

Nomophobia and anxiety Levels among Nursing Students in Maharashtra

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Abstract:

In the digital era, excessive smartphone use has led to nomophobia, defined as the fear or discomfort of being without a mobile phone. Undergraduate nursing students are particularly susceptible to this phenomenon as they balance demanding academic schedules, clinical responsibilities, and emotional stress. This study aimed to assess the prevalence of nomophobia and anxiety, and to determine the statistical relationship between these two conditions in this population.

Methods: A descriptive cross-sectional study was conducted among 50 undergraduate nursing students in Maharashtra using purposive sampling. Data were gathered using the standardized Nomophobia Questionnaire (NMP-Q) and the Generalized Anxiety Disorder Scale (GAD-7). The collected data were analysed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics, specifically Karl Pearson's correlation coefficient.

Results: The study found that 50% of students experienced moderate nomophobia, 34% mild, and 16% severe levels. Regarding anxiety, 40% of students reported moderate levels, while 38% had minimal, 18% mild, and 4% severe anxiety. A very strong positive correlation ($r = 0.9519$) was identified between nomophobia and anxiety, indicating that higher levels of mobile phone dependency are directly associated with increased anxiety levels.

Discussion and Conclusion: Nomophobia is highly prevalent among nursing students and serves as a significant contributor to psychological distress. These findings emphasize the urgent need for early identification, digital well-being awareness programs, and targeted mental health interventions, such as psychological counselling, to support the overall well-being of nursing students in the digital age.

Keywords: Nomophobia, Anxiety, Nursing Students, Maharashtra, Mobile Phone Dependence

Introduction:

In the contemporary digital era, mobile phones have transitioned from basic communication devices into indispensable tools for daily living, serving as platforms for education, social networking, entertainment, and personal connectivity. While smartphones offer unprecedented convenience and access to information, their pervasive use has fostered a new psychological phenomenon known as nomophobia—the "no-mobile-phone-phobia."⁽¹⁾ Nomophobia is defined as the fear, anxiety, or discomfort experienced by individuals when they are unable to access their mobile devices or are disconnected from digital networks. This emerging issue is particularly prevalent among young adults and college students, who often rely on technology to navigate both their social lives and academic requirements⁽²⁾.

Undergraduate nursing students represent a specific demographic that is highly susceptible to digital dependency due to the unique rigours of their professional training. These students must balance intensive academic schedules with demanding clinical rotations and the emotional toll of patient

care⁽³⁾. In such a high-pressure environment, many students utilize smartphones as a primary coping mechanism for relaxation and maintaining social support systems. However, this reliance can easily evolve into an unhealthy dependency characterized by constant device checking, sleep disturbances, and significant distraction during study hours. When the device is inaccessible, these students often experience heightened emotional insecurity and restlessness⁽⁴⁾.

Anxiety, a multidimensional emotional response involving tension, worry, and physiological stress, is a common concern among students in healthcare disciplines. When smartphone dependency is present, separation from the device can trigger or exacerbate these anxious states, leading to irritable behavior and physiological distress. While various global studies have identified a positive correlation between high levels of nomophobia and increased anxiety, there remains a critical need to examine these variables within the specific cultural and educational context of Indian nursing institutes. Separation from one's "digital lifeline" can become a significant source of stress that compounds existing academic pressures⁽⁶⁾.

The "double-edged sword" of smartphone connectivity means that while it offers educational resources, it also fosters a dependency that may have long-term implications for mental health⁽⁷⁾. Recent research in other Indian states has indicated that a vast majority of nursing students experience moderate to severe nomophobia, yet the phenomenon is often overlooked as a mere habit rather than a psychological concern⁽⁸⁾. Localised empirical data is essential for educators and mental health professionals to develop effective coping strategies and awareness programs. Understanding the depth of this relationship is vital for promoting healthier technology habits and safeguarding the overall well-being of the future nursing workforce⁽⁹⁾.

Research Gaps:

There is a significant dearth of research addressing the dual prevalence of nomophobia and anxiety levels specifically among undergraduate nursing students in Maharashtra. Most existing literature focuses on general college populations or lacks a statistical analysis of how anxiety manifests across varying levels of nomophobia within the high-stress context of nursing education in this region.

Objectives

1. To assess the prevalence of nomophobia among undergraduate nursing students in selected institutes of Maharashtra.
2. To determine the levels of anxiety (Minimal, Mild, Moderate, Severe) among undergraduate nursing students in selected institutes.
3. To assess the statistical relationship between nomophobia levels and anxiety levels in this population.

Assumptions:

There will be a significant relationship between nomophobia and anxiety levels among undergraduate nursing students in the selected institutes of Maharashtra.

Methodology:

Research approach: A quantitative descriptive research approach was utilized for the present study.

Research design: The study adopted a descriptive cross-sectional research design to assess the prevalence of nomophobia and its relationship with anxiety.

