

Phone in Hand, Mind Elsewhere: Phubbing, Academic Engagement and Social Connectedness among Nigerian Undergraduates

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Abstract

Nowadays smartphones have become central to the social life of university students. Despite this, their roles in academic interfacing and social connection have not always been clear cut. The current study examined the predominance of phubbing, which is defined as the use of smartphone for one-on-one interaction, and its nexus with academic activities and social connectedness among three-hundred and eighty-one (381) undergraduate students at Federal University of Kashere, Nigeria. A correlational survey design was used, while participants were selected using stratified random sampling technique. For data collection, validated measures of phubbing, academic engagement and social connectedness were used. Descriptive statistics and simple linear regression were used for data analysis. Findings showed that phubbing was moderately prevalent among undergraduate students. Additionally, phubbing significantly predicted lower strata of academic engagement and social connectedness, revealing the inverse association between engagement in phubbing and involvement in academic activities and weaker interpersonal connections in the university environment. The findings expand the growing body of evidence on the negative effects of phubbing in a Nigerian higher education context and bear implications for digital literacy police and student-support services.

Keywords: academic commitment, Nigerian undergraduates, phubbing, smartphone behavior, social bond



Introduction

Stepping into any lecture hall in a Nigerian University today one comes across a familiar sight: a lecturer standing by the lectern facing the students in their seats, and somewhere in the middle, beyond the front seats, the soft light of phone screens held barely below the desk level. This is not an isolated sight, but a reflection of a wider global shift in how people engage with modern technology. Three years ago, that is in the year 2023, it was estimated that as many as 5.4 billion people, approximately two-thirds of world's population, were connected to the internet, and nearly 4.76 billion people were active on social media (Data Reportal, 2023; International Telecommunication Union, 2023). Although these figures point to the general population rather than students specifically, institutes of higher education in general, and university campus particularly are not Impervious to this reality. Students carry along these habits, patterns and dependencies to campuses, lecture halls, libraries, group interactions. In the case of universities, whose essential work depends on concerted cognitive effort and one-on-one exchange, the adjustment carries fundamental consequences.

Institutions of higher education in Nigeria gives an especially instructive case. It is found that 98 percent of Nigerian university students used their phones to communicate with family and friends, and 75 percent of them have access to social media (Nwachukwu & Onyenakeya, 2017). This development brings about a legitimate concern: smart phones are physically present in Nigerian university classrooms and other learning spaces, but their usage appears largely devoid of bond with academic engagement. Only 24 percent identified academic use as their primary reason for phone ownership. The phones, then, are very much present. The question worth asking is what they are doing to the students who carry them, particularly when those students are supposed to be engaged with their studies or with one another.

One answer comes from the growing literature on phubbing; a portmanteau of phone and snubbing. Phubbing refers to the act of attending to a smartphone during a face-to-face interaction with another person (Yam *et al.*, 2025). Nazir (2017) described it as a modern form of social snubbing, in which attention is redirected from the person in one's front to the screen in one's hand. Studies have shown that phubbing is linked to diminished relational quality, reduced psychological wellbeing, and poorer academic outcomes (Kobicheva *et al.*, 2025; Pesch *et al.*, 2024; Tufan *et al.*, 2025). These pattern is explained by two theoretical foundation: Social Presence Theory and Cognitive Load Theory. Social Presence Theory maintains that meaningful interaction is dependent upon mutual attentiveness; when someone phubs, however, they withdraw from the shared interactive domain, revealing disengagement regardless of intent (Short *et al.*, 1976). Cognitive Load Theory (Sweller, 1988) gives a complementary detail by highlighting that dividing attention between a phone and an academic task places extra load on working memory, leaving fewer rooms for actual learning.

Academic engagement, viewed as the emotional, behavioral and cognitive investment students allot to their studies, is one of the strongest predictors of achievement and persistence. It was found by Kobicheva *et al.* (2025), in a study of over 500 undergraduates, that higher phubbing was associated with lower scores on three engagement dimensions, including being active in class, enthusiasm for academic activities, and use of deep processing strategies. Additionally, the authors found that phubbing mediated the link between engagement and academic grades. In another case, Thornton *et al.* (2014) revealed that a smartphone resting on a desk, even one that is not being used, exponentially reduces availability of cognitive capacity. What this implies is that the problem may begin before any active phubbing occurs.

