

The Degree of Fear of Losing the Phone (Nomophobia) among Visually Impaired Jordanian University Students

Islam Shukri Abdul Aziz Al-Momani¹, Faisal Khalif Al-Sharaa², Abrar Youssef Abu Anza³, Esra' Mohammad Mustafa Khamis⁴

Abstract

The study aimed to identify the degree of fear of losing the phone (Nomophobia) among students with visual impairment enrolled in Jordanian universities. In contrast, the study consisted of (300) male and female students with visual impairment enrolled in Jordanian public universities. To achieve the objectives of this study, the researchers used the nomophobia scale; the results showed that the prevalence of Nomophobia among Jordanian university students with visual impairment was high. The research found a substantial dependence on mobile phones, with an average score of 3.70, suggesting a high level of anxiety regarding the potential loss of phone connectivity. Anxiety feelings were recorded when people's ability to communicate with loved ones was interrupted; the highest reported score was 4.40. When looking at gender, academic year, and degree, there were noticeable variances. The average Nomophobia score was 3.98 for females and 4.00 for males; the most significant levels were seen among first-year students. Students with visual impairments may be more or less dependent on mobile technology, depending on their level of education; students with a diploma or less had the most significant levels of Nomophobia (average score: 3.97).

Keywords: *Phobia of Losing the Phone, Nomophobia, Visual Impairment.*

Introduction

Our current era is characterized by rapid technical progress, especially in communications and the Internet. This includes the development of mobile phones and smartphones, which have become indispensable tools in daily life (Leo'n-Meji'a, 2021). The presence of intelligent, flexible, and easy-to-use applications has helped spread smartphones among members of society of all ages and characteristics.

University students are one of the age groups that most use smartphones because many features meet the needs of these students and help them communicate and access information (Sosa-Delgado et al., 2023). However, excessive use of smartphones strongly impacts human behavior and physical and psychological health (Yilmaz et al., 2023). Studies such as (Samaha & Hawi, 2016; Wang et al., 2015) indicate that excessive use of smartphones leads to problems with muscles, bones, eyes, and mental health, which may lead to poor quality of life and constitute a burden on both individuals and society in terms of various diseases, low productivity, and high economic costs (Swar & Hameed, 2017). In addition, Nomophobia negatively affects personality, self-esteem, high levels of anxiety and stress, low academic performance, and physical and mental health problems. Therefore, we face a health problem that negatively affects humans, causing psychological problems and physical and behavioral changes (Rodríguez-García et al., 2020). Lee (2014) confirmed that smartphones are of broad interest to university students and are considered one of the groups that deal with them early. University students commonly use it because of its ability to meet the needs and desires of these students, but it causes some psychological problems associated with its use. The current time is witnessing an increase in the number of smartphone users, spending much money to acquire and own new versions of it, being unable to do without it, being busy thinking about it, and neglecting many tasks due to being preoccupied with it.

A concept to express the abnormal state of attachment and excessive smartphone use has been termed Nomophobia, or the pathological fear of losing the smartphone. Nomophobia is an abbreviation for (No-

¹ Department of Basic Sciences, Zarqa University College - Al-Balqa Applied University, Email: islam.almomani@bau.edu.jo.

² Department of Basic Sciences, Zarqa University College, Al-Balqa Applied University, Email: faisal_shr@Bau.edu.jo.

³ Department of Basic Sciences, Zarqa University College - Al-Balqa Applied University, Email: Abrar.anzeh@bau.edu.jo.

⁴ Department of Basic Sciences, Zarqa University College - Al-Balqa Applied University, Email: esraa.khamis@bau.edu.jo

Mobile-Phone-Phobia), which may lead the individual to feel anxious, isolated, and constantly checking the phone for fear of not being able to communicate with others (Yildirim et al., 2016).

Nomophobia is a disorder that results from excessive use of a smartphone. People with this disorder tend to check the various notifications they receive via the smartphone frequently, which prevents them from paying attention to the tasks required of them in daily life because they fear losing contact and communication with others or not being able to access information (Lee et al., 2018). Yildirim & Correia (2015) indicated that several factors lead to Nomophobia, including the availability of Internet connectivity on smartphones and the ability to access various social networking sites and other applications and instant notifications, depriving a person of them leads to increased levels of anxiety and tension.

Young people and adolescents are among the groups most targeted by Nomophobia due to their extensive use of various applications on smartphones, which are considered a tool for expressing and sharing what is on their mind through pictures, video clips, etc., which causes them to check their phones frequently (Lee et al., 2018). The Internet can provide opportunities for people with disabilities to enhance their independence, access electronic services such as electronic banking and online shopping, and communicate with their family and friends via email or video calls. Through these ways, they can significantly improve their daily lives (Duplaga, 2017).

