**Migration Letters**

Volume: 21, No: S3 (2024), pp. 178-191

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

www.migrationletters.com

# Prevalence And Impact Of Nomophobia On Academic Performance Among University Students: South Of Jordan

Sonia Mohammad kraishan *Corresponding author[1] , Saeda Hamdi Salem Aldwecat[2] , Basil H. Amarneh[3] , Mohammad Akram Al-majali[4]

## Abstract

*The modern world has become significantly dependent on mobile phones. Mobile phones were primarily created and launched to make life easier for people but excessive mobile phone use causes melancholy, anxiety, insomnia, and other mental health issues in people. Nomophobia is a pathological fear of not having a cell phone, not having a mobile network, or not having enough battery life or balance. There is no scientific evidence in Jordan regarding the phenomenon of nomophobia among university students and its impact of academic performance. Therefore, the current study aims to explore the prevalence and impact of nomophobia on academic performance among university students in south of Jordan. The study followed the descriptive survey method, and the finale sample is (327) students. Results of this study showed the prevalence of nomophobia among students in south Jordan was (86.85%), with (20.18%) having severe nomophobia, (35.47%) having moderate nomophobia, and (31.19%) having mild nomophobia. The present study concluded that the highest level of nomophobia was observed among students with low academic performance in terms of cumulative GPA, absences during last sem[1]ester, and hours of studying per day. The study probably offers suggestions for tactics and interventions to deal with university students' fear of nomophobia. These suggestions might be made to mental health providers, legislators, and educational establishments.*

***Keywords:*** *Nomophobia, Academic Performance, Universities, Jordan, NMP-Q.*

## Introduction

Since their widespread introduction in the 1990s, mobile phones have become an indispensable part of everyday life. These days, they have evolved from a luxury item to a necessity. A new chapter in the study of smartphones' effects on socioemotional well-being has begun as a result of their advancement in technology (Morales Rodríguez et al, 2020). Because of all the benefits it offers, the cell phone appears to have evolved in recent years from a status symbol to a need. Owing to its many benefits, mobile phones are becoming a popular option for both individuals and businesses. In addition to offering many benefits, using a phone excessively can cause a variety of issues. It can lead to a variety of social, medical, and psychological disorders, including car accidents, electromagnetic field radiation damage, and anxiety brought on by the fear of not being able to use new technology. Numerous research has demonstrated a link between low self-sufficiency,

[1]*Lecturer Master of Science in Nursing / Community Health Nursing Faculty of Nursing Al-Balqa Applied University / Aqaba University College - Aqaba, Jordan*
[2]*Master of Science in Nursing / Acute Adult Nursing Faculty of Nursing,*
[3]*MPH, PMH-CNS, PhD Professor Jordan University of Science and Technology Irbid, Jordan,*
[4]*Phd Department of Biological Sciences Faculty of Science The University of Jordan Amman, Jordan,*

loneliness, depressive symptoms, interpersonal anxiety, and excessive and addictive mobile phone use (Devi & Dutta, 2022; Kaszuba-Zwoińska et al, 2015). The modern world has become significantly dependent on mobile phones. Mobile phones were primarily created and launched to make life easier for people, therefore it is undoubtedly not a positive sign if those same phones are contributing to a decline in people's health. Numerous studies have demonstrated that excessive mobile phone use causes melancholy, anxiety, insomnia, and other mental health issues in people (Dias & Paulo Silva Cunha, 2018).

When it comes to utilizing smartphones, college students are more adept than other subpopulations. They rely on their smartphones for even the most basic everyday tasks and use them for extended periods of time (Alosaimi et al., 2016). Students use their smartphones excessively for social media, academic work, games, news watching, shopping, and information searching. The most popular apps for information, social interaction, academic work, and pleasure are search engines and social media (Adekunle et al., 2020).

Nomophobia, which derives from the words "no mobile phone" and "phobia," is a pathological fear of not having a cell phone, not having a mobile network, or not having enough battery life or balance (Muniraj, 2014). The common traits seen in nomophobia people are smartphone misuse, avoiding prohibited smartphone use locations, always carrying chargers, having a second smartphone, keeping phones close by when sleeping, using them late at night, and checking them as soon as you wake up (Bragazzi & Del Puente, 2014). The fear of missing out on messages, events, and social media posts is experienced by those who suffer from nomophobia. When people forget their smartphone, run out of battery life, or experience problems with the network connection, they get nervous. As a result, people frequently leave their phones on all the time. The obsessive fixation that homophobic have with their smartphones might seriously interfere with their day-to-day activities (Yildirim & Correia, 2015; Hasmawati et al., 2020). Overuse of mobile phones has an adverse effect on one's physical, mental, and emotional well-being. When a nomaphobic person loses their phone or runs out of battery or network, they can experience anxiety, agitation, and even psychological abnormalities. Because behavioral addictions are thought to be more similar to the obsessive-compulsive spectrum or to drug abuse, some experts believe that MPD should now be recognized as a separate diagnostic category (Bhattacharya et al., 2019; Kumari et al., 2021).

