



A Study To Assess The Prevalence Of Nomophobia Among Adolescents At Selected Nursing College At Bhopal.

¹Ms. Nupur Roy, ²Ms. Pooja Pandey, ³Anchal Rathore, Priya Thakur, Rani Verma, Shreya Singh, Rahul Jatav

¹Senior Nursing Tutor, ²Nursing Tutor, ³Student

¹Nursing,

¹Career College Of Nursing, Bhopal, India.

Abstract: Nomophobia, or "no mobile phone phobia," is a growing psychological condition characterized by anxiety and discomfort when individuals are separated from their mobile phones. With the increasing dependence on smartphones, particularly among adolescents, this phenomenon has become a public health concern.

This study aims to assess the prevalence and severity of nomophobia among adolescent nursing students, identify its sociodemographic associations, and analyze its impact on academic performance and daily life.

A quantitative, descriptive cross-sectional study was conducted using a structured questionnaire, including the Nomophobia Questionnaire (NMP-Q). The study included 150 adolescent nursing students at a selected college in Bhopal, chosen through purposive sampling. Data were analyzed using descriptive and inferential statistics.

The study revealed that 72% of participants experienced moderate to severe levels of nomophobia. Female students exhibited higher levels of nomophobia than males. The key factors associated with nomophobia were the duration of daily mobile phone use, age, and reliance on mobile phones for academic and social interactions.

Nomophobia is prevalent among nursing students, significantly impacting their academic performance and mental well-being. Interventions such as digital detox programs and awareness campaigns are recommended to address this issue.

Index terms Assess ,Nomophobia ,knowledge ,Prevalence ,Adolescents, Structured Teaching Program ,Nursing, Bhopal

1.Introduction

Background of the Study

Smartphones have revolutionized communication and access to information. However, their excessive use has led to a rise in digital addiction and anxiety disorders, with nomophobia being a major concern. Adolescents, being frequent users of mobile devices, are particularly susceptible to its effects.

While mobile phones are essential for education, socialization, and entertainment, excessive dependence can negatively impact mental health, academic performance, and interpersonal relationships. Research suggests that nomophobia leads to poor concentration, sleep disturbances, and increased stress levels. Despite these issues, there is limited research on its prevalence among nursing students in India.

Adolescents, being active users of smartphones, are highly susceptible to developing nomophobia, a condition characterized by an irrational fear of being without a mobile phone. The increasing reliance on mobile phones for communication, entertainment, and academic purposes has led to various psychological and behavioral consequences. One of the major concerns associated with excessive mobile phone usage is academic distraction. Students often find themselves scrolling through social media, watching videos, or chatting during study hours, reducing their focus and productivity. This decline in attention can lead to poor academic performance, incomplete assignments, and lower retention of information.

Another major consequence of constant smartphone use is poor sleep quality. Research has shown that prolonged screen exposure, especially before bedtime, can disrupt sleep patterns due to the blue light emitted from screens, which interferes with melatonin production. This can lead to insomnia, daytime drowsiness, and reduced cognitive functioning, ultimately affecting academic performance and daily activities. Additionally, reduced face-to-face communication is another alarming effect of excessive smartphone use. Adolescents tend to engage in online interactions rather than in-person conversations, leading to weaker social skills, poor interpersonal relationships, and increased social anxiety.

Moreover, high smartphone dependency contributes to increased anxiety and stress levels. Many adolescents experience nervousness, restlessness, or discomfort when separated from their mobile phones. This fear of missing out (FOMO) on social updates, messages, or online interactions can lead to emotional distress. Despite these serious consequences, nomophobia remains an under-researched issue, especially in the nursing student population, where mobile phones are extensively used for both academic and personal purposes. Understanding the prevalence, severity, and impact of nomophobia among nursing students is essential for developing targeted interventions, awareness programs, and coping strategies to mitigate its adverse effects.

2.Objectives of the Study

The primary objective of this study is to assess the prevalence of nomophobia among nursing students, focusing on how frequently they experience symptoms related to mobile phone dependency. Additionally, this study aims to identify the level of knowledge regarding nomophobia, examining whether students are aware of its psychological, social, and academic consequences. A crucial aspect of this research is to determine the correlation between knowledge of nomophobia and demographic factors, such as age, gender, academic year, and mobile phone usage habits.

