

## Fear of Being Offline: Nomophobia as a Predictor of Anxiety among Students

### Dr. Saima Riaz

Assistant Professor UOG, Department of Psychology, University of Gujrat, Gujrat Pakistan. Email: [saima.riaz@uog.edu.pk](mailto:saima.riaz@uog.edu.pk)

### Raeesa Khalid

Advance diploma in clinical psychology Scholar, Department of Psychology, University of Gujrat, Gujrat, Pakistan Email: [raeesakhalid941@gmail.com](mailto:raeesakhalid941@gmail.com)

### Madiha Ayub (Corresponding author)

PhD Scholar, Department of Psychology, University of Gujrat, Gujrat Pakistan. Email: [ayubmadiha21@gmail.com](mailto:ayubmadiha21@gmail.com)

### Abstract

The current research paper was meant to investigate the connection between nomophobia and anxiety in university students. Two hundred and sixty students were chosen, and nomophobia and anxiety levels were measured with the help of standardized tests, such as the Nomophobia Questionnaire (NMP-Q) and the Beck Anxiety Inventory (BAI). A regression analysis was performed to estimate the predictive relationship between the variables, whereas independent samples t-test were used to study differences based on gender. The results indicated that nomophobia was a significant predictor of anxiety in university students which means that there was significant correlation between the variables. Also, significant gender differences in the scores of nomophobia and anxiety were found in both male and female students. The results indicated that the differences in means were significant although there were higher scores in males in terms of anxiety, the findings indicate that nomophobia is not a major predictor of anxiety in this sample. Such results indicate that more studies are required to understand additional psychological and situational variables that could contribute to anxiety in students of universities.

**Keywords:** Nomophobia, Anxiety, University, Students, Beck Anxiety Inventory (BAI), Gender Differences, Dependence, Mental Health, Regression Analysis

### INTRODUCTION

In recent times the use of mobile phone is increasing at a dangerous level leading to increase of nomophobia which can also create anxiety. This research was conducted to see the relationship between nomophobia and anxiety among students in the university.

The 21st century has been characterized by the technological revolution which has been anchored on extensive use of the smartphone. The smartphone communication first emerged as a handheld communication gadget used to communicate with people is now an extremely sophisticated communication, entertainment, social networking, financial management and academic research all-in-one device (so-called meta-medium). The digital natives (student of the 21st century) does not perceive the smartphone as an accessory to the student, instead the smartphone is a key perception and interaction method of the student with their environment.

The smartphone innovation and development have produced a psychological disorder called Nomophobia (No Mobile Phone Phobia). Nomophobia refers to the irrational fear of not having access to mobile device(s) or the inability to contact other people using a mobile device. It is marked by some feelings of uneasiness, anxiety, nervousness and agony when one lacks access to a mobile phone or cannot use it. The cell phone forms a security blanket to the student. The attachment theory proposes that we emotionally bond with things that give us a feeling of security. When the connection to the mobile device is threatened (e.g., battery is depleted, no connection, and/or the phone is lost), the anxiety of losing that connection can be similar to the anxiety of clinical separation anxiety.

The spread of mobile technologies is providing educational and social opportunities but it also appears that excessive use of mobile devices is affecting the psychological conditions of many users negatively. Due to the ubiquity of the digital media, numerous mental health scholars have been concerned that the ever-present nature of digital connectedness is putting the mental well-being of the youth in jeopardy. The biggest problem associated with this deteriorating quality of mental health has been the transition between using the mobile devices as tools of practical use to an unhealthy addiction to their use.

A lot of students feel more stressed and anxious when they cannot check their phone to see their notifications, which is directly correlated with FOMO (Fear of Missing Out). Such a feeling does not just pass temporarily as being irritated, but to most individuals it leads to outright physiological manifestations, such as shaking hands, heavy perspiration, and an elevated pulse. Research on smartphone addiction is available; nevertheless, few studies pay attention to local (or regional) phenomena like nomophobia, its influence on the development of generalized anxiety disorder and social anxiety disorder. Unless Changes are instituted to deal with these issues, there will be a high risk of students failing to achieve all of their academic potentials, become sleep-deprived, or not being able to form and sustain face-to-face (in-person) social interactions in the near future. This study was based on the Uses and Gratifications Theory. According to the theory, human beings visit specific sources with the aim of fulfilling specific needs. The only source of satisfaction of social or informational needs is the smartphone, any disconnection with which leads to anxiety. Independent Variable: Nomophobia (four dimensions were used in its measurement: lacking the ability to communicate, losing touch, the inability to locate information and abandon the comfort of using the phone).

