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Research Paper: The Prevalence of Nomophobia among Students and Its Association with Social Media Engagement and Demographic Factors

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Abstract

Objective: The aim of the present research was to investigate the prevalence of nomophobia among students and examine its relationship with social media engagement and demographic factors.

Methods: The methodology of the present study was descriptive and correlational in nature. The study's population included all students at Midlands State University in the academic year (2024-2025). Out of this population, 176 students were selected using a convenience sampling method. The Digital Social Network Engagement Questionnaire and the Nomophobia Questionnaire (NMP-Q) were then administered to them. Data were analyzed using descriptive statistics, Pearson's correlation and Chi-square tests. The significance level was set at $p < 0.05$. All analyses were performed using SPSS27 software.

Results: The overall prevalence of nomophobia was 98.9%. 51% of participants reported symptoms of severe nomophobia, 29% moderate symptoms, 19% mild symptoms and 1% no symptoms. There was no significant relationship between nomophobia and age or gender. However, a significant relationship was found between nomophobia and students' academic year ($p = .007$). In addition, there was a significant relationship between nomophobia and social media engagement ($p < .001$).

Conclusion: Nomophobia is a prevalent concern among Zimbabwean university student and is strongly linked to higher levels of social media engagement and academic year. The study highlights the need for interventions to promote healthier digital habits and adaptive coping strategies among students.

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1. Introduction

The integration of digital technology in modern-day society's daily life has changed the way in which people interact, consume information and function psychologically. Devices such as smartphones have become essential extensions of the self and offer continual access to social networks, entertainment and information (Sadeghi et al., 2025). Novel psychological environments where modern cognitive, social and emotional processes unfold have emerged because of this technological saturation which mainly affects young adults with higher immersion in digital platforms (Naser et al., 2023). This creates more questions than answers on how these environments shape human behaviour, traditional theoretical frameworks and diagnosis of psychological disorders. One of the major concerns is nomophobia, which is the anxiety or distress that an individual experiences when they cannot access or use their mobile phone (Srivastava et al., 2025). Nomophobia is a behavioural addiction, and several terms have been used to describe this condition. The terms include mobile phone abuse, mobile phone addiction, mobile phone problematic use and mobile phone dependence (Lopez-Fernandez et al., 2014).

Studies have consistently reported high prevalence of nomophobia in student populations. For example, the prevalence was found to be 100% among Iranian nursing students and of these, 19% reported severe symptoms (Sadeghi et al., 2025) while Cain and Malcom (2019) reported 99.5% prevalence in American pharmacy students. Similarly, university students in five Arab countries reported high mobile phone dependence and 55.6% experienced impaired control (Naser et al., 2023). Wontamo et al. (2025) discovered nomophobia prevalence rates of 78.72% and 69.76% among female and male Ethiopian students. Among Omani university students, Qutishat et al. (2020) found nomophobia prevalence rates of 99.33%. In a systematic review and meta-analysis of 28 cross-sectional studies of participants from eight countries, Tuco et al. (2023) reported 24% mild, 56% moderate and 17% severe nomophobia. These figures support nomophobia's position as "the phobia of the 21st century" (Gonçalves et al., 2020; Gurbuz et al., 2020).

Scholars have drawn parallels between bahavioural addictions and substance dependence as well as obsessive-compulsive disorders (Aggarwal et al., 2012; Fontenelle et al., 2011; Grant et al., 2010). Nomophobia has similar clinical features to anxiety disorders although it is not yet formally recognized in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Some scholars have argued for the inclusion of smartphone dependence in diagnosis (Aggarwal et al., 2012). Meanwhile, research has shown that the condition predisposes individuals to serious mental health conditions (Sharma et al., 2019; Srivastava et al., 2025). Anxiety associated with nomophobia has four dimensions: fear of inability to communicate with others, of losing connectedness, of losing access to information and of losing convenience provided by smartphones (Srivastava et al., 2025). This multifaceted nature demonstrates that the construct is complex and represents a

psychological response to disconnection. It also shows that the construct is an indicator of dependence on digital technology for the maintenance of identity, social validation and emotional regulation (Canatar & Bilge, 2023; Gul & Sheikh, 2025).

