



A Study to Assess the Level of Nomophobia among B.Sc. Nursing Students of a Selected Nursing College in Dehradun, Uttarakhand

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Abstract

Background: Nomophobia, or “no mobile phone phobia,” refers to the fear or anxiety experienced when individuals are unable to access or use their mobile phones. Although traditionally categorized under phobias, current evidence suggests it resembles an anxiety-related condition.

Objective: The objective of this study was to assess the level of nomophobia among B.Sc. Nursing students of a selected nursing college in Dehradun, Uttarakhand.

Methods: A quantitative research approach with a descriptive research design was adopted. The study was conducted at Doon Institute of Medical Sciences, Dehradun. A total of 220 B.Sc. Nursing students were selected using purposive sampling. Data were collected using a sociodemographic profile and the standardized nomophobia questionnaire (NMP-Q).

Results: The findings revealed that the mean NMP-Q score was 63.4 ± 18.2 . Nomophobia was prevalent among participants, with the majority experiencing mild (54.1%) and moderate (42.7%) levels. A small proportion (3.2%) reported severe nomophobia, whereas none were free from the condition.

Conclusion: The study concludes that nomophobia is a growing concern among nursing students, with all participants exhibiting some degree of nomophobia. Awareness programs addressing smartphone addiction and its psychological consequences are essential.

Keywords: Anxiety, nmp-qnomophobia questionnaire, nomophobia, nursing education, nursing students, smartphone addiction

INTRODUCTION

Smartphones have become an integral part of modern life, offering convenience, rapid communication, and instant access to information. Their advanced technological capabilities –

such as internet connectivity, social networking, gaming, and multimedia functions – have significantly contributed to their widespread global adoption. By 2019, nearly half of the world’s population owned a smartphone, primarily due to improved affordability and ease of use.^[1] This trend has continued to rise, with global smartphone usage increasing substantially in recent years.^[2] This widespread accessibility has contributed to increased dependence on smartphones, particularly among adolescents and young adults.

Many users perceive smartphones as an extension of themselves, influencing identity, behavior, lifestyle, and social relationships.^[3] Excessive smartphone use has been associated with various psychological concerns, including stress, anxiety, depression, sleep disturbances, and impaired

Date of Submission: 18-04-2026

Date of Revision: 06-05-2026

Date of Acceptance: 22-05-2026

Access this article online

Website: <https://innovationaljournals.com/index.php/ijns>

ISSN No: 2581-463X

DOI: 10.31690/ijns.2026.v011i02.007

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academic performance.^[4,5] Increasingly, individuals prefer virtual communication, as digital platforms provide a sense of anonymity and emotional comfort, which may contribute to problematic smartphone use and behavioral addiction.^[6]

The term nomophobia, derived from “no mobile phone phobia,” refers to the fear or anxiety experienced when individuals are unable to access or use their mobile phones. Although initially categorized under specific phobias, recent evidence suggests that nomophobia is more closely related to anxiety disorders due to its emotional and behavioral manifestations.^[7,8] Psychological factors such as low self-esteem, introversion, social anxiety, and panic disorders may increase vulnerability to nomophobic behaviors.^[9]

Nomophobia has been conceptualized into four dimensions: inability to communicate, loss of connectedness, inability to access information, and giving up convenience.^[7] Differentiating nomophobia from smartphone addiction or pre-existing anxiety disorders is challenging due to overlapping symptoms and behavioral patterns.

Globally, nomophobia shows a high prevalence among young adults. A systematic review reported that 24% of individuals experience mild nomophobia, 56% moderate, and 17% severe.^[10] Recent studies indicate a rising trend, particularly among university students, with moderate-to-severe levels becoming increasingly common.^[6,11] In India, nearly 9 out of 10 individuals under 30 years of age exhibit symptoms of nomophobia.^[12]

Nomophobia among nursing students is of particular concern, as excessive smartphone use during academic and clinical hours may compromise patient care, increase the likelihood of errors, and reduce professional focus.^[13] Furthermore, high smartphone dependency has been associated with insomnia, reduced academic performance, and increased risk of anxiety and depression among students.^[4,14] Given the demanding nature of nursing education, such behavioral dependencies may negatively affect both learning outcomes and clinical competence.