Social connectedness, which is seen as the subjective sense of belonging and relational connectivity within one's social network, is of great importance to students' emotional and mental well-being. It is

demonstrated that being phubbed consistently produces feelings of exclusion and erodes interpersonal trust (Pesch et al, 2024). Tufan *et al.* (2025) found that phubbing among university students was related to weaker social cooperation and lower life satisfaction. Similar patterns were reported among adolescents by Ang *et al.* (2019), with phone-related distraction linked to reduced belonging both at home and in school. Bajwa *et al.* (2023) explained the issue in relational terms, stating that: phubbing is, at its core, a communicative choice to prioritize the absent over the present.

In spite of this overwhelming evidence, most phubbing researches have been conducted in Europe, North America and Eastern Asian. African higher education contexts remain largely missing from the literature, and this matters. Nigerian classrooms and educational settings carry cultural emphases on communal learning, peer relation and complementary attention that may shape how phubbing is experienced and what it costs. Empirical evidence from Nigerian university contexts is therefore not simply a chasm to fill for completeness; it is a necessary condition for any policy response that gives local context the seriousness it deserves. Earlier studies are mainly cross-sectional and self-reported, allowing limited room for what can be said about direction and magnitude of effects (Tufan *et al.*, 2025).

This study, therefore, addresses the limitations by investigating the prevalence and demographic pattern of phubbing at the Federal University of Kashere (FUKashere), Gombe State-Nigeria, and by examine its associations with and predictive effects on academic engagement and social connections. Judging from the literature reviewed so far, this is among the first studies to simultaneously investigate both outcomes in a Nigerian public university, contributing context-specific evidence to a literature dominated by data from the Global North. Five objectives guided the study, which are: (1) to determine the prevalence and patterns of phubbing behavior among undergraduate students at FUKashere; (2) to examine the relationship between phubbing and academic engagement;

(3) to examine the relationship between phubbing and social connectedness; (4) to assess the extent to which phubbing predicts academic engagement; and (5) to assess the extent to which phubbing predicts social connectedness.

Research Hypotheses

The following null hypotheses were formulated for this research and tested at the .05 level of significance:

Ho1: Phubbing is not a significant predictor of academic engagement among undergraduate students of FUKashere.

Ho2: Phubbing is not a significantly predictor of social connectedness among undergraduate students of FUKashere.

Methodology

Research Design

The study used a predictive correlational survey design. This design was deemed appropriate because the research is aimed at examining the predictive influence of phubbing on academic engagement and social connectedness among undergraduate students without manipulating any of the research variables. The survey method allow for systematic collection of data from a large number of participants using standardized instruments; a feature that makes it more suitable for studying behavioral and psychosocial variables within an educational setting (Creswell, 2014; Cohen *et al.*, 2018).

Population of the Study

The study targeted all undergraduate students of FUKashere as its population. Information obtained from the university's academic registry

revealed that there are approximately 8000 students during the period of the study (2023/2024 academic session) distributed across six faculties. The appropriateness of this population was based on facts that smartphone ownership and social media usage are common features of student life at the institution.

Sample and Sampling Technique

To determine the sample size adequate for this research, G*Power 3.1 software was used. This was done for a reasoned power analysis based on the following statistical assumptions: a medium effect size ($f^2 = 0.15$), an alpha level of .05, a statistical power of .80, and one predictor variable. The minimum required sample size was estimated at 55 participants. However, the data for the research was obtained from 381 undergraduate students, which substantially exceeded the minimum requirement and ensured adequate statistical power for the analyses.

A stratified random sampling technique was used. The stratification was done according to faculties first and participants were then randomly selected from each stratum. This was done to ensure proportional representation across academic units and to give every member of each unit equal chance of being selected. Considering possible non-response, 400 questionnaires were distributed, of which 381 representing 95.3 percent were returned fully filled. This approach according to Cohen *et al.* (2018) ensures proportional representation of the population and prevent sampling bias. The distribution of the respondents based on faculty is given in Table 1.