Among young individuals in particular, smartphones are very popular. Actually, it's thought that college students were among the first to use smartphones. It should be remembered that these devices are essential due to the demanding nature of both personal and academic lives (Işcan et al., 2021). The many functions and everyday chores that cellphones can perform are what make them so popular. Smartphones help individuals meet their fundamental requirements and offer many benefits, but they can also lead to a number of issues when used improperly (Lee, 2014). Nomophobia affects 6% to 73% of people in different demographics. And the prevalence of severe nomophobia among students in higher education ranges from 18.5% to 73.0% (Kaur & Sharma, 2015). The widespread usage of cellphones is expected to cause this prevalence to rise and turn into a serious issue (Bartwal & Nath, 2020). Adolescents and young adults—a demographic that includes university students—are more likely to have this issue because they have a higher prevalence of severe nomophobia. Poor academic performance and sleep disruptions are the main challenges related with this population's nomophobia since it can be linked to worry, stress, reliance, low self-esteem, social problems, and fear—which is followed by feelings of irritation and obsessive thinking. Moreover, increased reliance on mobile phones is brought on by low self-esteem, insecurity, and a lack of social skills while forming social interactions (Guin et al., 2020; Ismail et al., 2020).

The past ten years have seen a notable surge in interest in studying the relatively new issue of nomophobia. The incidence and severity of nomophobia were compared to a

number of sociodemographic traits, including age, gender, the amount of time spent on smartphones, how often they are used, and academic achievement (Shree et al., 2019). It has been noted that young adults seem to have nomophobia more frequently (Daei et al., 2019). It was reported that those between the ages of 20 and 24 are the most prone to nomophobia, possibly because they acquire new tools and technology more quickly than other age groups (Farooqui et al., 2018). There is evidence linking this syndrome to a number of sociodemographic variables, including age, gender, education level, and how frequently one uses a smartphone (Madhusudan et al., 2017; ÖZDEMİR et al., 2018).

Numerous studies have shown that nomophobia is more common in women than in men. Women have been found to have higher degrees of nomophobia, which suggests that more research on gender differences is necessary (Gezgin et al., 2018; Kanmani et al., 2017). In addition, individuals who spent many hours on their smartphones showed elevated levels of nomophobia (Bartwal & Nath, 2020). Tan et al. (2013) discovered a strong correlation between the use of mobile phones and feelings of loneliness among university students. A significant amount of research papers has examined the harms to health connected with mobile phone addiction. The degree of nomophobia was found to be significantly positively correlated with mobile phone usage habits in all of this research (Olivencia-Carrión et al., 2018; Farchakh et al., 2021). Furthermore, there has been prior research showing a positive relationship between students' overall nomophobia score and their smartphone use (Aguilera-Manrique et al., 2018).

University students rely on their smartphones to avoid the most obvious everyday activities, which leads to them wasting a lot of time on them (Alosaimi et al., 2016). Studies have indicated that deficits in understanding or education regarding cellphones can lead to linked difficulties such as overexposure and inappropriate smartphone use. Similarly, excessive smartphone use among college students can lead to complete dependence and compulsive behaviors (Arpaci, 2019; Ahn & Jung, 2016). A diminished sense of volitional control, higher psychological exhaustion, and increased worry and interference are some other unfavorable effects. Furthermore, other research has documented the impact that excessive smartphone use has on students' academic performance and experiences (Parasuraman et al., 2017). Research conducted on university students has demonstrated that excessive smartphone use, particularly for social networking, watching movies, and playing games, severely wastes time and has a detrimental effect on academic achievement. As a result, students pay less attention, receive lower grades, and the number of university dropouts rises (Jesse, 2015). Policies aiming at reducing smartphone use should be enacted in order to boost academic accomplishment, as students' excessive use of cellphones can lead to nomophobia as they advance in their academic levels (Aldhahir et al., 2023). Research has demonstrated a connection between academic success and nomophobic behavior among students in higher education. Numerous writers agree that nomophobia is linked to poor academic performance and productivity (Ahmed et al., 2019). Furthermore, relying too much on smartphones impairs students' ability to concentrate in class, engage in practical activities, and ultimately achieve academic success (Rabiu et al., 2016). A person suffering from nomophobia may participate in social situations physically but not cognitively. Phone dependency can also cause problems at work if an individual can't resist checking their smartphone or answering calls while they're at work (Devi & Dutta, 2022). Students' use of smartphones affects not only their academic performance but also their overall health and social life (Parasuraman et al., 2017).

Research on the frequency and consequences of nomophobia in Jordan is scarce. For example, Aldalalah, (2020) determine the degree of nomophobia among Jordanian students and how it affected their feelings of psycho-loneliness. Naser et al. (2023) explore the prevalence of mobile phone dependence among university students in five Arab countries and its associated factors and Jordan one of them. To the best of our knowledge, Jordan has no scientific data supporting the occurrence of nomophobia among college

students or how it affects their academic achievement. Thus, the purpose of the current study was to investigate the incidence of nomophobia and its effects on university students' academic performance in the southern region of Jordan.

Through the results of this study, the researchers intend to provide guidelines for eliminating nomophobia behavior and recognize the symptoms of nomophobia. Examining this phenomenon could aid in determining how widespread it is among students in Jordan. The results could help instructors and administrators devise a preventive strategy to address possible issues and enhance the academic performance and overall health of their students.