Need for the study

Young smartphone users are increasingly demonstrating signs of nomophobia, driven by continuous engagement in messaging, social networking, gaming, and multimedia consumption.^[15] Over recent years, the prevalence of nomophobia has increased significantly, largely due to growing smartphone dependency and digital engagement.^[11]

Studies have shown that smartphone usage among college students has increased considerably, with most students relying on mobile devices for both academic and personal purposes.^[6,16] In addition, a large proportion of students use smartphones during classroom sessions, leading to reduced attention, academic distraction, and decreased learning efficiency.^[5]

Nomophobia is particularly prevalent among individuals aged 18–24 years, a group that includes the majority of college students, due to their continuous need for social interaction

and connectivity.^[17] In India, the increasing penetration of smartphones and internet accessibility has made nomophobia an emerging public health concern, especially among young adults.^[12]

Despite the growing body of literature, limited research has been conducted specifically among nursing students in Uttarakhand. Nursing students are required to maintain high levels of concentration, clinical judgment, and professional responsibility. Excessive smartphone use may interfere with these competencies, potentially affecting patient safety, academic performance, and overall well-being.

Therefore, assessing the level of nomophobia among B.Sc. Nursing students is essential to understand the magnitude of the problem and to develop appropriate interventions. The findings of this study may help in designing awareness programs and strategies to promote responsible smartphone use and improve academic and clinical performance among nursing students.

METHODS

Research approach

A research approach refers to the systematic plan used to address the aims of a study. The present investigation adopted a quantitative research approach, as it focused on measuring and analyzing the level of nomophobia using numerical data.

Research design

A research design provides the overall structure or blueprint that guides data collection, measurement, and analysis. The present study employed a descriptive research design, as the aim was to assess the level of nomophobia among B.Sc. Nursing students without manipulating any variables.

Variable of the study

Based on the study objective, the primary research variable was:

- Level of nomophobia

Research setting

The study was conducted at the Doon Institute of Medical Sciences, Dehradun, Uttarakhand, a nursing education institution providing access to the target population.

Population

Population refers to the entire group of individuals from which a sample is drawn.

Target population

All B.Sc. Nursing students in Dehradun, Uttarakhand.

Accessible population

B.Sc. Nursing students enrolled at the Doon Institute of Medical Sciences, Dehradun.

Sample and sample size

The sample consisted of 220 B.Sc. Nursing students from the selected nursing college in Dehradun. This sample size was considered adequate to meet the study objectives.

Sampling technique

A purposive sampling technique was used to select participants who met the inclusion criteria and were available and willing to participate in the study.

Criteria for sample selection

Inclusion criteria

Participants who:

1. Were willing to participate in the study
2. Were B.Sc. Nursing students of the selected nursing college in Dehradun
3. Were present at the time of data collection
4. Could understand both Hindi and English.

Exclusion criteria

Participants who:

- Were enrolled in courses other than B.Sc. Nursing.

Description of tools

Two tools were used for data collection:

Tool 1: Sociodemographic profile

Collected information on the following variables: Age, gender, area of residence, annual family income, marital status, current year of study, current place of stay, frequency of changing or purchasing smartphones, duration of mobile phone use per day (in hours), and frequency of checking mobile phones.

Tool 2: Nomophobia questionnaire (NMP-Q)

The tool, developed by Yildirim and Correia,^[7] is a standardized 20-item self-reported questionnaire used to assess the level of nomophobia. Each item is rated on a Likert scale, and higher scores indicate a higher level of nomophobia.

Content validity

To establish content validity, the tools, along with the study objectives and criteria checklist, were submitted to experts in nursing and research methodology. Experts evaluated the tools for relevance, adequacy, clarity, accuracy, and organization. Necessary modifications were incorporated based on their suggestions under the guidance of the research supervisor.

Language validity

The tools were reviewed by language experts to ensure clarity, grammar accuracy, and comprehensibility in English.

Reliability

Reliability refers to the consistency and dependability of an instrument. The test–retest method was used to determine the reliability of the NMP-Q, and the tool was found to be reliable for use in the study.

Pre-testing

Ethical approval was taken. After obtaining ethical clearance, pre-testing of the tool was conducted on 10 B.Sc. Nursing students who met the inclusion criteria. The purpose was to check the clarity of items and estimate the time required for data collection. The tool was found to be clear and easily

understandable, and the average time required for completion was 10–15 min.

