------------------------|--------|------|
| 1(Constant) | .891 | .158 | - | 5.501 | .006 |
| Fame aspiration | .645 | .041 | .606 | 15.610 | .000 |
| Shortened attention span | .371 | .047 | .307 | 7.916 | .000 |
| Social validation | .392 | .052 | .287 | 7.783 | .000 |

Significant at 0.01

Source: Authors' own study.

The three independent variables explained 72.8% of the variance in Instagram usage addiction, as shown in Table 7. This shows that they have strong predictive power. The combination of these variables creates an effective model for examining Instagram usage addiction from the views of Nigerian undergraduate students. The significant explained variance suggests that fame aspiration, shortened attention span, and social validation together help us understand Instagram addiction among these students. The high *R*-squared value shows that the model effectively accounts for Instagram usage addiction from the perspectives of Baze University undergraduates. It also builds on the Uses and Gratifications Theory, which explains how students choose and engage with Instagram to meet specific psychological and social needs.

Table 7. Model summary

| R | R-square | Adjusted R-square | Std. error of the estimate | Sig F change |
|-------------------|----------|-------------------|----------------------------|--------------|
| .853 ^a | .728 | .728 | 5.95707 | .000 |

Source: Authors' own study.

Conclusion

The main goals of the study were to examine the relationships between fame aspiration, shorter attention spans, social validation, and addiction to Instagram among undergraduate students at Baze University in Nigeria. It also looked at how these individual factors contributed to Instagram usage addiction. The results showed strong positive connections between all these factors and Instagram addiction. Fame aspiration had the strongest link and was the biggest contributor to this addiction, followed by shorter attention spans and social validation. Additionally, these three factors together explained a large amount of variance in Instagram usage addiction. This suggests that this combination of factors is a useful model for understanding

Instagram addiction from the perspective of Baze University students, and future researchers could validate it in other similar Nigerian universities since this finding came from just one school.

The results have important practical and theoretical implications, especially for Baze University in Nigeria, where the study took place. This could influence their social media research. Practically, the university can create digital literacy programs that cover not only Instagram-related behaviors but also the dynamics of using multiple platforms. Programs should address the issue of fame-seeking behaviors and the need for validation across social media platforms. They should also offer counseling that encourages motivation without relying on digital metrics and establish digital wellness policies that address nighttime usage habits, recognizing that addiction can affect various apps. Importantly, these strategies should acknowledge that vulnerabilities to addiction are rooted in psychological factors that go beyond specific platforms. Therefore, effective methods should tackle the underlying tendencies toward addictive behaviors instead of just limiting access to Instagram..Baze University should also redesign learning environments to better suit shorter attention spans through techniques like micro-learning and interactive content delivery.

Theoretically, the study supports the Uses and Gratifications Theory in the context of Instagram addiction. It expands on this theory by identifying aspirational gratifications as a separate category and endorses dual gratification-seeking models. These models suggest that using a platform can create cycles of dependency that alter the cognitive abilities of Baze University undergraduates in Abuja, Nigeria.

The study does have some limitations. First, its cross-sectional design limits the ability to draw causal conclusions. The correlations observed do not indicate directionality or rule out potential confounding factors such as stress, concurrent platform usage, or existing psychological tendencies. Future research should also look at addiction rates among students at other Nigerian universities across various platforms to better understand Instagram usage within the larger context of digital dependency trends. Furthermore, the study's sample comes from a single private university, which limits how well the findings can be applied to the broader Nigerian undergraduate population, especially public university students who may encounter different economic conditions. Additionally, the significant gender imbalance (71.6% female) means the findings likely reflect mostly female Instagram usage patterns rather than being applicable to male behaviors. Overall, the study looks at Instagram mainly without systematically measuring the concurrent use of other platforms, such as TikTok, YouTube, mobile games, or utility apps. This could lead to an overestimation of Instagram's effects, which may actually result from the dynamics of interacting with multiple platforms. Therefore, it is suggested that prospective scholars should consider addressing these lacunas in subsequent studies.

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