3.Review of Literature

Several studies have explored the prevalence and effects of nomophobia among different populations. Gezin et al. (2017) conducted a study that found that female students exhibited higher levels of nomophobia than males, indicating a possible gender-based difference in smartphone dependency. This suggests that women may rely more on smartphones for social interactions and emotional support, making them more vulnerable to digital addiction.

Similarly, Visnjic et al. (2018) reported that mobile phone addiction correlates with increased stress, anxiety, and poor academic performance. Their findings highlight the negative psychological effects of excessive mobile phone use, suggesting that students who spend more time on their phones may experience higher stress levels and difficulty concentrating on academic tasks.

Another study by Mallya et al. (2018) observed that students who spend more than 4 hours daily on their phones are more likely to develop symptoms of nomophobia. Their research indicates that excessive screen time not only affects mental health but also disrupts daily routines, such as sleep patterns and social interactions. Furthermore, Sethia et al. (2018) found that 61.5% of medical students in Bhopal suffered from moderate to severe nomophobia, emphasizing the widespread nature of this issue among healthcare students who rely on technology for their studies.

These findings suggest that nomophobia is a growing concern among students and requires urgent intervention. The increasing prevalence of smartphone addiction necessitates educational initiatives, awareness campaigns, and behavioral interventions to mitigate its impact.

Another objective is to analyze the impact of nomophobia on academic performance by evaluating the relationship between excessive mobile phone use and concentration levels, study habits, and classroom engagement. Furthermore, this study seeks to assess the effects of mobile phone usage on students' daily lives, focusing on aspects such as social interactions, sleep quality, and emotional well-being. Lastly, this

research aims to evaluate the effectiveness of an educational program on nomophobia awareness, measuring whether structured interventions, workshops, or awareness campaigns can help students recognize and manage mobile phone dependency effectively.

4.Methodology

This study utilized a non-experimental, cross-sectional research design to assess the prevalence of nomophobia among nursing students. The research was conducted at a nursing college in Bhopal, focusing on B.Sc. Nursing students aged 18-25 years. This population was chosen due to their frequent use of smartphones for academic and personal purposes.

The study employed a purposive sampling method, selecting 150 students who met the inclusion criteria.

A self-structured questionnaire based on the Nomophobia Questionnaire (NMP-Q) was used for data collection. The questionnaire included:

Section A: Demographic details (age, gender, academic year, mobile phone usage).

Section B: Mobile phone usage habits.

Section C: Knowledge assessment on nomophobia.

Section D: Impact of mobile phone usage on academic and social life.

5.Statistical Analysis

Data were analyzed using descriptive statistics (Mean, Standard Deviation) to determine the prevalence of nomophobia. Additionally, Chi-square tests were conducted to analyze associations between nomophobia and demographic variables.

6.Results and Discussion

Demographic Profile :- The study revealed that 76.7% of the participants were female, and 23.3% were male. It was observed that 86.7% of students used mobile phones for more than 6 hours daily, and 50% of students were active on social media for more than 4 hours daily.

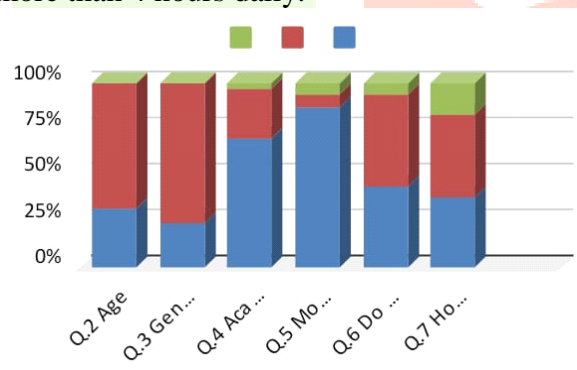


Fig 1.1 Bar graph to describing the demographic variables

Prevalence of Nomophobia :- Findings showed that 72% of participants exhibited moderate to severe nomophobia. Moreover, 25% had inadequate knowledge about nomophobia, indicating a lack of awareness regarding the potential risks of excessive smartphone use. Additionally, more than 90% of students reported struggling to control their mobile phone usage.

