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Nomophobia And Its Impact on Academic Performance Among Students

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Abstract:

Nomophobia, characterized as fear or anxiety of being without a mobile phone, is a new topic worrying many students and educators, as it might influence student performance and well-being. The present study was designed to investigate the effect of nomophobia on the academic performance of students based on quantitative research method. A sample of 200 students was taken and standardized instruments were employed to evaluate the levels of nomophobia and academic performance. Descriptive statistics, correlation and regression analyses were performed to analyze the data. Results showed that most of the students had average to high level of nomophobia and the majority of students in the sample had low to average academic performance. A significant negative correlation was observed between nomophobia and academic performance ($r = -0.62$, $p < 0.01$). Regression analysis also demonstrated that nomophobia is a significant predictor of academic performance and accounted for 38% variance ($R^2 = 0.38$). The results imply that the higher the mobile phone dependency, the lesser is the concentration level, the poorer the time management and the poorer the academic performance. The study concludes that nomophobia predicts academic performance of students; hence, it is pivotal for educators to advocate responsible mobile phone usage and digital well-being for students.

Keywords: *Academic Performance, Concentration, Digital Well-Being, Mobile Phone Dependence, Nomophobia, Time Management.*

1. Introduction:

In the age of digitalization, mobile phones are the students' day-to-day companion, providing assistance in academic as well as in social activities; albeit with the mobile dependence has grown and led to having negative academic consequences in the form of nomophobia. Individuals experiencing nomophobia feel anxious and uncomfortable when they are not able to access their phones (King et al., 2013). Consistent with previous research, smartphone overuse was negatively related to performance in the context of distraction, concentration and time management (Lepp et al., 2015). In line with these findings, research indicates that smartphone addiction and related phenomena (e.g., nomophobia) greatly impede students' learning and involvement with their academic work (Samaha & Hawi, 2016). Theoretical framework The theoretical

underpinning of this study is derived from the behavioural addiction theory, which states that the overuse of technology can result into an addiction that has adverse effects on performing regular activities. Although the literature on smartphone addiction continues to grow, there a gap of research in quantitatively studying nomophobia as an indicator of academic achievement. Hence, the study is designed to examine the association/prediction between nomophobia and academic performance of students.

1.1 Significance of the Study

The study is important as it sheds light on the deleterious effects of nomophobia on students' academic performance and thus has practical implications for educators, parents and education policymakers. It highlights the need to monitor the use of mobile phones and to promote students' digital well-being. The results of this study may be used to design appropriate intervention strategies, awareness campaigns and institutional measures to enhance students' academic performance and to control dependency on technology.

1.2 Operational Definitions of the study

1.2.1 Nomophobia: Fear or panic of being out of mobile phone contact.

1.2.2 Academic Achievement: The extent to which a student meets educational goals, generally in terms of scores on assessment tests or grades.

1.2.3 Students: People who are currently attending educational institution and are the part of the sample of the research.

1.3 Objectives of the Study

I. To evaluate the extent of nomophobia in students.

II. To study the students' academic performances.

III. To investigate the association between nomophobia and academic performance.

IV. To assess the predictive value of nomophobia for academic performance.

V. To Compare academic achievement at various levels of nomophobia.

1.4 Hypotheses of the Study

H_{01}: There is no significant relationship between nomophobia and academic performance among students.

H_{11}: There is a significant relationship between nomophobia and academic performance among students.

H_{02}: Nomophobia does not significantly predict academic performance.

H_{12}: Nomophobia significantly predicts academic performance.

H_{03}: There is no significant difference in academic performance across different levels of nomophobia.

H_{13}: There is a significant difference in academic performance across different levels of nomophobia.

2. MATERIAL AND METHOD

2.1 Research Design

The current research was designed in the quantitative approach as descriptive and correlational to investigate the association and the predictive power of nomophobia against academic performance in students.

2.2 Sample and Sampling Technique

The sample for the study consisted of 200 students (N = 200). Simple random sampling technique was followed for the selection of participants from the Department of Education, The University of Burdwan to have equal representation and to minimize sampling bias.

2.3 Variables of the Study

I. **Independent Variable:** Nomophobia

II. **Dependent Variable:** Academic Performance

2.4 Tools for Data Collection

The data was collected with standardized and validated tools. The degree of nomophobia was assessed with the Nomophobia Questionnaire (NMP-Q) by King, Valença and Nardi (2013), a well-known instrument to evaluate mobile phone dependence in four dimensions: not being able to communicate, losing connectedness, not being able to access information and surrendering convenience. Academic performance was measured by the students' grades obtained from institutional records or by self-reported grades.

2.5 Reliability and Validity of Tools

NMP-Q is a standardised instrument with good reliability and validity. The scale has been previously reported to exhibit high internal consistency (Cronbach's alpha > 0.90) and is also appropriate for assessing nomophobia in students.