## Methods

### Research Design

The study followed the descriptive survey method to reveal the prevalence and impact of nomophobia on academic performance among university students in south of Jordan, given the convenience of the survey method for the purposes of the study.

### Setting

This study was conducted at universities in South of Jordan, with students from selected high diploma, bachelor, and postgraduate degree in all colleges. These universities are Mutah University, Al-Hussein Bin Talal University, Tafila Technical University, Al-Balqa Applied University / Aqaba University College, from all academic levels.

### Population and Sample Size

Population in the study were university students who were willing to participate regardless of their field of study or level of education. It was completely voluntary to participate. Students of any gender who were older than eighteen were eligible to participate. None of the study participants' personal data was gathered. In addition to collecting personal data, the questionnaire tool inquired about the participants' usage habits of mobile phones and study hours. A total of (352) students made up the study's sample. Following data cleansing, the researchers discovered (327) samples.

### Sampling strategy

Participants in the study were selected from a convenience sample of qualified individuals. Social media (Facebook, Twitter, Snapchat, and Instagram) was used to reach the participants. The study sample was invited via a survey link. Before beginning the study, each participant provided their informed consent to be included. The invitation letter began with a clear statement of the survey's purpose and goals. The data was collected from July (2023) to September (2023). Participants had to be residents of one of the participating nations and be enrolled university students (18 years of age or older). The study excluded any participant who did not fulfill the inclusion criteria. The survey URL was re-posted once a week in order to improve response and make the survey available to everyone. Contributions were accepted only permitted after responding to every query on the online survey.

### Study Instrument

Three components of a self-report instrument were utilized to answer the research questions: (1) demographic data and duration of daily mobile use, (2) academic information, and (3) the Nomophobia Questionnaire (NMP-Q). The 20 items that make up the NMP-Q were developed and verified by Yildirim and Correia (2015). Each statement is graded on a seven-point Likert scale, with 1 denoting strongly disagree and 7 denoting strongly agree. A higher score on the NMP-Q indicates a higher degree of nomophobia.

The score ranges from 20 to 140. Nomophobia is absent with a score of 20, mild with a score of 21–60, moderate with a score of 60–99, and severe with a score of 100–140. Using Cronbach alpha, the reliability coefficient of the original scale was determined to be 0.95. And since the question was distributed in Arabic language, NMP-Q Arabic version was taken from Salih et al. (2023) study. Where they show that the NMPQ's Arabic version is a valid and reliable tool for assessing nomophobia in Jordanian university students.

**Statistical Analysis**

The Statistical Package for Social Sciences (SPSS software, Version 26) was used for data collection and analysis. Frequencies and percentages were used to report and display the categorical variables. Statistical significance was determined by applying the proper tests of significance and considering a p-value of less than 0.05 with a 95% confidence range.

**Ethical consideration**

All responses to the survey will remain anonymous since no personal information such as names, email addresses, phone numbers, or physical addresses were requested. This was done to protect the privacy and confidentiality of the participants. Additionally, a letter of information was added to the survey's first page, which contained clear information about the researchers and their affiliations, the goals of the study, the eligibility requirements for participation, the advantages and risks, privacy and confidentiality, data handling, and the contact information for any questions. In addition, participants were asked to provide electronic informed permission at the conclusion of the information letter as a prerequisite to doing the survey.

**Results**

**Participants Distribution**

The study participants' demographic profile is provided in Table (1).

**Table (1). Frequency analysis for the personal information (n=327)**

| Variable | | No. | Percent (%) |
|---|---|---|---|
| **Gender** | Male | 142 | 43.43 |
| | Female | 185 | 56.57 |
| **Age** | Less than 20 years | 112 | 34.25 |
| | 20 - 23 years | 167 | 51.07 |
| | More than 23 years | 48 | 14.68 |
| **Degree** | High diploma | 42 | 12.84 |
| | Bachelor's | 204 | 62.39 |
| | Master | 64 | 19.57 |
| | PhD | 17 | 5.20 |
| **University** | Mutah University | 95 | 29.05 |
| | Al-Hussein Bin Talal University | 116 | 35.47 |
| | Tafila Technical University | 62 | 18.96 |
| | Al-Balqa Applied University / Aqaba University College | 54 | 16.51 |
| **Academic year** | First year | 61 | 18.65 |
| | Second year | 77 | 23.55 |
| | Third year | 53 | 16.21 |

| | | | |
|---|---|---|---|
| | Fourth year | 55 | 16.82 |
| | Postgraduate | 81 | 24.77 |
| **Duration of daily mobile use** | Less than 2 hours | 38 | 11.62 |
| | 2-4 hours | 87 | 26.61 |
| | 4-6 hours | 105 | 32.11 |
| | More than 6 hours | 97 | 29.66 |

The findings revealed that (43.34%) of the study participants were male, meanwhile the female participants were (56.57%). In terms of the age of the sample, the results were categorized the sample into three age groups, more than half of the sample was aged between 20 - 23 years (51.07%) years old. And the group that less than 20 years old comes at the second rank with a percentage of (34.25%) and off course they also above (18) years old. The last percentage was (14.68%) for whom with more than (23) years old. Regarding the degree, (62.39%) of the participants were at a bachelor's degree, followed by (19.57) who studied a master's degree. The PhD students were constituting (5.2%) of the sample. As well, (35.47%) of the respondents were studied in Al-Hussein Bin Talal University, followed by (29.05%) studied in Mutah University. The results of the academic year showed about (23.55%) of the undergraduate students were in their second year. While the students who in their first year comes at the second rank with a percentage of (18.65%). As well, for the postgraduate students, they form (24.77%) from the study sample. Finally, for the duration of daily mobile use, (32.11%) were used it from (4) to (6) hours daily and (26.66%) used it of more than (6) hours. This mean that more than (60%) of the participants used mobile phone for more than (4) hours per day, which is a large percentage. As well, only (11.62%) of the participants used mobile phones for less than (2) hours daily.