Table 1: *Sample Distribution by Faculty*

Faculty	Total Students	Proportion (%)	Sample
Agriculture & Agricultural Technology	1,400	17.5	67
Education	1,600	20.0	76
Science	1,200	15.0	57
Arts & Social Sciences	1,200	15.0	57
Management Sciences	1,200	15.0	57
Technology & Engineering	1,400	17.5	67

Instrumentation

A structured questionnaire with four sections was used to collect data for this study. Section A gathered demographic information of the participants, while sections B, C and D contained items measuring phubbing, academic engagement, and social connectedness, respectively.

The three later sections were instruments adapted to ensure suitability for the Nigerian undergraduate context. Three experts in educational psychology reviewed all the items for cultural appropriateness, clarity and contextual relevance. Notably, terms and phrases that carried ambiguous connotations in the Nigerian higher education setting were rephrased, and examples within items were reframed to reflect familiar academic scenarios, without altering the essential constructs being measured. Response structure of the three instruments were standardized into a common five-point Likert scale

ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) to ensure smoothness and uniformity in administration. Pilot test was further conducted with 30 undergraduate students from Gombe State University prior to main data collection to confirm clarity and internal consistency.

Phubbing Scale

To assess phubbing in this study, Generic Scale of Phubbing (GSP) was used. GSP was developed by Chotpitayasunondh and Douglas (2018) to measure smartphone usage amid conversation, distraction by notifications, as well as prioritising phone usage over physical discussion with the person present. Earlier studies that used GSP reported reliability coefficients ranging .78 to .88 as measured using Cronbach's Alpha (Chotpitayasunondh & Douglas, 2018; Yam *et al.*, 2025). Similarly, a pilot test conducted in this study revealed an alpha value of .83 which depicts good internal reliability.

Academic Engagement Scale

Student version of Work Engagement Scale (UWEIS) was used to measure the three dimensions of Academic engagement namely: vigor, dedication and absorption. Being originally designed in English, no back translation was carried out before its usage in this study. Alterations were made only on the wording to add clarity while maintaining the underlining construct and the original response arrangement. These adaptations were reviewed and endorsed by the three experts in educational psychology prior to administration. The instrument demonstrated an acceptable level of internal consistency as reported by Schaufeli *et al.* (2002) with .72 to .89 alpha values across the three subscales. In the same vein, pilot test by this study revealed an alpha value of .80; an evident of good internal reliability.

Social Connectedness Scale

The revised version of Social Connectedness Scale (SCS-R) was used to determine social linkage and sense of belonging as perceived by the individuals. Developed by Lee *et al.* (2001), the instrument has 20 items and has been broadly used in studies involving students in early adulthood stage of life. The developers reported alpha values between .91 to .96 for the original instrument. A pilot test by this study supported this as .89 alpha value was found.

Construct Validity: Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was ran on the main study data (N=381) using Jamovi Statical Software to determine the construct validity of the measures in Nigerian university environment. The main study data was chosen over the pilot data to satisfy CFA requirement for parameter estimate for larger samples (Kline, 2016). Table 2 presents the result of the CFA

Table 2: Summary of CFA Fit Indices for Study Instruments (N = 381)

Scale (Model)	χ^2 (df)	p	CFI	TLI	RMSEA	90% CI	SRMR
GSP (One-Factor Model)	66.8 (90)	.968	1.00 0	1.120	.000	.000, .000	.033
UWES-S (Three-Factor Model: Vigour, Dedication, Absorption)	154 (116)	.011	.852	.826	.029	.015, .041	.048
SCS-R (One-Factor Model)	175 (170)	.38 8	.967	.963	.008	.000, .025	.043

Note. GSP = Generic Scale of Phubbing; UWES-S = Utrecht Work Engagement Scale Student Version; SCS-R = Social Connectedness Scale Revised. CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.

For the GSP, the one-factor model demonstrated excellent fit: chi-square (90) = 66.8, $p = .968$, CFI = 1.00, TLI = 1.12, RMSEA = .000 [90% CI: .000, .000], SRMR = .033. This means that all the items of the instrument contributed significantly ($p < .01$) in measuring phubbing at varying strength (.191 to .465), supporting that the items measure one main construct (phubbing) and also indicating a good construct validity.