Nomophobia manifests in ways similar to anxiety attacks. Researchers note increased arousal, cognitive preoccupation, avoidance behaviours, increased heart rate, trembling, respiratory alterations, perspiration, disorientation, agitation and tachycardia during the experience of nomophobia (Bhattacharya et al., 2019). In those situations, individuals experience intense fear and may become psychologically abnormal (Bhattacharya et al., 2019). For students, nomophobia has been linked to reduced concentration, procrastination, drowsiness during lessons and, consequently, poor academic performance (Tárrega-Piquer et al., 2023). Meanwhile, nomophobic individuals turn to maladaptive coping strategies, such as smartphone use for distraction and emotional support, when they are stressed (Bragazzi et al., 2019). This creates a bi-directional cycle of stress and nomophobia.

The link between social media engagement and nomophobia constitutes an important intersection in the comprehension of this modern phobia. Since social media platforms are accessed through the internet, extensive social media engagement is related to internet addiction. Research by Peyghan (2025) reported significant levels of internet addiction among students. Social media platforms can be accessed through smartphones which are the objects of anxiety associated with nomophobia. According to Amirthalingam and Khera (2024), these platforms have design elements which create addiction-inducing reward systems. Likes, shares and comments embedded in these platforms exploit and activate the dopamine-driven feedback loop. As a result, addiction to social media and excessive usage increase smartphone dependence and separation anxiety. Zhang et al. (2026) posit that the extensive use of social media creates a state of "connected readiness" which causes individuals to become nervous when access to it is disturbed. Research shows that social media addiction has predictive effects on nomophobia behaviours (Ayaz-Alkaya & Kulakcı-Altıntas, 2025; Kara, 2021; Karademir Coskun & Kaya, 2020; Tung et al., 2025; Vagka, 2024). The triadic link between social media addiction, social anxiety and nomophobia demonstrates the complex interplay of technological, psychological and social factors in the emergence and sustenance of smartphone dependence in young adults.

Beyond social media engagement, demographic variables are also important correlate of nomophobia. The development of nomophobia is a result of behavioural, social, demographic and technological factors. These include the duration of smartphone usage, dependence on digital platforms, obsessive and compulsive behaviours, social connections, mental well-being, mindfulness, gender employment status and educational factors (Srivastava et al., 2025). Also, cultural values guiding social interaction and technology use also influence the experience and expression of

nomophobia (Nguyen et al., 2022; Sadeghi et al., 2025). Research evidence shows that nomophobia is associated with academic year (Ozdemir et al., 2018) with younger students experiencing higher levels (Alodhialah et al., 2025). However, Kaur et al. (2021) found no significant relationship between academic year and nomophobia. In terms of gender, female students experience higher levels of nomophobia as compared to male counterparts (Arpaci, 2022; Chen et al., 2025; Ferreira et al., 2025; Naser et al., 2023; Naz et al., 2025; Wontamo et al., 2025). However, gender differences are less pronounced in larger and more representative samples (Avci, 2022). Age has also been reported to play a role in how nomophobia is expressed and young people are more vulnerable (Amiri & Taghinejad, 2022; Chen et al., 2025; León-Mejía et al., 2021; Washburn et al., 2024). Furthermore, employment status and level of income influence the dependence on smartphones for social and emotional support (Naser et al., 2023; Wontamo et al., 2025). These studies highlight the significant role played by demographic factors in technology-related anxieties.