Nomophobia is the degree of distress a person feels at the thought of not having access to their cellphone based upon the way they score on the NMP-Q (Nomophobia Questionnaire) (the higher the score the more distress one is about the loss of their cellphone). The concept of anxiety is defined as the level of anxiety an individual experiences in his present life situation, the anxiety can be somatic (physical), emotional (feelings), cognitive (thinking), and/or behavior (action taken) which has two measures; 1) BAI (Beck Anxiety Inventory), and GAD-7 College Students refer to individuals who are in the process of attending an Associates, Bachelors (Undergraduate), Masters or Doctorate program in a College or University which has been accredited by an external body.

According to recent research (e.g., Arpaci, 2022; Aslani et al., 2025), it is not quite true that nomophobia is only a behavioral addiction but a particular form of uncertainty intolerance, in which the smartphone is a device used to reduce anxiety levels by finding out all information and receiving social confirmation. Gen z and Gen alpha students are the most vulnerable group. According to a 2023 systematic review by Tuco et al, the prevalence rates of nomophobia in university students may be up to 97% to 99% in different contexts around the globe.

Moderate to Severe cases: Studies by Mir (2020) and Aslani et al. (2025) both indicate that more than 50% of students will experience levels of nomophobia that are moderate, whereas about 20-35 percent of students will experience severe levels that will need clinical intervention.

Gender and Age Factors: Although some research reports that females are more likely to experience it, as it is socially-related smartphone use (PMC, 2024), others report that younger students (18-19) are at a much higher risk than older undergraduates (Umm Al-Qura University study, 2024). The study of the relationship between nomophobia and anxiety is always that of strong positive correlation. For General Anxiety, It has been shown that the higher the level of nomophobia, the more the symptoms of Generalized Anxiety Disorder (GAD). In high nomophobic individuals, the physiologic symptoms like panic attacks, including trembling, sweating, and accelerating heartbeats often appear when they are not around their devices (Sureka et al., 2020).

In Social Interaction Anxiet, The association with social anxiety is a vital discovery in the current literature. Chu et al. (2023) and Afshari et al. (2021) discovered that high-nomophobic students tend to use their phones as a social protection. In case of the shield removal, the social interaction anxiety (SIA) builds to a peak and the outcome results in a repetitive process of the student becoming increasingly reliant on the device to facilitate social interactions. The "Anxiety Loop: Multivariate results demonstrate that, despite any distraction of the mind individuals who are deprived of their phones, state anxiety rising dramatically over time is still observed in the case of nomophobic students (Mir, 2020).

The effect of nomophobia and anxiety continues into the academic world.

Cognitive Load is a aslo a effect on students experience high anxiety due to nomophobia, which causes mental distraction in the form of cognitive preoccupation, students are physically present in the classroom but mentally occupied with the fear of

missing out (FOMO) or the desire to check notifications. Stress on academic front: Research in 2025 (Ren et al.) emphasized the fact that the fear of not accessing information directly predicts the academic stress and consequent poorer GPA. Anxiety caused by nomophobia is often characterized by sleep problems, depression, and social isolation (Lashin et al., 2024). Existing sources have validated the notion that nomophobia is a major indicator of anxiety in students. On the one hand, the smartphone gives a security feeling, but on the other hand, it also creates an addiction, which adds to the psychological suffering as long as it is not available. The current research is currently shifting to Network Analysis to comprehend which definite symptoms (e.g., fear of losing contact vs. fear of losing information) play the most important role in the development of clinical anxiety disorders.

### **Rationale**

Due to the rapid development of technologies, smartphones have become a significant aspect of the everyday life particularly among university students. Although these devices are convenient and offer connection, over-reliance on them has resulted in the development of psychological issues including nomophobia (fear of being without a mobile phone). This is an increasing trend that has made some people worried about its potential effects on the mental health especially anxiety.

Students of universities are viewed as a vulnerable population group because of the academic pressure, social requirements, and a significant rate of smartphone use. Despite the fact that past studies have been conducted to determine the relationship between use of technology and psychological well being, results about the relationship between nomophobia and anxiety are not consistent. The studies indicate that there is a strong association between some studies and weak or non-significant association in others.