Pilot study

A pilot study was conducted on 10% of the total sample size to assess feasibility and identify any practical issues in data collection. The findings indicated that the study design and tools were appropriate for the main study.

Data collection procedure

The student researcher introduced themselves, established rapport, and explained the purpose of the study to the participants. Written informed consent was obtained from all students. After receiving consent, the tool was distributed to the B.Sc. Nursing students who met the inclusion criteria. Data were collected using a sociodemographic data sheet and the NMP-Q.

Data analysis

Data were entered into a master sheet in Microsoft Excel based on participants' responses. Descriptive statistics (frequency, percentage, and mean) were used to describe the sociodemographic variables and the level of risk for nomophobia among the nursing students.

RESULTS

The findings are presented under two major sections:

- Section A: Sociodemographic characteristics of participants
- Section B: Level of nomophobia assessed using the NMP-Q.

Section A: Sociodemographic characteristics

Interpretation of Table 1

As shown in Table 1, more than half of the participants were aged 18–20 years (51.4%), followed by (31.4%) in the 20–22 year age group. A majority were female (55.9%) and from urban areas (75.9%). Nearly (40%) reported an annual family income of more than INR 30,001. Most participants were unmarried (97.3%).

Majority of the participants were residing at home (61.4%), while (38.6%) were staying in hostels. Many participants reported changing or upgrading their smartphones every 2 years (39.1%). A substantial proportion of the participants used their mobile phones for less than 10 hours per day (67.7%), while (27.7%) reported using them for 11–20 hours daily. Only a very small proportion of the participants (4.6%) used their mobile phones for more than 20 hours per day.

Section B: Level of nomophobia

Interpretation of Table 2

As shown in Table 2, mild nomophobia was the most common among the participants (54.1%), followed by moderate nomophobia (42.7%). A small proportion (3.2%) experienced severe nomophobia, whereas none showed absence of nomophobia. These results highlight that nomophobia is

Table 1: Sociodemographic characteristics of participants (n=220)

Characteristic	Category	Frequency	Percentage
Age	18–20	113	51.4
	20–22	69	31.4
	22–24	31	14.1
	24–26	7	3.1
Gender	Male	97	44.1
	Female	123	55.9
Area of residence	Urban	167	75.9
	Rural	53	24.1
Annual family income (INR)	<10,000	21	9.5
	10,001–20,000	27	12.3
	20,001–30,000	84	38.2
	>30,001	88	40.0
Marital status	Unmarried	214	97.3
	Married	6	2.7
Current year/ semester of nursing	1 st Semester	63	28.6
	2 nd Semester	50	22.7
	4 th Semester	50	22.7
	3 rd Year	57	26
Current place of staying	Home	135	61.4
	Hostel	85	38.6
Frequency of changing smartphones	<1 year	45	20.5
	2 years	86	39.1
	3 years	73	33.2
	>5 years	16	7.2
Mobile phone usage per day	<10 h	149	67.7
	11–20 h	61	27.7
	>20 h	10	4.6
Frequency of checking the mobile	Every 5 min	12	5.5
	Every 10 min	43	19.5
	Every 20 min	64	29.1
	More than 20 min	101	45.9
Checking mobile in bed after lights off	Yes	185	84.1
	No	35	15.9

Table 2: Level of nomophobia (n=220)

NMP-Q score	Nomophobia level	Frequency	Percentage
0–20	Absent	0	0.0
21–59	Mild	119	54.1
60–100	Moderate	94	42.7
101–140	Severe	7	3.2

NMP-Q: Nomophobia questionnaire

prevalent among nursing students, with varying levels of severity.

As illustrated in Figure 1, most participants (54.1%) exhibited mild nomophobia, followed by (42.7%) who demonstrated moderate nomophobia. A small proportion (3.2%) reported severe nomophobia, indicating that some level of nomophobia was present among all participants.

DISCUSSION

The findings revealed that 54.1% of participants experienced mild nomophobia, followed by 42.7% with moderate nomophobia, and 3.2% with severe nomophobia. This indicates that all participants had some degree of nomophobia, highlighting its pervasive presence among nursing students.