Although interest in scholarly attention to nomophobia has risen, notable gaps in literature remain. Most studies have adopted variable-centered approaches which assume homogeneity of populations thus overlooking subgroup variations in nomophobia (Bresin & Mekawi, 2022; Chen et al., 2025; Shen et al., 2024). Person-centred approaches which account for age, gender and academic level differences remain scarce. In addition, the Zimbabwean context, characterized by increased smartphone adoption, developing digital literacy and poor mental health resources, has been largely left out in nomophobia research. University administrators, mental health practitioners and policymakers cannot identify student subgroups which are most vulnerable, neither can they design appropriate interventions for nomophobia in the absence of local empirical evidence. Nomophobia has been linked to poor concentration, procrastination, drowsiness during lessons and reduced academic performance (Tárrega-Piquer et al., 2023). Hence, a limited understanding of its prevalence and correlates in Zimbabwean universities may allow a preventable source of student stress and underachievement to persist unaddressed. Therefore, considering these issues, this study seeks to answer the following question: What is the prevalence of nomophobia among Zimbabwean university students and how is it associated with social media engagement and demographic factors?

2. Methods

2.1. Research Design, Statistical Population, Sample and Sampling Method

The present study employed a descriptive correlational design. The study's population comprised all students at the Midlands State University in Zimbabwe. A convenience sample of 176 participants took part in the study after incomplete questionnaires were excluded. This sample size was considered sufficient based on Bujang's (2024) assertion that a minimum of 149 participants is sufficient for both parametric and non-parametric correlations.

2.2. Instruments

Demographic Questionnaire

This was developed by the researchers and collected data about participants' age, gender and academic year.

Digital Social Network Engagement Questionnaire

The scale was developed by Przybylski et al. (2013) to measure an individual's social media use engagement. It is a unidimensional scale containing five items rated on an 8-point Likert scale (0 = "not one day) to 7 = "every day"). On each item, participants indicate their use of social media in the past week yielding total scores that range from 0 to 35. Higher scores indicate high levels of social media engagement. Przybylski et al.'s (2013) study reported a high internal consistency for the scale as measured by Cronbach's alpha (α = .82 to .89). In the present study, it demonstrated high internal consistency (Cronbach's α = .90).

Nomophobia Questionnaire (NMP-Q)

NMP-Q is a self-report scale originally developed by Yildirim and Correia (2015) to determine an individual's nomophobia levels. It has 20 items rated on a 7-point Likert scale ranging from 1 = "strongly disagree" to 7 = "strongly agree". The total scores from individual items show the level of nomophobia an individual has. These range from 20 to 140. A score of 20 means nomophobia is absent, 21 ≤ NMP-Q score < 60 indicates mild nomophobia, 60 ≤ NMP-Q score < 100 moderate nomophobia while 100 ≤ NMP-Q score < 140 shows severe nomophobia. In the original study (Yildirim & Correia, 2015), the scale showed an excellent overall internal consistency as measured by Cronbach's alpha (α =.945). A recent systematic review (Jahrami et al., 2023) also reported the scale's excellent pooled internal consistency (Cronbach's α =.93, range = .91 to .95). In this correlational study, the scale demonstrated excellent internal consistency (Cronbach's α =.97).

2.3. Data Collection and Analysis

All the necessary permissions were obtained prior to conducting this study. Following these permissions, information about the study was communicated to students in Psychology classes who then conveyed it to their contacts. Students were also invited to take part in the study on social media platforms. Data were collected online through Google forms platform via a link shared on social media platforms. The link contained a participant information sheet which provided full details about the study including information about confidentiality, informed consent and the voluntary nature of participation. Participants provided digital informed consent before taking part in the study. They then completed a structured questionnaire consisting of demographic questionnaire, Digital Social Network Engagement Questionnaire and Nomophobia Questionnaire (NMP-Q). Collected data were analyzed using SPSS version 27. Descriptive statistics (frequencies and percentages) were used to assess the prevalence of nomophobia. Chi-square analysis tested the association of nomophobia severity with gender and academic year. On the other hand, Pearson's correlation analysis examined the relationships among age, social media engagement scores and nomophobia scores.

3. Results

Participants' sociodemographic characteristics are presented in Table 1. Of the 176 students who took part in the study, 104 were female (59.1%) and 72 were male (40.9%). As shown in Table 1, 30 (17%) students were in their first year of study, 33 (18.8%) were in second year, 36 (20.5%) were in third year while 77 (43.8%) were in their fourth year of study. Participants' ages ranged from 18 to 26 years (M = 22.09, SD = 1.776).