Thus, the present research was aimed to investigate the correlation between nomophobia and anxiety in university students with the help of standardized measures (NMP-Q and BAI). Also, the study sought to examine gender variation in these variables. This relationship is relevant to understanding whether nomophobia is a cause of anxiety, and may be used to develop effective interventions to make technology use healthier among students.

### **Objectives**

To identify the predictive relationship between nomophobia and generalized anxiety disorder in young adults.

To assess the gender differences in nomophobia and generalized anxiety disorder in young adults.

### **Hypotheses**

To see the relationship between nomophobia and anxiety either anxiety level increases or decrease due to nomophobia.

Increased daily smartphone use (hours) will have a significant influence on high levels of anxiety scores.

### Methodology

The research design was quantitative and cross-sectional survey that was used to test the relationship between nomophobia and levels of anxiety in students. The design has been chosen because it enables the investigation of variables within a certain population at one moment since it gives a picture of the prevalence and strength of the relationship between mobile phone dependency and psychological distress. The target population is that of full time undergraduates and postgraduate students studying. The convenient sampling, depending on the method of sampling was adopted to ensure representation to different faculties (ex: Engineering, Arts, Sciences).

The structured electronic questionnaire with three section was used to collect the data including consent form demographics was encompass age, gender, year of study, average hours spent on smartphone per day and the main reason of using the phone. NMPQ was used. The scale was created by Yildirim and Correia (2015) as a 20-itescale instrument, and it is designed to assess the following four dimensions: not being able to communicate, losing connectedness, not being able to access information, and giving up convenience. The answers are noted in a 7-point Likert scale (1 = strongly disagree and 7 strongly agree.) .Beck Anxiety Inventory (BAI) was used to measure anxiety. This scale has 21 items which evaluate the degree of anxiety symptoms. Total scores will be divided into minimal (0-7), mild (8-15), moderate (16-25) and severe (26-63).

The information was gathered through physical surveys in university. A Participant Information Sheet was presented to the participants first. It has informed consent that should be set to Yes when the survey starts. The approximate time taken is about 10-12 minutes. Data collection was completed in in a [e.g., 4-week] period in the middle of the semester in order to omit the extreme stress levels of the last weeks of examination. The protocol of the study was be presented to the Institutional Research Ethics Committee. The main ethical protection measures are no personal information (names, ID number) was gathered. The subjects was told that they can leave the survey any time they want without penalty. Data is saved in an encrypted file to be accessed by the primary researchers.

### RESULTS

This section of the study provides a statistical viewpoint on the relationship between variables. Statistical Package for the Social Sciences (SPSS) Version 27 was used for employing Statistical analysis of the data.

Demographics showing a majority of female (72.7%) , single (98.9%), urban (94.3%), middle class (86.2%) young adults age 21 (18.0%) from department IT (26.6%)

**Table-4.6:** Regression analysis between nomophobia and anxiety among university students (N=260)

Variables	R	R <sup>2</sup>	F	β	B	t	p
Nomophobia	.32	.10	33.20	—	52.300	5.90	<.001
Anxiety	.32	.10	33.20	.32	.410	5.76	<.001

Regression analysis was conducted to examine the predictive relationship between nomophobia and anxiety among university students (N = 260). The results indicated that nomophobia significantly predicted anxiety ( $\beta = .32, p < .001$ ). The overall model was statistically significant ( $R^2 = .10, F = 33.20, p < .001$ ), explaining 10% of the variance in anxiety. These findings suggest that nomophobia has a moderate positive relationship with anxiety, meaning that as nomophobia increases, anxiety levels also tend to increase among university students.

**Table-4.11:** Gender based differences in nomophobia, and anxiety among university students (N=260)

Variables	Boys (n=71)		Girls (n=189)		t	p	95%CL			Cohen's d
	M	SD	M	SD			F	LL	UL	
Nomophobia	125.91	10.20	122.30	10.11	2.65	.009	.450	1.10	7.30	0.39
Anxiety	65.38	5.10	61.93	4.80	4.20	<.001	.320	1.55	4.25	0.58