The CFA of UWES-S was ran based on its three dimensions (vigour, dedication and absorption) in line with the theoretical arrangement of the scale. The model demonstrated mixed but generally acceptable fit, $\chi^2(116) = 154$, $p = .011$, CFI = .852, TLI = .826, RMSEA = .029 (90% CI [.015, .041]), and SRMR = .048. Items that measure two of the dimensions namely: dedication and absorption showed significant contribution to the

construct (academic engagement) while items in the vigour dimension exhibited weak contribution implying that this component of academic engagement perhaps function distinctively among students in Nigerian universities. Overall, the findings provide partial support for the construct validity of the adapted UWES-S and are consistent with the multidimensional nature of academic engagement proposed by Schaufeli *et al.* (2002).

For the SCS-R, negatively-worded items were reverse scored prior to analysis in accordance with the scale's scoring guidelines. The one-factor model demonstrated excellent fit: chi-square (170) = 175, $p = .388$, CFI = .967, TLI = .963, RMSEA = .008 [90% CI: .000, .025], SRMR = .043. Fifteen of the 20 items loaded significantly on the social connectedness factor (standardized estimates: .148 to .395), confirming the construct validity of the SCS-R in this Nigerian undergraduate sample.

Validity and Reliability of Instruments

All three instruments used in this study, the Generic Scale of Phubbing (GSP), the Utrecht Work Engagement Scale Student Version (UWES-S), and the Social Connectedness Scale Revised (SCS-R), were originally developed and validated in English. Since the medium of instruction at the Federal University of Kashere is English and all participants were English-speaking undergraduate students, the instruments were administered in their original English form. No translation into any local language was carried out and back-translation was therefore not applicable.

Content validation of the three instruments was carried out through expert validation. Three experts educational psychologists and measurement scrutinized the items to ensure clarity, applicability and consistency with the objectives of the study. Suggestions from these specialists guided the draft of the final instruments. Similarly, face

validation was ascertained through five undergraduate students who confirmed the clarity of the items.

A pilot study involving 30 undergraduate students from Gombe State University (an institution similar to the area of the study) was conducted to establish the reliability of the three research instruments. Internal consistency was ascertained using Cronbach Alpha as indicated in the Table 3:

Table 3 *Reliability Coefficients of Instruments*

Instrument	No. of Items	Cronbach's Alpha
Generic Scale of Phubbing (GSP)	15	.83
Utrecht Work Engagement Scale Student Version (UWES-S)	17	.81
Social Connectedness Scale Revised (SCS-R)	20	.89

Note: Alpha value $>.70$ is acceptable (Nunnally, 1978)

In addition to Cronbach Alpha which gives the basic evidence of internal consistency, Confirmatory Factor Analysis was ran using the main study data as reported and discussed in Table 2 above.

Procedure for Data Collection

Data collection was carried out during the second semester of the 2023/2024 academic session. An introductory letter authorizing the study was obtained from the Department of Educational Foundations, Gombe State University, and written permission to conduct the study was

subsequently granted by the Office of the Dean of Student Affairs, Federal University Kashere. Participants were informed on the purpose of the study, confidentiality and their anonymity was also ensured. Consent was obtained from the participants and they were duly informed that participation was entirely voluntary before the questionnaire was administered.

Trained research assistants were involved in the administration of the instruments. The assistants received prior orientation and training on the study objectives, ethical requirements, and standardized administration procedures before the data collection commenced. Similarly, instructions on neutrality, influencing participants' responses, and mode of clarification to the respondents were emphasized to the assistants. Lecture halls and study areas were visited to capture students from different faculties of the University for the Administration. Immediate retrieval of the completed questionnaires was ensured to minimize attrition and preserve data integrity.

Method of Data Analysis

Descriptive statistics was used to analyze the objective on prevalence of phubbing (Objective 1) which include frequency counts, percentages, mean and standard deviation. The remaining objectives were analyzed using simple linear regression.