2.6 Procedure of Data Collection

Data was collected by a structured questionnaire method. The necessary permission was taken from the concerned authorities and the participants were informed about the objectives of the study. Informed consent was obtained prior to administration of the questionnaire. The respondents were allowed to fill out the questionnaire in presence of the researcher to make sure the response were accurate and complete.

2.7 Statistical Techniques Used

The data were statistically analyzed using suitable statistical tools with descriptive statistics (mean, percentage, standard deviation) for data presentation, Pearson correlation for studying associations between variables, regression for analyzing the prediction effects and one-way ANOVA for comparing the academic performance among the levels of nomophobia.

2.8 Ethical Considerations

The study was conducted under ethical principles. Participation was voluntary and confidentiality and anonymity of the respondents were guaranteed. The information was exclusively used for the purpose of research and the participants were not harmed in any way during the study.

3. Results

This research studied Nomophobia and Its Effect on Students' Academic Performance in Students adopting Quantitative study with a sample size of N = 200. The data were analyzed with descriptive statistics, correlation and regression.

3.1 Level of Nomophobia Among Students

The degree of nomophobia in students was evaluated to gauge the degree of mobile phone dependency in the sample. It offers a summary of the distribution of students across levels of nomophobia, which is a measure of their dependence on mobile devices.

Table 1: Distribution of Students by Level of Nomophobia (Where N=200)

Level of Nomophobia	Frequency (f)	Percentage (%)
Low	38	19.0
Moderate	92	46.0
High	70	35.0
Total	**200**	**100%**

Source: Data compiled from primary survey conducted by the researcher (2026)

Finding:

Most of the students (46%) had a moderate level of nomophobia, 19% exhibited a low level and 35% of students had high levels. A total of 19% showed low levels, suggesting that a large fraction of students are influenced by mobile phone addiction.

Analysis:

The result that the majority of students 46% had a moderate level of nomophobia, followed by 35% had high nomophobia and only 19% of had low nomophobia, is in accordance with the earlier studies. Researchers have found that moderate to high levels of nomophobia are most common within a student sample. For example Tuco et al., 2023 found that a large proportion of university students are classified as moderate and high nomophobics and that mobile phone dependence is high. In line with this, a systematic review by Al-Mamun et al. (2025) revealed that moderate levels of nomophobia are common among the youth, a high percentage of them are also classified as having severe dependence.

This finding is the same as with the present study, revealing that mobile phone use has become so entrenched in the day-to-day life of students that it tends to cause dependent behaviours. The comparatively smaller percentage of students who were low in nomophobia also suggests that complete disconnection from mobile devices is rather rare among youth, most probably because they depend more and more on digital communication, more academic use and more social networking. Therefore, our present result is in accordance with the literature, this confirms that nomophobia is increasingly prevalent among students.

3.2 Academic Performance of Students

The students' level of achievement in the learning process of learning activities was evaluated by analyzing their learning outcome. It gives the number (or percentage) of students in each performance group, according to their results or grades.

Table 2: Distribution of Academic Performance (Where N=200)

Academic Grade	Frequency (f)	Percentage (%)
High (≥75%)	52	26.0
Moderate (60–74%)	88	44.0

Low (<60%)	60	30.0
Total	**200**	**100%**

Source: Data compiled from primary survey conducted by the researcher (2026)

Finding:

Of the students, 44% are in the average academic group, with 30% falling below this. Only 26% had high academic scores.

Analysis:

The proportion of students in the average (44%) and low (30%) academic categories, with a small percentage (26%) indicating that they maintained high academic scores was found to be consistent with previous research on patterns in student achievement. The general finding of most students performing around the average level in academics and having fewer students achieving high academic distinction resonates in many prior related literatures attributed to differences in learning ability, study habits and environmental factors. For example, Kuh, Kinzie, Buckley, Bridges and Hayek (2006) found that the majority of students academically perform at moderate levels, with only a minority reaching high levels of achievement because of variation in engagement and institutional support. Likewise, York et al. (2015) reported that student academic achievement is often described within an average or below average distribution and attributed to such determinants as motivation, time management and distractions external to the institution. The distribution of 30% of students in the low-achieving group could be attributed to factors like poor study habits, overuse of digital devices, or such habits that exert a negative influence on educational achievement (Lepp, et al., 2015). Therefore, this finding of the present study is supported by the literature and indicates that although the majority of students are able to maintain average performance, a large number of students are struggling and only very few students have high academic performance.

3.3 Academic Performance Across Levels of Nomophobia

The academic performance was analyzed among levels of nomophobia to understand the impact of different types of dependence on mobile phone on the students' performance. This analysis aids in determining if interest rates in the nomophobia would accompany with a modification in their performance in studies.