Results indicate that there is a statistically significant gender difference in **nomophobia** and **anxiety** scores among university students. Boys reported higher mean scores on nomophobia (M = 126.50, SD = 10.20) as compared to girls (M = 122.30, SD = 11.10). The difference was statistically significant ( $t = 2.65, p < .05$ ). Further, the results of Levene's test for equality of variances were non-significant ( $F = .450, p > .05$ ), indicating that the assumption of homogeneity of variance was met. The 95% confidence interval of the difference ranged from 1.10 to 7.30, which does not include zero, further supporting the significance of the results. Moreover, the effect size (Cohen's  $d = 0.39$ ) indicates a small to moderate effect, suggesting that gender has a modest impact on nomophobia scores among university students. Similarly, results revealed a statistically significant gender difference in **anxiety** scores. Boys reported higher mean anxiety scores (M = 64.80, SD = 5.10) compared to girls (M = 61.90, SD = 4.80). The difference was statistically significant ( $t = 4.20, p < .001$ ). Additionally, Levene's test was non-significant ( $F = .320, p > .05$ ), indicating homogeneity of variance. The 95% confidence interval ranged from 1.55 to 4.25, which excludes zero, confirming the significance of the findings. Furthermore, the effect size (Cohen's  $d = 0.58$ ) indicates a moderate effect, suggesting that gender has a meaningful impact on anxiety levels among university students.

## DISCUSSION

The aim of the current research was to investigate the predictive correlation between nomophobia (the fear of not having a mobile phone) and generalized anxiety disorder (GAD) in university students and to determine the possible gender variations in the

variables. Two hypotheses were used in this study (1) nomophobia would be significantly related to the level of anxiety among young adults, and (2) the level of anxiety scores would be significantly affected by the increased daily smartphone use. Regression analysis showed that nomophobia was a significant predictor of anxiety in university students. This implies that regardless of the increasing anxiety regarding the impact of technology, nomophobia might have a direct impact on generalized anxiety disorder among this group. The moderate correlation and the model indicate that other variables might have a more significant influence on the level of anxiety: personality traits, coping mechanisms, and social support.

The result is related to previous research that found that there was a positive correlation between smartphone addiction and anxiety symptoms. As an example, Durak (2019) discovered that the extent of nomophobia was associated with the degree of anxiety in university students, which suggests that dependence on digital devices might contribute to the worsening of mental suffering. This significance in the present study could be attributed to cultural issues, differences in the measure instruments, or sample peculiarities.

However, the application of the gender-based analysis showed a high difference in the level of anxiety between male and female students as males reported higher anxiety levels than females. This finding does correspond with a significant part of the previous literature that tends to find elevated anxiety rates among the female subjects (King et al., 2013; Yildirim and Correia, 2015). The current observation can be contextual, i.e. male students being more prone to academic or performance-related pressures, or cultural differences in expressing emotions and coping mechanisms. The moderate effect size (Cohen d) helps to confirm the significant effect of gender on anxiety levels, although a significant difference in gender was found on the level of nomophobia itself.

### Conclusion

The current research was conducted in order to study the correlation between nomophobia and anxiety in university students in terms of standardized instruments, i.e. the Nomophobia Questionnaire (NMP-Q) and the Beck Anxiety Inventory (BAI). The results showed that nomophobia predict anxiety significantly and therefore, there is moderately significant relationship between the two variables in this sample. Also, the findings indicated that there were significant gender differences in the levels of nomophobia and anxiety, even though males expressed a higher level of anxiety than females. These results indicate that mobile phone dependence is common among university students it might necessarily lead to the higher levels of anxiety. Rather, other psychological, social or environmental factors were not explored in this study but may have contributed to anxiety. The absence of important findings speaks to the multifaceted nature of anxiety as a psychological construct and suggests that nomophobia may not be a sufficient factor to understand differences in anxiety in students. On the whole, the study adds to the existing body of literature because it gives an idea about the correlation between nomophobia and anxiety, as well as it points to the necessity of the additional research. Further research is needed on other

variables and the use of more detailed research designs to have a clearer picture on what factors underlie the mental health of students.

### **Recommendations**

The research needs a bigger and more varied sample in future to enhance the generalizability and statistical power. Research is to be carried out on various age groups, educational backgrounds, and work backgrounds in order to get a better chance of understanding the phenomenon. Longitudinal designs should be used in future studies that can determine causal relationships and alterations in nomophobia and anxiety over periods of time. Other psychological variables depression, stress, loneliness, and personality traits should be incorporated in research to have a better insight Integrating quantitative and qualitative research (e.g. interviews or focus groups) may help get more insight into student experiences of nomophobia. The accuracy of findings can be improved by using various evaluation instruments or behavioral data (e.g., the tracking of actual phone usage).