Before the simple linear regression, normality, linearity and homoscedasticity assumptions were determined. To assess the normality, kolmogorov-Smirnov and Sharpino-Wilk tests were conducted in addition to inspection of skewness and Kurtosis statistics. Similarly, homoscedasticity and linearity were inspected through visual inspection of scatterplots. Coefficient of determination (R^2) was additionally reported denoting the portion of the variance in academic engagement and social connectedness that was explained by phubbing.

Ethical Considerations

Ethical principles governing researches involving human participants were complied with. Department of Educational Foundations, Gombe State University certify the study and approval was granted by the Office of the Dean of Student Affairs, Federal University Kashere for the conduct of the study. Participants were duly informed and consent was obtained from every participant. Finally, anonymity and confidentiality of the participants were guaranteed.

Results

The results are arranged in line with the study objectives and hypothesis. Findings on the prevalence and pattern of phubbing (objective 1) are reported first and those from the linear regression analysis followed. Outcome of the tests for normality assumption are reported before the inferential tests.

Test for Normality Assumptions

Kolmogorov-Smirnov and Shapiro-Wilk test as well skewness and Kurtosis inspection were conducted to determine the normality of the data obtained from the three study instruments. The results are presented in Table 3.

Table 3: Tests of Normality for Study Variables (N = 381)

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Phubbing Mean	.059	381	.003	.991	381	.020
Academic Engagement Mean	.065	381	.001	.993	381	.064
Social Connectedness Mean	.058	381	.003	.994	381	.143

Note. K-S test used Lilliefors Significance Correction. Df = degrees of freedom.

It can be deduced from Table 3 that all the three study variables showed significant values from the Kolmogorov-Smirnov test. Considering the large sample size of the study (N=381), this is expected because normality tests tend to signal insignificant small deviation as significant when sample size is large, as noted by Field (2018). The skewness and kurtosis also revealed that all the variables are within the acceptable range of plus or minus 1.0, well inside the plus or minus 2.0 threshold recommended by George and Mallery (2010). The Shapiro-Wilk test also revealed insignificant values for measure of academic engagement ($p = .064$) and social connectedness ($p = .143$). Overall, the data shows sufficient evidence for normality, justifying the use simple linear regression.

Objective One: Prevalence and Patterns of Phubbing Behavior

To address the objective on prevalence of phubbing and its demographic pattern among undergraduates at FUKashere, descriptive statistics involving frequency distributions, and item-level analyses were computed. The result is presented in Table 4.

Table 4: *Descriptive Statistics for Phubbing, Academic Engagement, and Social Connectedness (N = 381)*

Variable	N	Min	Max	M	SD	Interpretation
Phubbing Mean Score	381	1.73	3.93	2.87	0.39	Moderate
Academic Engagement Mean Score	381	2.41	3.76	3.09	0.24	Moderate
Social Connectedness Mean Score	381	2.15	3.45	2.83	0.21	Moderate

Note. M = Mean; SD = Standard Deviation. Interpretation follows the five-level benchmark: 1.00-1.80 = Very Low; 1.81-2.60 = Low; 2.61-3.40 = Moderate; 3.41-4.20 = High; 4.21-5.00 = Very High.

Table 4 depicts that the overall mean phubbing score was $M = 2.87$ ($SD = 0.39$), with individual scores spanning from 1.73 to 3.93. Using the five-level mean score interpretation criterion, a score between 2.61 and 3.40 is classified as moderate; the obtained mean therefore places undergraduates at FUKashere at a moderate level of all three variables in this study.

Table 5: *Frequency of Phubbing Levels Among Undergraduate Students (N = 381)*

Phubbing Level	Mean Range	Frequency (n)	Percent (%)	Cumulative %
Low	1.00-2.60	112	29.4	29.4
Moderate	2.61-3.40	240	63.0	92.4
High	3.41-5.00	29	7.6	100.0

Note. Categories derived by recoding Phubbing_Mean: Low = 1.00-2.60; Moderate = 2.61-3.40; High = 3.41-5.00.

Table 5 point out that the greater number of students (n = 240; 63.0 percent), fell in the moderate phubbing category followed by 29.4 percent (n = 112) classified as low, and only 7.6 percent (n = 29) classified as exhibiting high phubbing. This indicates that phubbing appears relatively uncommon; moderate with more widespread pattern.