These results are consistent with the study conducted by Anand, which reported that more than 50% of nursing students

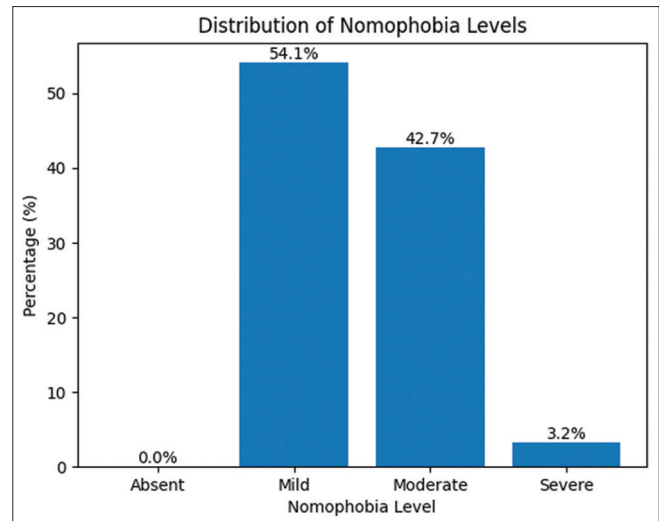


Figure 1: Bar diagram showing the level of nomophobia among participants

had mild nomophobia, whereas a small proportion exhibited severe levels. Similar patterns have also been observed in national and international studies where university students commonly report mild-to-moderate nomophobia, attributed to high dependence on smartphones for academic communication, social interaction, and entertainment.

The presence of severe nomophobia in a subset of students underscores the risk of psychological and behavioral implications, including anxiety, sleep disturbances, academic distraction, and reduced productivity. Given the demanding nature of nursing education, such levels of device dependency may hinder effective learning and mental well-being.

Nursing implications

Nursing education

1. Educators should develop and implement structured awareness programs addressing the harmful effects of excessive smartphone use
2. Classroom teaching strategies should incorporate more interactive and practical activities to minimize distractions caused by mobile phones
3. Information booklets and educational materials distributed during the study may serve as helpful tools to enhance students' understanding of responsible smartphone practices.

Nursing practice

Nurses play a pivotal role in promoting healthy lifestyle behaviors. As key members of the healthcare team, they must educate adolescents and young adults on responsible smartphone usage, its potential psychological and physical consequences, and strategies to reduce overdependence.

Nursing research

The findings provide a basis for future studies aimed at understanding nomophobia and its determinants among diverse populations. There is scope for interventional

research, including experimental studies, to evaluate strategies to reduce nomophobia and promote digital well-being among students.

Limitations

1. The study was limited to B.Sc. Nursing students, which reduces generalizability to other academic disciplines
2. Certain extraneous variables, such as personal psychological factors and academic stress, were not controlled by the researcher.

CONCLUSION

The study concluded that nomophobia is prevalent among B.Sc. Nursing students, with most participants experiencing mild to moderate levels of nomophobia. Frequent smartphone usage and regular mobile checking habits indicated a high level of dependence on smartphones among students. Excessive smartphone use may negatively affect academic performance, concentration, sleep, and mental well-being. Therefore, awareness programs and strategies promoting responsible smartphone use are essential to reduce nomophobia and encourage healthy digital habits among nursing students.

Recommendations

Based on the study findings, the following recommendations are made:

1. Similar studies may be conducted with a larger sample size to improve generalizability
2. Experimental studies may be undertaken to assess the effectiveness of interventions aimed at reducing nomophobia and improving awareness regarding smartphone use
3. Comparative studies may be conducted between students from urban and rural backgrounds to explore geographical differences in smartphone dependency.

ACKNOWLEDGMENT

The author expresses sincere gratitude to the management and administration of Doon Institute of Medical Sciences, Dehradun, for granting permission to conduct the study. Special thanks are extended to all B.Sc. Nursing students who participated in the study for their cooperation and valuable time.

CONFLICT OF INTEREST

None declared.

FUNDING

Self-funded.

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How to cite this article: Singh S. A Study to Assess the Level of Nomophobia among B.Sc. Nursing Students of a Selected Nursing College in Dehradun, Uttarakhand. *Indian J Nurs Sci* 2026;11(2):28-32.