The Prevalence of Nomophobia Among Prospective Teachers in Kerala

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Abstract

"Nomophobia" (no mobile phobia) represents the discomfort or anxiety associated with being without a mobile phone. It contributes to stress among individuals, intensified by the constant connectivity expected in modern technological settings. Nomophobia, coupled with the demands of teaching, adds an extra layer of stress, potentially impacting teachers' well-being and their interactions with students. Addressing teacher stress is being crucial for creating a positive learning environment, this cross-sectional study found out the prevalence of nomophobia among 307 prospective teachers of Kerala. Nomophobia was measured by using NMP-Q and it was found that 64.2 percent of prospective teachers have moderate level of nomophobia, where as 8.8 percent report to be severely nomophobic. Nomophobia is not significantly associated with sex, marital status, domicile, type of management and qualification (P > .05), but with the locality of respondents (P ≤ .05). The prevalence of nomophobia among prospective teachers is very high. No significant correlation between nomophobia and usage time was found among prospective teachers.

Keywords: Nomophobia, Prospective teachers, Use of smartphones

The widespread use of smartphones in daily life has led to something interesting and worrying called "Nomophobia" – the fear of being without one's mobile phone. It is regarded as a modern phobia of the digital era, closely tied to the problematic utilization of mobile technologies (Gezgin, et al., 2017). Nomophobia, short for "no mobile phone phobia," is an area of keen interest for researchers in the last two decades of 21st century and it is taken as the discomfort, anxiety, nervousness, or anguish caused by being out of contact with a mobile phone (King et al., 2010; Kuss & Griffiths, 2011; Grosseck & Bran, 2011; Yildirim & Correia, 2015).

Yildirim and Correia (2015) delineated nomophobia as a phenomenon characterized by the fear of losing access to information, connectivity, and communication abilities, where as Bhattacharya et al. (2019) defined nomophobia as a psychological condition marked by individuals' fear of detachment from mobile phone connectivity. This definition has been proposed for the inclusion of nomophobia in the fifth edition of the American Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a psychological disorder, where it is described as a "phobia related to a particular situation, such as the absence of mobile phones."

In today's technological culture, smartphones have transformed beyond simple communication devices. They now serve as portable hubs and super minicomputers, fundamentally altering the way we gather information, cultivate social connections, and navigate our personal lives. Hence smartphones has transitioned into a social tool and an integral part of everyone's daily routines (Parasuraman et al., 2017). There is a growing dependence on technology, particularly smartphones, with a noticeable emphasis on adolescents compared to other demographic groups (Jayalakshmi et al., 2018).

The shift from loving the internet to being hooked on smartphones is like entering a world where cool design and digital beauty come together, creating nomophobia and smartphone addiction. Nomophobia and smartphone addiction exhibit different behaviours toward smartphone use; however, they are interconnected by common symptoms and co-occurring disorders (Bragazzi & Puente, 2014; Park, 2005; King et al., 2013). The key distinction lies in the behaviour: nomophobia is about the emotional response to not using a smartphone, while smartphone addiction is characterised by the excessive and harmful use of the device, regardless of the consequences (Bian & Leung, 2015).

Nomophobia is characterized by multiple symptoms. Bragazzi and Puente (2014) identified prolonged smartphone use, constant charger carrying, fear of losing the phone or network, frequent calling/texting, inability to disconnect, reliance on digital communication over face-to-face interaction, and financial strain as characteristics, where as Kanmani et al. (2017) identified constant phone usage, obsessive checking, always having the phone, inappropriate use, and favouring phone contact over in-person interaction as the characteristics of nomophobia. Bian and Leung (2015) identified disregarding harm, excessive preoccupation, loss of control, decreased productivity, and anxiety as symptoms of smartphone addiction.