In recent years, with the global increase in smartphone use, studies have been continuously conducted on the relationship between this use and emotional risk behaviors, such as depression, anxiety, and suicide-related behaviors (Twenge et al., 2018). Previous research on people with disabilities has confirmed that digital use affects life satisfaction and satisfaction with policies (Hwang, 2019).

Initially, people with visual impairments could not use mobile phones for purposes other than making calls. However, with the emergence of the iPhone from Apple in 2009 and the improvement of its services and applications, such as the voiceover function, people with visual impairment have been able to expand their mobile phone use beyond simply making phone calls. However, studies on smartphone use among people with visual impairment have not been conducted enough. Therefore, it is necessary to investigate the impact of smartphone use on the lives of people with visual impairment (Park, 2021).

On the other hand, the increased dependence on mobile phones and the use of the Internet in our daily lives has caused an increase in this dependence on devices and, thus, addiction to their use. Unwise use of it may lead to a phobia of losing the phone, which manifests itself in the form of anxiety, changes in the respiratory system, trembling, sweating, unjustified emotions, confusion, and tachycardia (Bhattacharya et al., 2019). People with disabilities are not considered an exception, as unwise use of these devices may lead to addiction and thus to their fear of losing the phone (Awed & Hammad, 2022).

Investigating Nomophobia, or the dread of misplacing one's phone, among visually impaired Jordanian university students is an essential step toward solving this pressing problem. The significance of this study rests in the fact that it targets a susceptible demographic: visually impaired students, who may rely mainly on cell phones for academics, navigation, and communication. The study provides insight into the social and psychological difficulties these students encounter as a result of their reliance on smartphones by determining the frequency of Nomophobia and the variables that contribute to it. The results have important implications for mental health practitioners, lawmakers, and educators who are working to mitigate the psychological effects of excessive smartphone use among visually impaired kids.

Research like this highlights the need to develop better learning methodologies for kids with visual impairments that include appropriate technology use. Because cell phones are widely used in school and society, students must be taught digital literacy and good technology habits. Maintaining mental health requires learning to control phone use without acquiring psychological dependencies like Nomophobia. Educational programs and support services can use the findings of this research to help students maintain a healthy balance when using their smartphones, which is good for their mental and academic health.

The Study Problem

Given the vital role that smartphones play among university students with visual impairment and that they are therefore at risk of exposure to Nomophobia, we need to increase understanding of this problem among university students with visual impairment and derive appropriate practice insights to protect them from the adverse effects of excessive smartphone use. Furthermore, despite recent research interest in Nomophobia among university students and youth around the world, this phenomenon has not yet been studied among university students with visual impairment in the Arab world. Therefore, the problem of the current study is an attempt to investigate the degree of fear of losing the phone (Nomophobia) among Jordanian university students with visual impairment. This emerges from the reality of the field survey conducted by the researchers on a sample of Jordanian university students. Based on the data presented previously, the current study seeks to answer the following questions:

The first question: What is the degree of prevalence of the fear of losing the phone (Nomophobia) among Jordanian university students with visual impairment?

The second question: Are there statistically significant differences ($\alpha = 0.05$) in the degree of Nomophobia among Jordanian university students with visual impairment due to the variables of gender, academic year, and academic degree?

The Importance of The Study

The theoretical importance of this study lies in its handling of a current issue that will provide a theoretical framework to benefit teachers, parents, and researchers to observe the Phobia of losing the phone among an important group in society, namely students with visual impairment, and shed light on the experiences and pressures they are exposed to. The practical importance of this study lies in helping develop the procedures and methods that must be followed for the wise use of smartphones, encouraging students to take the right direction through preventive measures, and developing some remedial and guidance plans.

Procedural Definitions

Nomophobia: These are feelings resulting from excessive dependence on smartphones. They are represented by anxiety and tension when away from the smartphone due to a dead battery charge, a network outage, or an inability to access the Internet, which leads to a loss of communication with others (King et al., 2010).

It is known procedurally as the score obtained by the subject on the nomophobia scale used in this study.

Visual Disability

Blind students: Students who have a complete loss of vision. From an educational point of view, a blind student is someone who has lost the total ability to see or whose visual remains cannot read and write even after using visual aids, which requires him to use the sense of touch to learn to read and write in Braille (Mboshi, 2018).

Visually impaired students: Students who have partial vision loss. From an educational point of view, a visually impaired student uses his sight to read and write, but with visual aids such as (glasses, telescope, font enlargement) (Mboshi, 2018).