Table 6: Item-Level Descriptive Statistics for the Generic Scale of Phubbing (N = 381)

Item	Description	M	SD
GSP01	I place my phone where I can see it when I am with others	2.87	0.99
GSP02	I check my phone even when in the middle of a conversation	3.12	1.01
GSP03	I get distracted by my phone during conversations	2.77	0.95
GSP04	I use my phone during meals with others	2.93	0.94
GSP05	My phone is on the table during social interactions	2.90	0.98
GSP06	I read messages or notifications during conversations	3.20	0.99
GSP07	I feel the urge to check my phone during conversations	2.62	0.91
GSP08	I use my phone when others are talking to me	2.99	0.95
GSP09	I look at my phone instead of the person speaking to me	2.80	0.95
GSP10	I scroll through my phone when bored in conversation	2.55	0.94
GSP11	I reply to messages while someone talks to me	3.04	0.96
GSP12	My phone is always within reach during social settings	2.90	0.91
GSP13	I check social media during face-to-face interactions	2.96	1.02
GSP14	I pick up my phone even when I know I should not	2.63	0.96
GSP15	I prefer using my phone to engaging in conversation	2.85	0.99

Note. M = Mean; SD = Standard Deviation. Item descriptions are paraphrased from the GSP (Chotpitayasunondh & Douglas, 2018).

Table 6 presents the Item-level analysis. It can be deduce from the table that reading messages or notifications during conversations (GSP06: $M = 3.20$, $SD = 0.99$) and checking the phone mid-conversation (GSP02: $M = 3.12$) were the most commonly endorsed phubbing behaviors. Scrolling through the phone when bored in conversation was least common (GSP10: $M = 2.55$), though still just below the moderate threshold. The relatively narrow range of item means, from 2.55 to 3.20, denotes a fairly consistent pattern of moderate phubbing across all dimensions of the GSP. The predominant manifestations were found to be passive notification-checking and habitual phone placement.

Table 7: Phubbing Mean Scores by Demographic Characteristics
(N = 381)

Demographic Group	N	M	SD
Gender			
Female	195	2.90	0.38
Male	186	2.84	0.39
Level of Study			
100 Level	101	2.84	0.38
200 Level	81	2.83	0.39
300 Level	96	2.88	0.36
400 Level	103	2.93	0.41
Daily Phone Use			
< 2 hours	92	2.86	0.35
2-4 hours	98	2.90	0.40
4-6 hours	94	2.84	0.40
> 6 hours	97	2.90	0.40

Note. M = Mean; SD = Standard Deviation; n=number of respondents for each demographic category.

Table 7 shows the pattern of phubbing across various demographic groups. It can be understood from the table that phubbing means were broadly similar across demographic groups. A borderline difference was found between females ($M = 2.90$) and males ($M = 2.84$). Means increased slightly with year of study, from 2.84 at 100 Level to 2.93 at 400 Level, which may reflect gradual habituation to phone use over the course of a degree, though this interpretation has limitations, therefore, it should be treated cautiously in view of the descriptive nature of the analysis. Students using phones for more than six hours daily scored marginally higher ($M = 2.90$) than those using them for fewer than two hours ($M = 2.86$). All group means fell within the moderate level, suggesting that phubbing at FUKashere is a broadly shared behavioral pattern rather than one concentrated in any particular subgroup.

Hypothesis One: Phubbing as a Predictor of Academic Engagement

Ho1: Phubbing is not a significant predictor of academic engagement among undergraduate students of the Federal University of Kashere.

Simple linear regression was conducted with phubbing as the predictor and academic engagement as the outcome variable. Results are presented in Table 8.

Table 8: *Simple Linear Regression: Phubbing Predicting Academic Engagement*

	B	SE B	Beta	t	p	R2
Model						.154
Constant	3.793	.085		44.46	< .001	
Phubbing Mean	-.244	.029	-.392	-8.30	< .001	

Note. B = unstandardized coefficient; SE B = standard error; Beta = standardized coefficient; R2 = coefficient of determination. Dependent variable: Academic Engagement Mean. $F(1, 379) = 68.80, p < .001$.