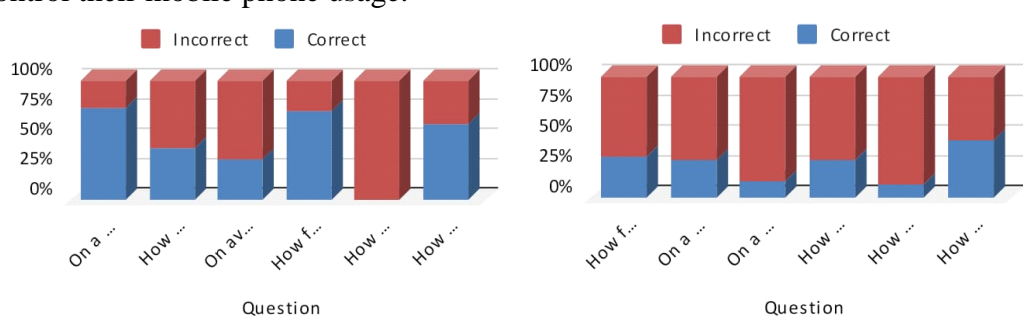


Figure 1.2 Bar Graph to analyze the test score for the prevalence of nomophobia

Correlation with Academic Performance :- A significant correlation was found between high mobile phone usage and poor academic performance. Students who spent more time on their phones reported higher levels of distraction, lower concentration, and difficulties completing academic tasks.

Demographic Variable		Poor Score (0-6)	Good Score (7-12)	Chi-Square	Degrees of Freedom (df)	p-value	Significant (S) / Not Significant (NS)
Age	17-19	7	2	1.05	2	0.591	NS
	20-22	17	2				
	26-28	2	0				
Gender	Female	20	3	0	1	1	NS
	Male	6	1				
Academic Year	First Year	18	3	0.18	2	0.916	NS
	Second Year	7	1				
	Third Year	1	0				
Mobile Phone Usage Frequency	4-6 hours per day	22	4	0.71	2	0.701	NS
	6-8 hours per day	2	0				
	8-10 hours per day	2	0				

Table 2.1 showing the correlation of knowledge of adolescents regarding nomophobia

Gender Differences :- The study also found that female students exhibited higher levels of nomophobia than males, aligning with previous research that suggests women may be more emotionally attached to their mobile devices.

Impact on Mental Health :- A notable 80% of students reported experiencing anxiety when they were unable to use their phones. Additionally, sleep disturbances, eye strain, and increased stress levels were common complaints among participants.

7. Conclusion and Recommendations

This study highlights the high prevalence of nomophobia among nursing students in Bhopal. With smartphones becoming an integral part of students' academic and personal lives, excessive reliance on these devices has led to negative consequences on academic performance, social interactions, and mental well-being. The study's findings indicate that a significant percentage of students experience moderate to severe nomophobia, with many struggling to control their smartphone use. This excessive dependence on mobile devices has resulted in academic distractions, poor concentration, disrupted sleep patterns, and increased anxiety levels.

Nomophobia not only impacts cognitive functioning and learning efficiency but also affects social relationships by reducing face-to-face communication skills. Many students reported feeling uneasy, restless, or anxious when separated from their mobile phones, further reinforcing the psychological impact of excessive smartphone dependency. Additionally, sleep disturbances were commonly reported among students, likely due to late-night phone use and exposure to blue light from screens, which affects melatonin production and disrupts sleep cycles.

The study underscores the urgent need for targeted interventions, awareness programs, and behavioral strategies to address mobile phone dependency among students. Since smartphone usage is deeply embedded in modern-day academic learning, a balanced approach is required to help students make responsible use of technology while minimizing the risks associated with excessive mobile phone addiction. Implementing

structured awareness campaigns, behavioral interventions, and university policies can help reduce nomophobia levels and encourage healthier digital habits among students.

Based on the study's findings, several interventions and preventive measures can be adopted to help students manage nomophobia and reduce excessive mobile phone dependence. These recommendations aim to strike a balance between technology use and mental well-being, ensuring that students can benefit from digital tools without experiencing negative consequences.