**Table (2). Frequency analysis for the academic performance (n=327).**

| Variable | | No. | Percent (%) |
|---|---|---|---|
| **Cumulative GPA** | Satisfactory | 56 | 17.13 |
| | Good | 109 | 33.33 |
| | Very Good | 101 | 30.89 |
| | Excellent | 61 | 18.65 |
| **Absences during last semester** | No absence | 42 | 12.84 |
| | Less than 3 days | 112 | 34.25 |
| | 3-6 days | 132 | 40.37 |
| | More than 6 days | 41 | 12.54 |
| **Hours of studying per day** | Less than 2 hours | 83 | 25.38 |
| | 2-4 hours | 191 | 58.41 |
| | 4-6 hours | 43 | 13.15 |
| | More than 6 hours | 10 | 3.06 |

Three questions were directed to the students in the questionnaire to explore their academic performance as shown in Table (2). Regarding the cumulative GPA, the largest percentage of them have a "Good" average GPA (33.33%), followed by (30.89%) who have "Very Good" average GPA. The number of student absences is also an indicator of academic performance. The table shows that (40.37%) from students have between three to six absences during a semester, and (34.25%) of them have less than (3) absences during a semester. And only (12.84%) of them had no absences during the last semester. Finally, regarding the hours of studying per day, about (60%) of the students engaged in this

questionnaire study from (2) to (4) hours per day, followed by those who study less than two hours per day with a percentage of (25.38).

**The prevalence of nomophobia**

Table (3) shows that prevalence of nomophobia among students in south Jordan was 86.85%, with 20.18% having severe nomophobia, 35.47% having moderate nomophobia, and 31.19% having mild nomophobia, represented in Fig (1).

**Table (3). The distribution of the level of nomophobia among study sample**

| Level of Nomophobia | No. | % |
|---|---|---|
| Absence | 43 | 13.15 |
| Mild | 102 | 31.19 |
| Moderate | 116 | 35.47 |
| Severe | 66 | 20.18 |

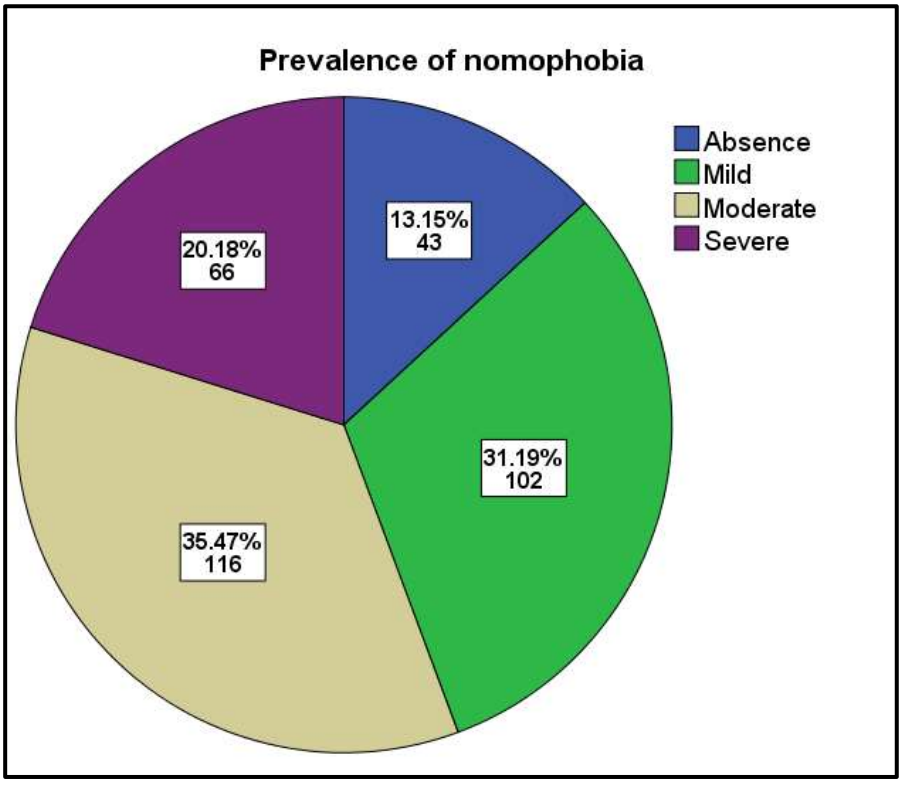


**Fig (1). The distribution of the level of nomophobia among study sample**

**Nomophobia and Sociodemographic Variables**

The nomophobia (NMP-Q) score across selected sociodemographic profiles is shown in Table (4). Participants who were female were more likely to have extreme nomophobia compared to male with no significant difference between these groups (p=0.086). The number of participants who had a severe nomophobia and their aged more than (23) years old was (26), and the Table shows that while the age increased the severity of nomophobia increase but this relationship is not significant (p=0.129). The study found that there is a statistically significant difference between nomophobia scores and degree (p=0.042). Regarding universities, there is no statistically significant difference between nomophobia scores and university in south Jordan (p=0.327). And the same finding was reached for the

academic year (p=0.208). Finally, table shows that while the duration of daily mobile use increased the severity of nomophobia increase and this relationship is significant (p=0.004).