As shown in Table 8, phubbing significantly predicted academic engagement, $Beta = -.392, t(379) = -8.30, p < .001$. The model accounted for 15.4 percent of the variance in academic engagement ($R^2 = .154$), and the overall model was statistically significant, $F(1, 379) = 68.80, p < .001$. The negative unstandardized coefficient ($B = -.244$) indicates that for every one-unit increase in phubbing, academic engagement decreased by approximately 0.244 units. Since $p < .05$, H_0 is rejected. Phubbing significantly predicts academic engagement among undergraduate students of FUKashere.

Hypothesis Two: Phubbing as a Predictor of Social Connectedness

H_0 2: Phubbing does not significantly predict social connectedness among undergraduate students of the Federal University of Kashere.

A second simple linear regression was conducted with phubbing as the predictor and social connectedness as the outcome. Results are presented in Table 9.

Table 9: Simple Linear Regression: Phubbing Predicting Social Connectedness

	B	SE B	Beta	t	P	R2
Model						.129
Constant	3.406	.077		44.29	< .001	
Phubbing Mean	-.199	.027	-.359	-7.49	< .001	

Note. B = unstandardized coefficient; SE B = standard error; Beta = standardized coefficient; R2 = coefficient of determination. Dependent variable: Social Connectedness Mean. $F(1, 379) = 56.15, p < .001$.

Table 9 shows that phubbing significantly predicted social connectedness, $Beta = -.359, t(379) = -7.49, p < .001$. The model explained 12.9 percent of the variance in social connectedness ($R^2 = .129$) and was statistically significant overall, $F(1, 379) = 56.15, p < .001$. Each unit increase in phubbing corresponded to a 0.199-unit decline in social connectedness. Since $p < .05$, H_0 is rejected. Phubbing is not a significant predictor of social connectedness among undergraduate students of FUKashere.

Reliability of the Main Study Instruments

Reliability analysis was also conducted on the main study data. The GSP returned $\alpha = .729$, the UWES-S yielded $\alpha = .730$, and the SCS-R produced $\alpha = .850$. Each of the three alpha values exceeded the .70 threshold (Nunnally, 1978) giving support for the adequacy of internal consistency across the instruments in this sample.

Discussion

Findings of this study were interpreted and discussed in this section. The discussion focused on locating the findings within the existing body of knowledge on phubbing, and considers their theoretical and practical significance. The discussion was done sequentially based on the objectives.

Prevalence and Patterns of Phubbing Behavior

The findings placed undergraduates in FUKashere at a moderate level of phubbing ($M = 2.87$, $SD = 0.39$). Using the established categorization explained earlier, that is, low (1.00–2.33), moderate (2.34–3.67), and high (3.68–5.00), 63.0 percent of students were classified as having moderate phubbing, while only 7.6 percent fell within the high phubbing category. This might seem reassuring, but moderate phubbing is in aggregate, a significant phenomenon since it is shared by nearly two-third of a students. FUKashere is not overrun with compulsive phone users; rather, phone-related inattentiveness during social and academic interactions appears to be the quiet norm.

This finding supported Kobicheva *et al.* (2025), who similarly reported moderate phubbing prevalence across diverse undergraduate samples. Within Nigeria, Nwachukwu and Onyenankeya (2017) reported a similar pattern that likely underlies the moderate phubbing levels. They found that 75 percent of college students regularly accessed social media on their phones. Adding weight to this finding, the item-level data revealed that the commonly endorsed behaviors were reading notifications during conversations (GSP06: $M = 3.20$) and checking the phone mid-conversation (GSP02: $M = 3.12$), both of which reflect passive, habitual phone monitoring rather than deliberate social withdrawal. This is also in concordance with characterization reported by

Chotpitayasunondh and Douglas's (2018), that phubbing is to a large extent an automatic behavior that many students consider unproblematic.

The findings revealed phubbing was broadly distributed across the sample. Female students recorded slightly higher phubbing scores than males, while students in higher levels of study reported somewhat higher phubbing scores than those in lower levels. These differences represent variations between groups in the present sample and should not be interpreted as evidence of changes over time. These explanations are conditional, and cannot be generalized to other settings since descriptive design does not allow stronger claims. Ultimately, the moderate range characterized all demographic subgroups examined, describing phubbing as a campus-wide pattern rather than a behavior more common in any particular group of students.