Table 1

Participants' Sociodemographic Characteristics (N = 176)

Variable	N	(%)
Gender		
Male	72	40.9
Female	104	59.1
Year of Study		
First Year	30	17
Second Year	33	18.8
Third Year	36	20.5
Fourth Year	77	43.8
Age (M ± SD)	22.09 ± 1.78	

Descriptive statistics for the study variables are shown in Table 2. On average, participants reported moderate levels of both social media engagement (M = 23.57, SD = 11.14) and nomophobia (M = 94.45, SD = 35.56).

Table 2

Descriptive Statistics for Study Variables (N = 176)

Variable	M	SD
Social Media Engagement	23.57	11.14
Nomophobia	94.45	35.56

The prevalence of nomophobia is shown in Table 3. As presented in the table, the overall prevalence of nomophobia was 98.9%. In terms of severity levels, 2 participants (1.1%) did not have symptoms of nomophobia, 33 (18.8%) reported mild nomophobia, 51 (29%) reported moderate nomophobia and 90 (51.1%) reported severe nomophobia.

Table 3

Prevalence of Nomophobia Severity

Severity Level	n (%)	%
Absent	2 (1.1)	1.1
Mild	33 (18.8)	18.8
Moderate	51 (29)	29
Severe	90 (51.1)	51.1

Table 4 shows the correlations among age, social media engagement and nomophobia. Age was not significantly correlated with social media engagement. and nomophobia (*p*s > .05). However, data shows that there was a significant positive relationship between social media engagement and nomophobia (r = .38, p < .001). This indicates that an increase in social media engagement was associated with a corresponding increase in nomophobia.

Table 4

Correlations Among Age, Social Media Engagement and Nomophobia

Variable	1	2	3
1. Age	-		
2. Social Media Engagement	.06	-	
3. Nomophobia	-.04	.38**	-

Note. ** p < .001

Chi-squared results showed that gender was not significantly associated with the severity of nomophobia, $\chi^2(3) = .235$, $p = .972$. However, the association between year of study and nomophobia severity was significant, $\chi^2(9) = 22.5$, $p = .007$.

4. Discussion

The current study investigated the prevalence of nomophobia and its associations with social media engagement as well as demographic factors (age, gender and year of study). This context is underrepresented in extant literature. The study found that nomophobia was highly prevalent and its overall level among students was moderate although the majority reported severe levels. Age and gender were not significantly associated with nomophobia whereas year of study and social media engagement were significantly associated with it.

The high overall prevalence (98.9%) of nomophobia found in this study is consistent with previous studies which reported at least 99% prevalence rates (Kaur et al., 2021; Qutishat et al., 2020; Tuco et al., 2023). However, 51% of participants in the current study were classified within the severe category of nomophobia which exceeds global estimates for severe symptoms (Jahrami et al., 2023; Tuco et al., 2023). This suggests that a greater proportion of Zimbabwean students may be experiencing more intense levels of nomophobia. The discrepancy could be due to contextual

factors related to the study setting. Smartphones, among Zimbabwean students, are used for social connection, important academic information, news and economic opportunities which may all create multifunctional dependency on mobile phones. This can also add towards separation anxiety and turn the device into lifeline rather than a luxury. Thus, the observed severity may be reflective of the interaction between global trends and local socio-technological infrastructure.