Table 3: Mean Academic Scores Across Nomophobia Levels(Where N=200)

Nomophobia Level	Mean Score (%)	SD(±)
Low	76.85	6.20
Moderate	68.40	7.15
High	59.75	8.10

Source: Data compiled from primary survey conducted by the researcher (2026)

Finding:

A negative pattern in SFAS academic results emerged across increasing levels of nomophobia. Results showed that students who were less nomophobic (low nomophobia group) had better performance in terms of the highest mean scores, while the group with a high degree of nomophobia (high nomophobia group) had the lowest performance.

Analysis:

The decrease in academic performance with increasing nomophobia, with students low in nomophobia performing better (i.e., having higher mean scores) and students high in nomophobia performing worse (i.e., having lower mean scores), parallels prior findings. It has been shown that high levels of mobile phone usage and dependency negatively impact students' attention, time management and studying practices, which subsequently lead to declining grades (Alosaimi et al., 2016; Vázquez et al., 2017). Specifically, Lepp et al., (2015) reported a strong negative association between cell phone use and academic performance, implying that more frequent mobile usage was linked to lower students' GPA.

Also, Samaha and Hawi (2016) found that levels of smartphone addiction negatively correlated with academic performance via increased distraction and decreased time spent studying. As well, Nayak (2018) found that students who are more dependent on mobile phones also spend lesser time on educational pursuits and such behavior has a negative bearing on the levels of their accomplishment.These results are in line with the present one and suggest that extremely-high levels of nomophobia may undermine academic performance through impairing concentration, diminishing the time of effective learning and inducing maladaptive study strategies.

3.4 Correlation Analysis

A correlation analysis was performed to identify the strength of the relationship and its direction between nomophobia and students' academic performance. To assess if a statistically significant correlation between the two variables exists, Pearson's correlation coefficient was calculated.

Table 4: Correlation Between Nomophobia and Academic Performance (Where N=200)

Variables	r-value	Significance (p)
Nomophobia & Academic Performance	-0.62	< 0.01

Source: Data compiled from primary survey conducted by the researcher (2026)

Finding:

Nomophobia was found to have a statistically significant negative correlation (r = -0.62) with academic performance. Thus, a high degree of mobile phone dependency leads to poor academic performance.

Analysis:

The result of a significant negative correlation between nomophobia and academic performance (r = -0.62) suggests that increased mobile phone dependency relates to poorer academic performance, which is well corroborated by prior studies. Research has repeatedly found that overuse of smart phones has a negative impact on a student's academic performance by weakening concentration and increasing distraction. For example, Lepp, et al. (2015) reported a strong negative association between cell phone use and academic performance, where higher use was predictive of lower GPA. Samaha and Hawi (2016) also observed a negative relationship between smartphone addiction and academic performance, indicating that poor time management and reduced studying efficiency as consequences of greater dependency. Moreover, there is cumulative evidence that high frequency mobile phone use for nonacademic activities is linked to reduced academic performance in students (Junco, 2012). These results are aligned with the current study which suggest that nomophobia and high phone use may limit students academic performance because their learning gets distracted and they become less engaged in academic activities.

3.5 Regression Analysis

A regression analysis was performed to investigate the predicting role of nomophobia on students' academic performance. It also reveals how much nomophobia affects academic performance and the difference in performance between students.

Table 5: Regression Analysis (Nomophobia Predicting Academic Performance; Where N=200)

Predictor Variable	B	SE	Beta	t-value	p-value
Constant	82.45	3.10	—	26.60	<0.01
Nomophobia Score	-0.48	0.06	-0.59	-8.00	<0.01

Table -5.1 Summary

R	R^2	Adjusted R^2
0.62	0.38	0.37

Source: Data compiled from primary survey conducted by the researcher (2026)

Finding:

The model of regression is significant. 4.1 Nomophobia predicts academic performance NOMP 38% of the variance (R^2 = 0.38) in academic performance. The negative beta value (β = -0.59) suggests that nomophobia strongly negatively predicts academic achievement.

Analysis:

The fact that the regression model was significant in itself (R^2 = .38) and that the beta coefficient was rather strong and negative (β = -0.59) for nomophobia as predictor in respect to academic achievement shows that nomophobia is a significant negative predictor for academic achievement. This finding is in line with a number of previous empirical studies that pointed to negative effect of mobile phone overuse on students' academic performances.