Even though there are many benefits of using smartphones, there can also be effects on the social, emotional, and psychological well-being of an individual. It can lead to several mental health consequences, impacting work and school performance, and reducing face-to-face social interactions in favour of virtual interactions. Spitzer (2015) explained that side effects of excessive smartphone usage include addiction, attention deficit disorder, empathy disorder, academic underachievement due to interrupted learning, hypertension, obesity, anxiety, depression, personality disorders, aggression, dissatisfaction, and loneliness. Anjali (2021) has identified that the duration of mobile phone usage has a negative impact on the academic performance of students in their examinations. In the study conducted by Saikumari and Thirumalaivasan (2023) among the prospective teachers , it has been noted that there is a significant positive but negligible relationship between the level of nomophobia and the academic achievement.

While smartphones offer significant benefits for educational stakeholders, aiding learning through various resources, their extensive use also poses a risk of addiction. The convenience of accessing non-educational content, like social media and entertainment, can hinder focus and productivity. Striking a balance involves implementing strategies such as setting usage limits, promoting digital wellness, and integrating

technology responsibly into the educational framework. Educators and students must leverage smartphones for educational purposes while mitigating the potential downsides of excessive use.

This study on nomophobia among prospective teachers was prompted by the evolving role of technology in education, particularly the widespread use of smartphones for teaching and learning. Prospective teachers, as the conduits of educational knowledge and technological integration, play a pivotal role in shaping how technology is utilized in classrooms. Understanding the prevalence of nomophobia in this group is crucial due to the growing integration of technology in the teaching profession, potentially impacting their well-being and effectiveness in the classroom. As prospective teachers are the educators of tomorrow, understanding the prevalence of nomophobia in this specific group is very important.

Need and Significance

Nomophobia, or fear of being without a mobile phone, significantly impacts the well-being of individuals especially college students. As the number of students using smartphones is dramatically increasing, this basic issue attracts much attention. Balancing mobile phone use is crucial for the overall well-being of an individual. Research links it to lower academic performance, attention issues, depression, anxiety, sleep problems, loneliness, and decreased happiness. Excessive smartphone use is associated with various psychological disorders, including stress and anxiety.

Many studies are conducted among professional students, especially of medical fields and have reported nomophobia among medical students (Sharma et al., 2015; Pavithra et al., 2015; George et al., 2023; Sethia et al., 2018; Madhusudan et al., 2023; & Prasad et al., 2017) and Dasguptha et al. (2017) reported higher proportion of engineering students are nomophobic than medical students.

Studies in Kerala reveal wide variation in nomophobia prevalence: 99.6% among medical students in Central Kerala with no demographic associations (George et al., 2023), 34.8% among nursing students in Kollam linked to study year and phone use (Sreedevi et al., 2022), and 97% among medical students in Wayanad, predominantly moderate (Madhusudan et al., 2017). A national meta-analysis similarly reported 25% mild, 59% moderate, and 14% severe cases among medical students, with Kerala reflecting these trends (Mishra et al., 2025). However, evidence regarding prospective teachers in Kerala is lacking.

Teaching is considered as a noble profession but teachers are found to be not enjoying the states of a professional. Teachers are reported to be of high stress due to various factors inside and outside the classrooms. Okaz (2015) reported nomophobic students create much pressure for teachers in planning and implementing classroom activities. Systematic preparation to be successful teacher is done during teacher education programmes and it will be relevant to know the prevalence of nomophobia among prospective teachers and its correlates.

In this context, this study aimed to determine the prevalence of nomophobia among prospective teachers in Kerala. This study provides a broader implications for educational policies and teacher training. By addressing nomophobia, educational institutions can better support teachers in effectively incorporating smartphones into their instructional strategies, ultimately shaping the future of education.

Objectives

The study has the following major objectives.

- To determine the extent of nomophobia among prospective teachers in Kerala.

- To find out the relation between Nomophobia and demographic factors.

- To find out the correlation between nomophobia and usage time

Hypotheses

- There is no significant association between nomophobia and demographic variables viz.
    - i. Sex
    - ii. Marital status.
    - iii. Domicile.
    - iv. Type of institution.
    - v. Locale.
    - vi. Qualification.

- There is no significant correlation between nomophobia and usage time.