**Table (4). Nomophobia scores based on the characteristics of the participating students.**

| Variable | | Absence (n=43) | Mild (n=102) | Moderate (n=116) | Severe (n=66) | P-value |
|---|---|---|---|---|---|---|
| **Gender** | Male | 27 | 40 | 43 | 32 | 0.086 |
| | Female | 16 | 62 | 73 | 34 | |
| **Age** | Less than 20 years | 22 | 43 | 39 | 8 | 0.129 |
| | 20 - 23 years | 12 | 51 | 72 | 32 | |
| | More than 23 years | 9 | 8 | 5 | 26 | |
| **Degree** | High diploma | 5 | 16 | 15 | 6 | **0.042** |
| | Bachelor's | 19 | 72 | 88 | 25 | |
| | Master | 10 | 11 | 9 | 34 | |
| | PhD | 9 | 3 | 4 | 1 | |
| **University** | Mutah University | 12 | 30 | 34 | 19 | 0.327 |
| | Al-Hussein Bin Talal University | 11 | 45 | 41 | 19 | |
| | Tafila Technical University | 10 | 16 | 23 | 13 | |
| | Al-Balqa Applied University / Aqaba University College | 10 | 11 | 18 | 15 | |
| **Academic year** | First year | 10 | 22 | 21 | 8 | 0.208 |
| | Second year | 5 | 21 | 35 | 16 | |
| | Third year | 9 | 16 | 13 | 15 | |
| | Fourth year | 11 | 14 | 17 | 13 | |
| | Postgraduate | 8 | 29 | 30 | 14 | |
| **Duration of daily mobile use** | Less than 2 hours | 6 | 12 | 16 | 4 | **0.004** |
| | 2-4 hours | 15 | 32 | 29 | 11 | |
| | 4-6 hours | 15 | 38 | 31 | 21 | |
| | More than 6 hours | 7 | 20 | 40 | 30 | |

**Nomophobia and Academic Performance**

The relationship between academic performance and nomophobia level is shown in Table 2. Students with highest GPA had the least percentage of severe nomophobia and the overall relationship between the cumulative GPA of the students and the degree of nomophobia is significant (p=0.001). Additionally, the higher the level of nomophobia, the more likely the student was to absence with a significant relationship (p=0.023). The results also found that there was significant difference between Hours of studying per day for students and nomophobia levels (p=0.005).

**Table (5). Nomophobia scores based on the Academic Performance of the participating students.**

| Variable | | Absence (n=43) | Mild (n=102) | Moderate (n=116) | Severe (n=66) | P-value |
|---|---|---|---|---|---|---|
| **Cumulative GPA** | Satisfactory | 7 | 7 | 26 | 16 | **0.001** |
| | Good | 6 | 24 | 46 | 33 | |
| | Very Good | 14 | 43 | 31 | 13 | |
| | Excellent | 16 | 28 | 13 | 4 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Absences during last semester** | No absence | 12 | 17 | 9 | 4 | **0.023** |
| | Less than 3 days | 15 | 43 | 36 | 18 | |
| | 3-6 days | 11 | 37 | 58 | 26 | |
| | More than 6 days | 5 | 5 | 13 | 18 | |
| **Hours of studying per day** | Less than 2 hours | 3 | 23 | 33 | 24 | **0.005** |
| | 2-4 hours | 19 | 63 | 77 | 32 | |
| | 4-6 hours | 16 | 14 | 4 | 9 | |
| | More than 6 hours | 5 | 2 | 2 | 1 | |

**Discussion**

Our everyday lives are made easier by smart phones, which offer various services that were previously time-consuming. In particular, smartphones have made a number of tasks easier, including connecting to the internet, doing online banking, reading and writing, booking reservations, and shopping. However, abuse and unchecked overuse may result in psychological issues known as nomophobia and raise the disorder's frequency. To the best of our knowledge, this is the first study examining the prevalence of nomophobia and how it relates to sociodemographic factors and students' academic achievement in south Jordanian universities.

Nomophobia is significant since it is linked to mental health issues such elevated stress, anxiety, irritability, insomnia, and depression (Ayar et al.,2018). It can also result in personality disorders, issues with self-worth, loneliness or social isolation, and dissatisfaction. Additionally, it may result in cognitive and motor impulsivity, which impairs an individual's ability to focus or execute tasks without conscious thought (Marthandappa et al., 2020). This may particularly impact college students, for whom there has been evidence in the past that anxiety, stress, and depression are positively correlated with levels of nomophobia. It may also negatively impact their interpersonal interactions and academic achievement, as higher levels of nomophobia have been linked to poorer academic performance.