The positive association between social media engagement and nomophobia supports the views of contemporary digital psychology (Kara, 2021; Vagka, 2024). Consistent with our findings, previous studies have found that social media addiction is associated with high nomophobia (Karademir Coskun & Kaya, 2020). Many students primarily rely on social media platforms for affordable news consumption, social connection and academic collaboration. In addition, nomophobic individuals may compulsively use social media when they experience anxiety. They use smartphones for self-distraction and emotional support instead of addressing their anxiety (Bragazzi et al., 2019). This creates a paradox in which stress triggers maladaptive social media usage which heightens nomophobia and generates more stress (Bragazzi et al., 2019). In the current context, most students use social media as a source of interaction, study cooperation and access to information, which can enhance the habitual use. This relationship is bidirectional and mutually reinforcing. On one hand, the high frequency of use of social media can create a state of constant connected readiness, where individuals are constantly anxious when they cannot use it (Zhang et al., 2026). Conversely, some people with nomophobia might resort to compulsive use of social media as a maladaptive coping mechanism because they prefer to be distracted and regulate their emotions online instead of treating the underlying anxiety (Bragazzi et al., 2019). This forms a vicious cycle where stress encourages the use of social media more, which then leads to the perpetuation of or even heightened nomophobia. The design characteristics of social media, such as unpredictable reward schedules supporting repetitive checking behaviour and supporting psychological dependence, may also partially explain this relationship. These mechanisms can be a source of increased sensitivity to disconnection and anxiety as access is limited. In general, the combination of these interacting behavioural and technological processes can be used to explain the positive relationship between social media use and nomophobia.

Contrary to most studies which reported significant associations between gender and nomophobia severity wherein female students had higher nomophobia than their male counterparts (Arpaci, 2022; Chen et al., 2025; Ferreira et al., 2025; Naser et al., 2023; Naz et al., 2025; Wontamo et al., 2025), the current study found no significant gender association. This divergence may be explained by contextual and usage pattern convergence. Zimbabwe's cultural and technological landscapes differ from settings in previous studies. Academic requirements, social media access and mobile-based

learning platforms have universalized smartphone ownership and daily usage among Zimbabwean university students which may have attenuated gender differences in technology dependence. When smartphone use shifts from discretionary to instrumental and necessity-driven use, gender differences in patterns of use and nomophobia are likely to be diminished. This interpretation is consistent with findings that gender disparities in technology-related behaviours decrease in situations where access and use are both ubiquitous and functionally equal across groups (Avci, 2022).

The lack of significant association between age and nomophobia within our student sample may be due to the narrow age range therein. The present result does not support broader lifespan studies which noted younger age's predictive potential in increased nomophobia (Amiri & Taghinejad, 2022; Chen et al., 2025; Washburn et al., 2024). This effect, nonetheless, is muted by the limited age variance in the present student population which is somewhat homogeneous (León-Mejía et al., 2021) In the context of university students in our study, technology use is compulsory and not voluntary which could make age related differences in adoption and dependence less salient. In addition, the association our study found between academic year and nomophobia severity suggests that academic year could be a more precise environmental indicator than chronological age. Same age students of different academic years may face varying degrees of academic pressure, transition stresses and social role expectations. These environmental triggers may be accounted for more accurately by academic year than age. Our finding suggests that environmental and psychosocial factors outweigh chronological age in influencing nomophobia in a developmentally plateaued and technologically saturated university settings.

Research findings on the relationship between academic year and nomophobia are mixed. Some studies, contrary to the current study, found no relationship (Kaur et al., 2021; Qutishat et al., 2020). However, consistent with our finding, other studies reported progression of nomophobia with academic year (Ozdemir et al., 2018). Senior students usually face increased academic pressures, career anxiety and transitioning social network as peers graduate. Consequently, they may resort to smartphones to cope with stress, maintain eroding social ties and seek job-related information. This may deepen their dependence on smartphones thereby intensifying nomophobia (Tung et al., 2025). This position contradicts Alodhialah et al. (2025) who noted low nomophobia in higher academic years than lower ones. This highlights the varying influence of academic culture, support systems and demands of different degree programs on this relationship.

5. Conclusion

The study shows that nomophobia is highly prevalent among university students with many experiencing moderate to severe levels. The study also demonstrates that gender and age are not significantly associated with nomophobia while academic year and social

media engagement are significantly associated with it. The significant association between social media engagement and nomophobia demonstrates the importance of connectivity and fear of disconnection within students' digital lives. Our findings show that psychoeducational and institutional interventions to facilitate healthy digital interaction and adaptive coping mechanisms among students are needed.

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Conflict of interest

Authors declare that there is no conflict of interest.

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