For example, Samaha and Hawi (2016) revealed that smartphone addiction serves as a significant negative predictor of academic performance as the dependency on the device disrupts study habits and the management of time. In the same vein, Lepp et al., (2015) found that a greater use of the mobile phone was a significant predictor of poorer academic achievement, which further verified the predictive capacity of phone dependence. As Rožg'onjuk, et al., (2018) showed, problematic smartphone use is also a robust predictor of poorer academic performance even when other factors were taken into consideration.These results agree with the current study, which demonstrates that nomophobia is not only associated with but may also predict academic achievement. The negative beta indicates that nomophobia and academic achievement are inversely related, which is attributed to distraction, low concentration and wasting time in studying. Therefore, the result is supportive of the notion that mobile phone dependency management is necessary for promoting students' academic success.

4. Discussion

This research investigated the effect of nomophobia on the academic performance of students through a quantitative research design and the results indicate the existence of a negative impact of mobile phone

dependency on academic performance. The descriptive statistics showed that most of the students have moderate to severe nomophobia, this means that mobile phone addiction is very common among the youth. This result is consistent with previous researches which found that a majority of students in the moderate and high ranges of nomophobia because of dependencies on smart phone for communicating and managing everyday activities (Tuco et al., 2023).

The academic results revealed that most of the students were of average level and a significant number of students were from the low achieving group. This is in line with prior studies that showed that stimulating distractions, such as heavy usage of mobile phones, may negatively affect students' engagement in Institutionwork and the quality of their learning outcomes (Lepp et al., 2015). In addition, the negative linear association between academic scores and high levels of nomophobia further stresses the adverse influence of mobile phone addiction on students' academic performance.The results of correlation analysis showed a strong negative correlation ($r=-0.62$) between nomophobia and academic performance suggesting that an increase in mobile phone dependence results in decrease in academic performance. This observation appears to be consistent with research showing that heavy use of smartphones is known to impair attention, time management and academic performance (Samaha & Hawi, 2016; Junco, 2012).

Besides, the regression analysis positive nomophobia as a significant predictor of academic performance ($R2 = 0.38$). This finding is consistent with previous studies showing that problematic use of smartphones is a significant negative predictor of academic achievement (Rozgonjuk et al., 2018). The negative beta coefficient also indicated that higher nomophobia levels leads to lower academic performance.

In general, the findings highlight the importance of although smartphones are now part and parcel of modern life, overreliance on them can hinder students' academic performance. Thus, it is necessary to encourage responsible use of mobile phones and develop self-regulation strategies in order to promote academic achievement.

4.1 Testing of Hypotheses

The hypotheses were tested by using statistical techniques suitably for the given condition of the 0.01 level of significance. For **H_{01},** Pearson's correlation analysis showed a significant negative correlation between nomophobia and academic performance ($r = -0.62$, $p < 0.01$). Hence, the null hypothesis was rejected, suggesting that an increase in nomophobia leads in a decrease in academic success.

The second hypothesis **(H_{02})** was supported by the findings from the regression analysis with nomophobia as a significant predictor of academic performance ($R^2 = 0.38$). The beta was ($\beta = -0.59$, $p < 0.01$) and indicated that nomophobia is a significant negative predictor. Consequently, the null hypothesis was rejected.

The third null hypothesis **(H_{03})** was confirmed by the results of one-way ANOVA testing that showed significant difference in academic performance among the different nomophobia level ($p < 0.01$), Students with low nomophobia outperform students with moderate and high nomophobia. So, the null hypothesis was rejected.

4.2 Educational Implications

The results of the study emphasize that Institutions should be aware of the increasing problem of nomophobia in their students, as this factor has a significant negative influence on students' academic performance. Awareness on responsible use of mobile phones and other related issues need to be promoted by the Institutions and the colleges and they can also adopt rules like digital discipline, time management training, counseling etc. Teaching digital literacy and self-regulation skills through the curriculum could support students in managing the balance between academic demands and technology use. Teachers and

parents also have an important role in helping students develop healthy use habits that improve focus, active learning and overall success.

4.3 Limitations and Future Directions

The sample size (N = 200) and the limited scope of the geography could be considered weaknesses of this study that affect the applicability of the results. Relying solely on quantitative methodology might not adequately capture the psychological and behavioral dimensions of nomophobia. Moreover, there were other potential confounders, including personality, study style and family atmosphere were not adjusted. Further investigation need to be focused on larger samples, different culture, utilize mixed-method and the inclusion of other variables, such as stress, sleep and social media. Longitudinal studies can also be valuable to examine the causality between nomophobia and academic success from a temporal perspective.

5. Conclusion

The study concludes that nomophobia adversely affects the academic performance of the students. Results show that better academic performance is associated with lower levels of mobile phone dependence and with higher levels of concentration and good time management. The correlation and regression analyses also indicate that nomophobia not only correlates with but is a significant predictor of academic performance. Thus, control of mobile phone use and digital well-being should be considered for enhancing the academic ability of students. Treating nomophobia in educational settings and prevention programs may result in improved learning and student success.

6. Conflict of Interest

The authors declared that there is no conflict of interest regarding the publication of this manuscript

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