The questionnaire of this study was distributed for students in four universities in the south of Jordan and (327) valid surveys were analyzed. (56.57%) of them were female, (51.07%) aged between (20) and (23) years, (62.39%) study a bachelor's degree, (35.47%) study in Al-Hussein Bin Talal University, (23.55%) in their second year for undergraduate students, (24.77%) postgraduate students, and (32.11%) used mobile phone for (4) to (6) hours daily. Regarding the academic performance, (33.33%) with a "Good" cumulative GPA, (40.37%) had a (3) to (6) absences during the last semester, and (58.41%) study for (2) to (4) hours daily.

These results unequivocally show that university students have a strong personal desire to use smartphones. In line with the findings of Lee (2014) and Alosaimi et al. (2016). According to Long et al. (2016), university students are regarded as the first smartphone owners. The use of mobile phones and the Internet has grown exponentially. Regardless of geographic location or economic standing, everyone now uses smartphones and the internet as their primary means of communication.

Results of this study showed the prevalence of nomophobia among students in south Jordan was (86.85%), with 20.18% having severe nomophobia, 35.47% having moderate nomophobia, and 31.19% having mild nomophobia. Similar to this, a recent review research found that university students had a high prevalence of nomophobia (Qutishat et al., 2020; Schwaiger & Tahir, 2020) and several studies found that students had a moderate level of nomophobia (Vagka et al., 2023; Gonçalves et al., 2020). Overall,

the majority of college and university students experience mild to severe nomophobia, as shown also by Devi & Dutta (2022). In general, nomophobia has been recognized as an uncontrollable behavioral disease by university students throughout numerous countries. The prevalence of nomophobia among university students has increased recently as a result of the global shift in most educational systems to online instruction, particularly during the COVID-19 epidemic (Aldhahir et al., 2023).

Regarding gender, female participants were more likely to exhibit severe nomophobia compared to male with no significant difference between these groups. This final result is consistent with earlier research that found female to be more susceptible to nomophobia (Essel et al., 2021; Farooqui et al., 2018). And regarding the non-significant difference this is the same result by Bartwal & Nath (2020) while Others find a statistically significant difference in nomophobia levels between the genders (Daei et al., 2019). This, however, contradicts the results of multiple other research that found that male suffer from nomophobia at a higher rate than female (Alwafi et al., 2022). As a result, there have been inconsistent reports regarding gender differences, and more study is required to resolve this.

Our study reported that while the age increased the severity of nomophobia increase but this relationship is not significant. This result is in line with Farooqui et al. (2018) and Hassan et al. (2019). This possibly because they acquire new tools and technology more quickly than other age groups and this may reflect an increasing magnitude among university students that grows with their age.

Findings of the present study showed that prevalence of severe nomophobia increase while the duration of daily mobile use increase and this relationship is significant, and this result is parallel to the finding of Long et al. (2016) study, where they discovered that people who use their phones for four hours or more a day have the highest levels of nomophobia. And in contrast to the results of Essel et al. (2021). One possible conclusion is that a growing number of young people in today's society access the Internet mostly through mobile phones, this may be because cellphones are so helpful for learning, particularly for online courses (Vagka et al., 2023).

The present study concluded that the highest level of nomophobia was observed among students with low academic performance in terms of cumulative GPA, absences during last semester, and hours of studying per day which is also reported in Durak (2019), Shree et al. (2019), and Parasuraman et al. (2017). However, the results of the present investigation differ from those of the Qutishat et al. (2020). They found a marginal association in the academic accomplishment of students with severe nomophobia, but this relationship did not explain any statistical significance. Their study did not find a significant correlation between academic achievement and nomophobia. This may be because cellphones are so helpful for learning, particularly for online courses. Students' perceived levels of efficiency are positively impacted by learning aids. Numerous research found that while academic success was positively correlated with life satisfaction, smartphone addiction risk was negatively correlated with it. Students who struggle academically could use their phones as a diversion or means of escape from their problems. Additionally, using a phone excessively for non-academic activities can make it difficult to focus when studying. Students who perform poorly academically may be more likely to become addicted to cell phone use.

**Contribution and Limitations**

The results of this study on nomophobia would provide policy makers in Jordan's higher education institutions with adequate knowledge about this population to enable the progression of educational policies and workable therapeutic options at various stages of prevention. Promoting good study habits, time management techniques, and creating a

supportive academic atmosphere are all important components of a complete strategy to address nomophobia and its effects on academic performance. Programs that raise knowledge about digital well-being and appropriate internet use can also help lessen pupils' fear of being homeless.

A voluntary survey was administered to students from four universities as part of a small-scale study, therefore, the sample may not be representative. As a result, the study's conclusions should be very carefully generalized. It is recommended that future prevalence studies report the sample calculation.

**References**

Adekunle, A. A., James, O., & Adeyemo, W. L. (2020). Health information seeking through social media and search engines by parents of children with orofacial cleft in Nigeria. The Cleft Palate-Craniofacial Journal, 57(4), 444-447.