Samples and Sampling Technique: A sample of 50 undergraduate nursing students was selected using a non-probability purposive sampling technique.

Tools Used in the Study: The researchers employed a demographic data sheet, the standardized 20-item Nomophobia Questionnaire (NMP-Q), and the 7-item Generalized Anxiety Disorder Scale (GAD-7). These tools were utilized to measure levels of mobile phone dependency and psychological distress.

Methods of data collection: Data were gathered through standardized 20-item Nomophobia Questionnaire (NMP-Q), and the 7-item Generalized Anxiety Disorder Scale (GAD-7), after obtaining ethical clearance and informed consent from the participants. Confidentiality and anonymity were maintained throughout the data-gathering process.

Result:

The data collected from 50 undergraduate nursing students were analysed using descriptive and inferential statistics to address the study objectives.

Table 1: Socio-Demographic Profile of Participants (N = 50)

Sr. No.	Socio-Demographic Variables	Frequency	Percentages	
1	Age (in years)	a. 18-20	31	62
		b. 21-23	18	36
		c. 24 and above	1	2
2	Gender	a. Male	15	30
		b. Female	35	70
		c. Other	0	0
3	Course and Year	a. ANM	10	20
		b. GNM	25	50
		c. B.Sc. (N)	15	30
4	Hours spent online per day	a. < 2 hours	23	46
		b. 2-4 hours	24	48
		c. 4-6 hours	2	4
		d. > 6 hours	1	2

Cont...

5	Preferred social media platforms	a. Instagram	30	60
		b. Facebook	4	8
		c. Snapchat	10	20
		d. Bumble	2	4
		e. Thread	2	4
		f. Other	2	4
6	Duration of social media use (in years)	a. Less than 2 Years	21	42
		b. 2-4 Years	20	40
		c. 5 years and more	9	18
7	How many times a day do you check your phone?	a. Less than 10	23	46
		b. 10-20 times	4	8
		c. 21-30 times	2	4
		d. 31-40 times	1	2
		e. 41 and more	20	40

Objective 1: Prevalence of Nomophobia among Undergraduate Nursing Students The analysis of NMP-Q scores revealed that moderate nomophobia was the most common level, observed in 50% (n=25) of the participants. Mild nomophobia was present in 34% (n=17), while 16% (n=8) exhibited severe levels. The overall mean nomophobia score was 30.64 ± 13.81 out of a maximum of 70, resulting in a mean percentage of 38.30%. These findings indicate a significant presence of mobile phone dependency within the student population.

Objective 2: Levels of Anxiety among Undergraduate Nursing Students The assessment of anxiety levels using the GAD-7 scale showed that 40% (n=20) of students experienced moderate anxiety. Furthermore, 38% (n=19) reported minimal anxiety, 18% (n=9) had mild levels, and 4% (n=2) suffered from severe anxiety. The overall mean anxiety score was 7.08 ± 4.75 , suggesting that psychological distress is a common experience for these students.

Objective 3: Statistical Relationship between Nomophobia and Anxiety Levels To test the research hypothesis, Karl Pearson's correlation coefficient was calculated. The results yielded a value of $r = 0.9519$, indicating a very strong positive correlation between nomophobia and anxiety. This statistically significant relationship suggests that as a student's level of mobile phone dependency increases, their anxiety levels increase proportionately. Consequently, the research hypothesis is supported, identifying nomophobia as a major psychological factor associated with anxiety in this demographic.

Discussion:

The study indicates that 50% of nursing students experience moderate nomophobia, while 40% report moderate anxiety. These findings align with Objectives 1 and 2, showing that digital dependency is a pervasive issue within Maharashtra's nursing education. The prevalence of moderate to severe nomophobia (66%) is consistent with regional data from Sunny Martina D et al., who identified similar trends among nursing students in Maharashtra. Regarding Objective 3, the very strong positive correlation ($r = 0.9519$) between nomophobia and anxiety scores mirrors broader global research. Ghahramani et al. and Akyuz et al. similarly found that excessive smartphone reliance significantly predicts psychological distress. Separation from one's device triggers irritability and restlessness, compounding the academic and clinical pressures inherent in nursing training. As noted by Ahamed et al., this dependency is particularly acute among younger students who use smartphones for extended periods daily. These results statistically confirm that nomophobia is a substantial psychological factor linked to anxiety, emphasizing the need for institutional digital well-being programs.

Conclusion:

The research concludes that nomophobia and anxiety are highly prevalent and statistically interrelated among undergraduate nursing students in Maharashtra. A very strong positive correlation confirms that as mobile phone dependency increases, anxiety levels rise proportionately. These findings highlight the urgent need for early screening and the integration of digital well-being strategies into the

nursing curriculum. Promoting healthy technology habits and providing psychological counselling are essential to safeguard the mental health and professional performance of the future nursing workforce.

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