Predictive Influence of Phubbing on Academic Engagement and Social Connectedness

It was confirmed from the regression analysis that phubbing significantly predicted academic engagement (Beta = $-.392$, $R^2 = .154$, $F(1, 379) = 68.80$, $p < .001$) and social connectedness (Beta = $-.359$, $R^2 = .129$, $F(1, 379) = 56.15$, $p < .001$), leading to the rejection of both H_01 and H_02 .

15.4 percent of variance in academic engagement and 12.9 percent in social connectedness was attributed to phubbing. These moderate proportions signify that the majority of variance in both constructs is attributable to factors this study did not measure, therefore, it would be a mistake to overrate them. Similarly, single-variable predictors accounted for more than 10 percent of variance in the outcome and this is generally considered meaningful in educational research (Cohen, 1988), and the consistency across both outcomes strengthens the case for taking the relationship seriously. The regression coefficients showed that for each one-unit increase in phubbing, a corresponding 0.244-unit decline in

academic engagement and a 0.199-unit decline in social connectedness was observed. Since it was found that 63 percent of students belong to the moderate phubbing category, even an average decline in phubbing frequency could translate into meaningful improvements in both engagement and social well-being across a large student body.

The stronger predictive influence of phubbing on academic engagement may be attributed to the demand for sustained attention and concentration by academic tasks, both of which are straightaway ruined by frequent smartphone interruptions. In like manner, social connectedness is also affected, but this may be supported by multiplicity of interaction sources beyond physical encounters, making its vulnerability to the effects phubbing fairly less.

From Western and East Asian contexts, these findings substantially extend earlier outcomes into a Nigerian higher education setting. The effects observed in this study shows consistency with what is found in international literatures in terms of direction and magnitude, potentially suggesting some degree of cross-cultural generalizability. Likewise, they reinforce the potential value of institutional attention to digital behavior in Nigerian university, where phubbing-related withdrawal seems to convey real consequence.

Summary of Findings

Findings of this study can simply be summarized to three. First, phubbing is moderately prevalent at FUKashere and broadly distributed across demographic groups in its most common form. Second, a significant and negative association was found between and both academic engagement and social connectedness, with moderate effect sizes in both cases. Third, phubbing is a significantly predictor of both academic engagement and social connectedness, accounting for approximately 15 percent of variance in engagement and 13 percent in

connectedness. Collectively, these findings contribute in adding Nigerian context to the global literature on phubbing and its educational consequences.

Limitation of the Study

The biggest limitation of this study lean to its cross-sectional structure which prevent causal inference. While phubbing was found to predict academic engagement and social connectedness, the direction of these relationships cannot be established with certainty. It therefore remains possible that students who are less academically engaged or socially connected may be more likely to engage in phubbing actions. Additionally, social desirability and response biases may arise from the use of self-report measures, undoubtedly impacting the precision of participants' responses. Moreover, the generalizability of the findings to university context may be affect by fact that the sample was drawn from a single institution in north-eastern Nigeria.

Conclusion

Based on the findings of this study, it is concluded that phubbing is a common practice by many students in the Federal University of Kashere and that increased engagement in phubbing is associated with lower academic engagement and weaker social connectedness. Those findings support the assumptions of Social Presence Theory and Cognitive Load Theory and contribute to the growing literature on digital behavior in African higher education. Ultimately, the study emphasizes phubbing as a crucial behavioral issue that may undermine both academic and social experiences within the university settings.

Recommendations

Based on the results obtained from this study it is recommended that: (1) students should be encouraged to develop responsible smartphone-use habits during academic and social activities; (2) lecturers should promote learning environments that encourage active participation and minimize unnecessary phone distractions; (3) university administrators should incorporate digital well-being and responsible technology use into student orientation and support programs; (4) university counsellors may also consider assessing smartphone-related behaviors when supporting students experiencing academic or social difficulties; (5) future research should employ longitudinal, experimental or multi-institutional designs to establish stronger evidence on the mechanisms and generalizability of the observed association, as well as examine potential mediating and moderating factors that may explain how phubbing influences student outcomes.

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