Aguilera-Manrique, G., Márquez-Hernández, V. V., Alcaraz-Córdoba, T., Granados-Gámez, G., Gutiérrez-Puertas, V., & Gutiérrez-Puertas, L. (2018). The relationship between nomophobia and the distraction associated with smartphone use among nursing students in their clinical practicum. PloS one, 13(8), e0202953.

Ahmed, S., Pokhrel, N., Roy, S., & Samuel, A. J. (2019). Impact of nomophobia: A nondrug addiction among students of physiotherapy course using an online cross-sectional survey. Indian journal of psychiatry, 61(1), 77.

Ahn, J., & Jung, Y. (2016). The common sense of dependence on smartphone: A comparison between digital natives and digital immigrants. New media & society, 18(7), 1236-1256.

Aldalalah, O. (2020). Fear of Losing the Mobile Phone Nomophobia among Students and Its Impact of Psycho-Loneliness and Learning in the Light of Some Variables. International Journal: Interactive Mobile Technologies, 14(16), 70-85.

Aldhahir, A. M., Bintalib, H. M., Siraj, R. A., Alqahtani, J. S., Alqarni, O. A., Alqarni, A. A., ... & Alwafi, H. (2023). Prevalence of Nomophobia and Its Impact on Academic Performance Among Respiratory Therapy Students in Saudi Arabia. Psychology Research and Behavior Management, 877-884.

Alosaimi, F. D., Alyahya, H., Alshahwan, H., Al Mahyijari, N., & Shaik, S. A. (2016). Smartphone addiction among university students in Riyadh, Saudi Arabia. Saudi medical journal, 37(6), 675.

Alwafi, H., Naser, A. Y., Aldhahir, A. M., Fatani, A. I., Alharbi, R. A., Alharbi, K. G., ... & Alqurashi, A. (2022). Prevalence and predictors of nomophobia among the general population in two middle eastern countries. BMC psychiatry, 22(1), 1-9.

Arpaci, I. (2019). Culture and nomophobia: The role of vertical versus horizontal collectivism in predicting nomophobia. Information Development, 35(1), 96-106.

Ayar, D., Gerçeker, G. Ö., Özdemir, E. Z., & Bektas, M. (2018). The effect of problematic internet use, social appearance anxiety, and social media use on nursing students' nomophobia levels. CIN: Computers, Informatics, Nursing, 36(12), 589-595.

Bartwal, J., & Nath, B. (2020). Evaluation of nomophobia among medical students using smartphone in north India. Medical Journal Armed Forces India, 76(4), 451-455.

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.

Bragazzi, N. L., & Del Puente, G. (2014). A proposal for including nomophobia in the new DSM-V. Psychology research and behavior management, 155-160.

Daei, A., Ashrafi-Rizi, H., & Soleymani, M. R. (2019). Nomophobia and health hazards: Smartphone use and addiction among university students. International journal of preventive medicine, 10.

Devi, U., & Dutta, R. (2022). A review paper on prevalence of nomophobia among students and its impact on their academic achievement. Journal of Positive School Psychology, 6(3), 5397-5405.

Durak, H. Y. (2019). Investigation of nomophobia and smartphone addiction predictors among adolescents in Turkey: Demographic variables and academic performance. The Social Science Journal, 56(4), 492-517.

Essel, H. B., Vlachopoulos, D., & Tachie-Menson, A. (2021). The relationship between the nomophobic levels of higher education students in Ghana and academic achievement. Plos one, 16(6), e0252880.

Farchakh, Y., Hallit, R., Akel, M., Chalhoub, C., Hachem, M., Hallit, S., & Obeid, S. (2021). Nomophobia in Lebanon: Scale validation and association with psychological aspects. PLoS One, 16(4), e0249890.

Farooqui, I. A., Pore, P., & Gothankar, J. (2018). Nomophobia: an emerging issue in medical institutions?. Journal of Mental Health, 27(5), 438-441.

Gezgin, D. M., Cakir, O., & Yildirim, S. (2018). The relationship between levels of nomophobia prevalence and internet addiction among high school students: The factors influencing Nomophobia. International Journal of Research in Education and Science, 4(1), 215-225.

Gonçalves, S., Dias, P., & Correia, A. P. (2020). Nomophobia and lifestyle: Smartphone use and its relationship to psychopathologies. Computers in Human Behavior Reports, 2, 100025.

Guin, N. B., Sharma, S., Yadav, S., Patel, D., & Khatoon, S. (2020). Prevalence of Nomophobia and Effectiveness of Planned Teaching Program on Prevention and Management of Nomophobia among Undergraduate Students. Indian Journal of Public Health Research & Development, 11(9).

Hasmawati, F., Samiha, Y. T., Razzaq, A., & Anshari, M. (2020). Understanding nomophobia among digital natives: Characteristics and challenges. Journal of Critical Reviews, 7(13), 122-131.

Hassan, M. A., Cabfm, A. A., Al-Qahtani, F. S., Sbfm, S. A., Rishi, K. B., Fatima Riaz, P. D., ... & Mostafa, M. (2019). Prevalence and determinants of “no-mobile” phobia (nomophobia) among university students. The Medical Journal of Cairo University, 87(June), 2581-2586.

Işcan, G., Yildirim Baş, F., Özcan, Y., & Özdoğanci, C. (2021). Relationship between “nomophobia” and material addiction “cigarette” and factors affecting them. International Journal of Clinical Practice, 75(4), e13816.