Methodology

Research Design

This cross-sectional study was conducted at eight Teacher Education Colleges in Kerala. A total of 307 students who were willing to provide informed consent from 5 districts of Kerala under the jurisdiction of University of Calicut were selected by using stratified random sampling technique. The sample consists of 278 (90.6%) females and 28 (9.1 %) males; 7 (2.3 %) students from Govt. Colleges, 58 (18.9 %) from Aided Colleges, 99 (32.2 %) from University Teacher Education Centres and 143 (46.6 %) from Self Financing Colleges.

Instrument Used

The prevalence of nomophobia was assessed using the nomophobia questionnaire (NMP-Q) (Yildirim & Correia, 2015). This questionnaire comprises 20 questions, each assessed on a 7-point Likert scale. The 20 items are classified under the four sub-dimensions as, Not Being Able to Access Information (4 items), Losing Connectedness (5 items), Not Being Able to Communicate (6 items) and Giving up Convenience (5 items).

The cumulative responses to these items yield a total score, where higher values indicate more severe levels of nomophobia. The lowest possible score for the NMP-Q is 20 (20 x 1), while the highest achievable score is 140 (20 x 7). The questionnaire demonstrates excellent reliability, with final reliability values estimated at 0.83 and 0.93 by Guttmann's and Cronbach's alpha coefficients, respectively. These results underscore the questionnaire's robustness and affirm its good construct validity.

Data Collection and Analysis

Prospective teachers who were ready to participate in the study were given the questionnaire in the form of Google Forms with prior permission from the authorities of their institutions. They were requested to complete the questionnaire which comprised their socio-demographic characteristics and Nomophobia Questionnaire. To standardise the responses, a scoring key was applied. Each item in the NMP-Q is rated on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree), resulting in a total score indicating nomophobia severity. A higher score indicates a greater

level of nomophobia.

The interpretation of the NMP-Q score into the level of nomophobia (out of a total score between 20 and 140) is 20 corresponding to the absence; 21–59 corresponding to a mild level; 60–99 corresponding to a moderate level; and ≥100 corresponding to severe level (Yildirim & Correia, 2015).

The collected data were compiled and analysed in SPSS version 29. Descriptive statistics like mean and percentage and also inferential statistics like Chi-square test and Pearson's Correlation Coefficient were done to find out the association and relationship. The p - values is considered as < 0.05 for significance.

Results

When the scores of nomophobia were analysed, it was found that the least score obtained is 21 and highest score is 133. The mean score is 72.5 with standard deviation 21.7. Therefore prospective teachers are found to be moderately nomophobic. To know the prevalence of nomophobia among prospective teachers the percentage of having nomophobia at different levels was calculated and it is given in the Table 1.

Table 1

Grades of Nomophobia

Grades of Nomophobia	Frequency	Percent
Mild	83	27.0
Moderate	197	64.2
Severe	27	8.8
Total	307	100.0

Table 1 shows that 27 percentage of prospective teachers (N = 307) have mild level of nomophobia and 8.8 percent have severe nomophobia, and 64.2 percent have moderate level of nomophobia are reported.

Table 2

Association between Nomophobia and Demographic Variables

Variables	Chi-square Value	df	P value
Nomophobia Vs Sex	1.253	2	.534
Nomophobia Vs Marital Status	.532	2	.766
Nomophobia Vs Domicile	.549	2	.760
Nomophobia Vs Type of Management	1.164	4	.884
Nomophobia Vs Locale	8.220	2	.016
Nomophobia Vs Qualification	1.181	2	.554

Table 2 reveals that nomophobia is not associated with sex as the chi-square value obtained (1.253) is less than that required for significance at .05 level for 2 degrees of freedom. It can be seen that the test statistic calculated is less than required for significance (.05 level) with 2 degrees of freedom in the case of marital status and domicile(.532, .549 respectively). In the case of type of management and qualification the chi-square value obtained (1.164 1.181 respectively) is less than required for significance (.05 level) with 4 and 2 degrees of freedom respectively. But in the case of locale the chi-square value obtained (8.220) is greater than the required for significance at .05 level for 2 degrees of freedom. Hence, it can be concluded that nomophobia is not significantly associated with sex, marital status, domicile, type of management and qualification; but is significantly associated with locale.