1. Digital Detox Programs

To help students regulate their screen time and develop healthier smartphone habits, institutions should introduce digital detox programs. These programs should focus on educating students about the harmful effects of excessive mobile phone use and encourage practical strategies to limit screen exposure. Activities such as: Designated screen-free hours during the day, Encouraging face-to-face social interactions, Promoting outdoor and physical activities, Mindfulness and meditation exercises.

By incorporating these strategies, students can gradually reduce their smartphone dependency and regain control over their time management. Digital detox programs should be integrated into the academic curriculum, ensuring that students receive continuous support and guidance on maintaining a balanced digital lifestyle.

2. Workshops on Nomophobia

Educational institutions should organize regular workshops and awareness programs to educate students about nomophobia, its symptoms, and its consequences. These workshops should focus on: Identifying the signs of nomophobia and understanding its psychological impact, Providing behavioral strategies to manage smartphone addiction, Encouraging responsible mobile phone use for academic purposes, Promoting a healthy balance between online and offline activities

Workshops can include interactive sessions, expert talks, case studies, and personal experience sharing, making students more aware of their own digital habits and helping them make informed choices about their smartphone use. Schools and colleges should also involve parents and educators in these workshops to ensure a collaborative approach toward addressing smartphone addiction among students.

3. University Policies on Mobile Phone Use

To reduce distractions and improve academic focus, colleges should introduce strict policies regarding mobile phone usage during lectures and study hours. Some of the key measures that can be implemented include: Restricting mobile phone use in classrooms and lecture halls to prevent distractions, Encouraging students to switch off their phones or keep them in silent mode during academic sessions, Providing designated areas where students can use their phones during breaks, Encouraging note-taking and study habits that do not rely on smartphones

By enforcing such policies, educational institutions can create an environment that promotes better concentration and learning efficiency. However, policies should be designed in a way that does not completely restrict access to technology, especially since smartphones are also used for academic research and communication with faculty. Instead, the goal should be to limit excessive or unnecessary phone usage during crucial learning periods.

4. Counseling Services for Students

Students experiencing anxiety, stress, or emotional distress due to excessive mobile phone use should be provided with mental health support and counseling services. Many students rely on their smartphones as a coping mechanism for stress, loneliness, or social anxiety, making it essential to offer alternative support systems. Counseling programs should: Help students recognize their smartphone addiction patterns, Offer personalized strategies to reduce screen time gradually, Provide mental health support for students facing anxiety or depression, Encourage students to develop alternative coping mechanisms such as engaging in hobbies, social interactions, or physical activities.

Counselors and psychologists should work closely with students to identify the underlying causes of smartphone dependency and offer personalized guidance on how to overcome excessive mobile phone use.

8.Implications for Future Research

As nomophobia continues to be a growing public health concern, further research is needed to explore long-term effects and intervention strategies. Some of the key areas for future research include:

1. The Long-Term Effects of Nomophobia on Mental Health

Future studies should focus on the prolonged psychological and emotional effects of smartphone addiction. Researchers should examine how nomophobia contributes to chronic stress, anxiety disorders, and depression over an extended period. Longitudinal studies tracking students' digital habits, emotional well-being, and academic performance over several years would provide valuable insights into the long-term risks associated with excessive smartphone use.

2. Effective Intervention Strategies for Reducing Smartphone Addiction

While this study has identified the negative consequences of nomophobia, future research should focus on evaluating the effectiveness of different intervention methods. Studies should assess the impact of: Behavioral therapy programs for smartphone addiction, The role of digital well-being apps in monitoring and reducing screen time, The effectiveness of educational workshops in increasing awareness and behavioral change. By conducting experimental studies and comparative research, scholars can identify which intervention strategies are most effective in reducing smartphone dependency among adolescents.

3. Understanding the Role of Social Media in Nomophobia

Since social media platforms play a significant role in increasing smartphone addiction, further research should explore the psychological impact of social media dependency on students. Studies should examine how factors such as FOMO (Fear of Missing Out), social comparison, and digital validation contribute to increased smartphone dependency and anxiety levels.

4. Exploring the Gender Differences in Nomophobia

As previous studies (including this research) have shown that female students tend to exhibit higher levels of nomophobia, future research should investigate the underlying reasons for this gender-based difference. Understanding the psychosocial factors that make women more susceptible to smartphone addiction can help design gender-specific intervention programs.

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