Ismail, P. A., Patel, D., Patel, H., Patel, F., & Patel, D. (2020). A study to assess the level of nomophobia among students at Sumandeep Nursing College, Vadodara with a view to develop an information booklet.

Jesse, G. R. (2015). Smartphone and app usage among college students: Using smartphones effectively for social and educational needs. In Proceedings of the EDSIG Conference (No. 3424).

Kanmani, A., Bhavani, U., & Maragatham, R. S. (2017). Nomophobia–An insight into its psychological aspects in India. The International Journal of Indian Psychology, 4(2), 5-15.

Kaszuba-Zwoińska, J., Gremba, J., Gałdzińska-Calik, B., Wójcik-Piotrowicz, K., & Thor, P. (2015). Electromagnetic field induced biological effects in humans. Przegląd Lekarski, 72(11).

Kumar, R., Kumari, S., Bharti, P., & Sharma, D. (2021). Nomophobia: A rising concern among Indian students. Industrial Psychiatry Journal, 30(2), 230.

Lee, S. Y. (2014). Examining the factors that influence early adopters' smartphone adoption: The case of college students. Telematics and Informatics, 31(2), 308-318.

Long, J., Liu, T. Q., Liao, Y. H., Qi, C., He, H. Y., Chen, S. B., & Billieux, J. (2016). Prevalence and correlates of problematic smartphone use in a large random sample of Chinese undergraduates. BMC psychiatry, 16(1), 1-12.

Madhusudan, M., PSudarshan, B. P., Sanjay, T. V., Gopi, A., & Fernandes, S. D. (2017). Nomophobia and its determinants among the students of a medical college in Kerala. International Journal of Medical Science and Public Health, 6(6), 1046-1050.

Marthandappa, S. C., Sajjan, S. V., & Raghavendra, B. (2020). A Study of Prevalence and Determinants of Nomophobia (No Mobile Phobia) among Medical Students of Ballari: A Southern District of India. Indian Journal of Public Health Research & Development, 11(5).

Morales Rodríguez, F. M., Lozano, J. M. G., Linares Mingorance, P., & Pérez-Mármol, J. M. (2020). Influence of smartphone use on emotional, cognitive and educational dimensions in university students. Sustainability, 12(16), 6646.

Muniraj, C. (2014). A Study to Assess the Effectiveness of Psychoeducation on Reducing the Level of Nomophobia among the Adults in Sothupakkam at Kanchipuram District (Doctoral dissertation, Adhiparasakthi College of Nursing, Melmaruvathur).

Naser, A. Y., Alwafi, H., Itani, R., Alzayani, S., Qadus, S., Al-Rousan, R., ... & Bahlol, M. (2023). Nomophobia among university students in five Arab countries in the Middle East: prevalence and risk factors. BMC psychiatry, 23(1), 541.

Olivencia-Carrión, M. A., Ferri-García, R., del Mar Rueda, M., Jiménez-Torres, M. G., & López-Torrecillas, F. (2018). Temperament and characteristics related to nomophobia. Psychiatry Research, 266, 5-10.

ÖZDEMİR, B., ÇAKIR, Ö., & Hussain, I. (2018). Prevalence of Nomophobia among university students: A comparative study of Pakistani and Turkish undergraduate students. Eurasia Journal of Mathematics Science and Technology Education, 14(4).

Parasuraman, S., Sam, A. T., Yee, S. W. K., Chuon, B. L. C., & Ren, L. Y. (2017). Smartphone usage and increased risk of mobile phone addiction: A concurrent study. International journal of pharmaceutical investigation, 7(3), 125.

Qutishat, M., Lazarus, E. R., Razmy, A. M., & Packianathan, S. (2020). University students' nomophobia prevalence, sociodemographic factors and relationship with academic performance at a University in Oman. International Journal of Africa Nursing Sciences, 13, 100206.

Rabiu, H., Muhammed, A. I., Umaru, Y., & Ahmed, H. T. (2016). Impact of mobile phone usage on academic performance among secondary school students in Taraba State, Nigeria. European scientific journal, 12(1).

Salih, M. A., Khader, Y. S., Amarneh, B. H., Alyahya, M. S., & Al-Adwan, N. T. (2023). Psychometric Properties of the Arabic Version of the Nomophobia Questionnaire in Jordan. Arab Journal of Psychiatry, 34(1).

Schwaiger, E., & Tahir, R. (2020). Nomophobia and its predictors in undergraduate students of Lahore, Pakistan. Heliyon, 6(9).

Shree, C. S., Acharya, I., Acharya, J. P., & Sushma, D. (2019). A study on prevalence of Nomophobia in college students in Ranga Reddy. District, Telangana. Indian Journal of Preventive & Social Medicine, 50(3), 6-6.

Tan, Ç., Pamuk, M., & Dönder, A. (2013). Loneliness and mobile phone. Procedia-Social and Behavioral Sciences, 103, 606-611.

Vagka, E., Gnardellis, C., Lagiou, A., & Notara, V. (2023). Prevalence and Factors Related to Nomophobia: Arising Issues among Young Adults. European Journal of Investigation in Health, Psychology and Education, 13(8), 1467-1476.

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.