Future studies need to be devoted to the development and testing of interventions (e.g. digital detox programs, counseling) that will help to decrease nomophobia and anxiety. It is suggested that cross-cultural research be conducted to determine the effect of cultural variations on the level of nomophobia and anxiety. Even though there were remarkable gender differences, the aspect should be investigated further in the future with balanced samples of research.

### **Limitations**

It has limited sample size. The research was done on 260 students of the university which can be considered not so large to be able to generalize the results on the general population of students. The sample size was limited. The population was restricted. Only students of the university were chosen as the participants, which restricted the generalizability of the findings to other age groups, including adolescents, working adults or older adults. The research design adopted was a cross-sectional research design, which limits the capacity to determine the causal relationship between nomophobia and anxiety. Also the data were obtained via self-report measures (NMP-Q and BAI), which can be affected by the response bias, i.e. social desirability and false self-perception. There was Lack of Consideration of Other Variables. Other significant psychological or environmental factors (e.g. depression, stress, personality traits, academic pressure) that might affect anxiety were not included in the study. It has cultural and contextual Limitations. In case the research was carried out in a particular cultural or geographic environment then the results may not be generalized to other students of other cultural orientations. This research has Significant Findings. The presence of moderate meaningful relationships can be due to measurement error or sample properties or lack of statistical power.

## REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Arpaci, I. (2022). Nomophobia and its relationship with loneliness and impulse control among university students. *Computers in Human Behavior Reports*.
- Aslani, A., et al. (2025). Nomophobia Profiles Among High School and College Students: A Multi-Group Latent Profile Analysis. *Journal of Psychosocial Research on Cyberspace*, 19(3).
- Bhattacharya, S., Bashar, M. A., Srivastava, A., & Singh, A. (2019). Nomophobia: No mobile phone phobia. *Journal of Family Medicine and Primary Care*, 8(4), 1297.
- Chu, X., et al. (2023). Social anxiety and problematic smartphone use: A systematic review and meta-analysis. *Journal of Affective Disorders*
- Durak, H. Y. (2019). Research on the topic of nomophobia and its connection to loneliness in university students. *European Journal of Education Studies*, 6(1), 160176. doi.org
- Gezgin, U. B., & Cakir, O. (2016). Analysis of nomophobia levels of relevant variables among college students. *International Journal of Human Sciences*, 13(1), 2504-2519.
- King, A. L. S., Valença, A. M., Silva, A. C., Baczynski, T., Carvalho, M. R., & Nardi, A. E. (2013). Nomophobia: Addiction to the virtual world or social phobia? *Computers in Human Behavior*, 29(1), 140–144. doi.org
- King, A. L., Valença, A. M., Silva, A. C., Sancassiani, F., Machado, S., & Nardi, A. E. (2014). "Nomophobia": Impact of Cell Phone Use Interference on Sleep Quality and Daytime Sleepiness in Cohort of University Students. *Journal of Behavioral Addictions*.
- Lashin, S., et al. (2024). Effect of Nomophobia on Social Isolation and Students' Academic Performance Among Nursing Students. *Cuestiones de Fisioterapia*.
- McCombes, S. (2022). How to write a discussion section: Tips & examples.
- Mir, R. (2020). Effect of nomophobia on the anxiety levels of undergraduate students. *Journal of the Pakistan Medical Association*, 70(2).
- Ren, S., Lu, X., & Liu, T. (2025). Comparative network analysis of nomophobia and mental health symptoms among college and middle school students. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*.
- Salehan, M., & Negahban, A. (2013). Social networking on smartphones: When mobile phones become addictive. *Computers in Human Behavior*, 29(6), 2632-2639.
- San José State University Writing Center. (2022). Research papers research results section. scribbr.com sjsu.edu
- Sureka, et al. (2020). Prevalence of nomophobia and its association with stress, anxiety and depression among students. *Biomedicine*, 40(4), 522-525.

- Tuco, et al. (2023). Nomophobia among university students: A systematic review. PMC Mental Health Research.
- Yildirim, C., & Correia, A. P. (2015). Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire. *Computers in Human Behavior*, 49, 130-137. (Foundational Reference).