Table 3

Grades of Nomophobia and Locale

Grades of Nomophobia	Rural (%)	Urban (%)
Mild	24.4	33.0
Moderate	69.0	53.2
Severe	6.6	13.8
Total	100.0	100.0

Among prospective teachers from rural area 24.4 percent have mild, 69 percent have moderate and 6.6 percent have severe nomophobia, whereas from urban area 33 percent have mild, 53.2 percent have moderate and 13.8 percent have severe nomophobia.

In order to find out whether nomophobia is related with usage of time, Pearson's product moment correlation was calculated and the value obtained is 0.221, indicating that there is no significant relation between nomophobia and usage time of smartphones.

Discussion

The present study revealed that a majority of prospective teachers in Kerala experience moderate levels of nomophobia (64.2%), with smaller proportions reporting mild (27%) and severe (8.8%) forms. These findings indicate that nomophobia is a prevalent psychological concern within this population, reflecting the high prevalence reported among health science students in Kerala and across India. For instance, George et al. (2023) identified a prevalence of 99.6% among medical students in Central Kerala, while Madhusudan et al. (2017) documented 97% among medical students in Wayanad, predominantly moderate in severity. By contrast, Sreedevi et al. (2022) reported a considerably lower prevalence of 34.8% among nursing students in Kollam, suggesting program-specific and contextual variations. At the national level, Mishra et al.'s (2025) meta-analysis concluded that most Indian medical students experience moderate nomophobia (59%), a pattern mirrored in the present findings among prospective teachers.

Unlike some previous studies where demographic associations such as year of study or usage patterns were significant (Sreedevi et al., 2022), the current investigation found no significant associations with sex, marital status, domicile, type of institution, or qualification. The only significant factor was locale, with urban prospective teachers showing a higher likelihood of severe nomophobia compared to their rural counterparts. This rural–urban differential may reflect the intensity of digital immersion and social connectivity expectations in urban contexts, aligning with earlier observations that digital dependence tends to be accentuated in technology-rich environments (Parasuraman et al., 2017).

Another notable finding is the absence of significant correlation between nomophobia and duration of smartphone use. While prior research (e.g., Anjali, 2021) has highlighted the negative academic impact of prolonged phone use, the present study suggests that nomophobia among prospective teachers may be less about quantitative use and more about qualitative dependency—fear of disconnection, information inaccessibility, and diminished communication. This aligns with the conceptualization of nomophobia as an anxiety-driven condition distinct from mere smartphone addiction (Bian & Leung, 2015).

Implications

The findings highlight those moderate levels of nomophobia are prevalent among prospective teachers in Kerala, with potential consequences for classroom management, creative lesson delivery, and healthy student interactions. Consistent with Okaz (2015), nomophobia creates a dual challenge—teachers may struggle with their own digital anxiety while also facing pressures from students' smartphone dependency—making it a bidirectional pedagogical issue.

The lack of significant association with most demographic factors suggests that nomophobia cuts across categories such as sex, marital status, or qualification. However, its link with locale underscores contextual influences, particularly the digital divide between urban and rural settings, which merits further exploration. This situates nomophobia not just as an individual psychological concern but also as a socio-educational phenomenon shaped by environment.

For teacher education, the implications are clear: eliminating smartphones is impractical, but equipping future teachers with digital wellness training, self-regulation strategies, and responsible technology use is essential. Embedding such competencies into curricula can mitigate stress, enhance productivity, and safeguard teaching effectiveness, while preparing educators to navigate the digital landscape in balanced and constructive ways.

Conclusion

There is a high prevalence of nomophobia among prospective teachers of Kerala. Nomophobia is not found to be associated with sex, marital status, qualification, domicile and type of institution, but is associated with the locality of the respondents and there is no significant relationship between nomophobia and usage time. By fostering awareness of smartphone usage and promoting self-esteem, educational institutions can contribute to a more supportive and positive environment for prospective teachers. This, in turn, will not only improve the well-being of educators but also enhance the overall quality of education, fostering a more positive and effective learning atmosphere for students. Even though, smartphones are going to be replaced by AI Pin, recognizing and addressing these challenges is essential for creating a resilient and thriving educational community.

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