In this study, students with visual disabilities are procedurally defined as blind and visually impaired students enrolled in Jordanian universities in the first semester of 2023-2024.

The Limits of The Study

The possibility of generalizing the current study's results is determined according to several conditions: the demographic and academic characteristics of the study sample members, who were Jordanian university students with visual impairment who were found to suffer from the Phobia of losing their phones (Nomophobia).

The psychometric properties of the tools used in the current study during 2023-2024 also determine the possibility of generalizing the results.

Previous Studies

Abukhanova et al. (2024) conducted a study aimed to determine if undergraduates' levels of anxiety and depression moderate the connection between their Nomophobia and their academic performance. This survey utilized a quantitative cross-sectional design.

A total of 307 first-year college students had their levels of phobias, anxiety, and depression assessed using reliable self-report instruments. Participants' grade point averages served as an indicator of their learning performance. The hypotheses were tested through the use of mediation analysis and correlation analysis. Based on the results of the Pearson correlation analysis and the multiple parallel mediation modeling, it appears that anxiety is a significant factor in the relationship between Nomophobia and poor academic performance among college students. No substantial mediation effect was observed for depression.

Lazarus et al.'s (2024) study fills a critical need in the field by being the first to investigate Nomophobia in Afghanistan with the Nomophobia Questionnaire (NMP-Q). We studied the aspects of Nomophobia using statistical data obtained from 754 undergraduate medical students, with men making up 56.50% and women 43.50%. Three critical dimensions impacted the amount of Nomophobia among participants: gender, age, and marital status. Results showed that all but two participants were Nomophobic. The study's findings are invaluable given the unique nature of the political unrest, security concerns, and human rights challenges in Afghanistan, particularly as they pertain to women. One example is how the data collecting for the project was suddenly stopped in December 2022 when the Taliban leadership decided to outlaw women's enrollment in colleges. Consequently, it is critical to study what is true of one society, Afghanistan, at one moment in time and location, in addition to studying the traits of Nomophobia across civilizations. In order to gain a greater understanding of the prevalence of Nomophobia across broader societal settings and forces, future studies should expand the scope of participants, as highlighted in the study's conclusion.

Ranjan et al. (2024) research aimed to illustrate and comprehend the real-life struggles faced by college students who have Nomophobia and attempt to make sense of them. Seventeen first-year students from three distinct universities in India participated in this investigative phenomenological analysis study. Their majors ranged from the hard sciences to the social sciences and even commerce. The interview guide was meticulously crafted. Participants in the study were students whose scores on the NMP-Q Questionnaire, a measure of their fear of public speaking, were greater than 90. The information was captured on video and audio, then transcribed and translated from Hindi to English. We completed the coding and retrieved the themes. According to the results, there are six overarching characteristics related to digital behavior: obsession, compulsion, approval motivation, intensity, well-being, and insight.

Thangavel's (2024) research aims to find out how much of an issue social media addiction is among college students and how tradition has been moving to digital culture. It is one of the most extensive studies in India and other countries. People with NOMOPHOBIA, short for "No Mobile Phone Phobia," are dreadful when their devices cannot reach them. The hallmarks of social media addiction include an obsessive need to use or access these platforms, an unhealthy preoccupation with them, and a level of time and effort spent on them that compromises other essential parts of one's life. Many surveys have shown that all college students have a smartphone and use it heavily in school and at home. Scientists have chosen to label smartphone addiction as "nomophobia" because it can develop from an overreliance on any electronic device. Using a self-assessment survey administered via mobile phone, this research determines

whether and to what extent nomophobia is a problem among different university students. Finding out how severe a fear of the unknown is among Indians aged 15–35 is the primary goal of this research. There is a moderate to severe case of Nomophobia and a serious issue for our "physical, mental, and social health," according to this study.

The study conducted by Naser et al. (2023) sought to investigate the extent of mobile phone reliance among university students and the factors linked to it. Between September 2021 and January 2022, a cross-sectional survey was carried out at universities in Jordan, Lebanon, Egypt, Bahrain, and Saudi Arabia using a self-administered questionnaire distributed online and in paper format. The questionnaire used in this study was previously created by Aggarwal et al. Approximately 5,720 university students participated in this study, with Egypt accounting for 28,13, Saudi Arabia for 1509, Jordan for 766, Lebanon for 432, and Bahrain for 200. The average anticipated daily duration of mobile phone usage was 186.4 (94.4) minutes. The lowest mobile dependence score was recorded among university students from Lebanon and the highest among university students from Egypt. The study sample exhibited a prevalence of impaired control as the most prevalent dependence criterion at 55.6%, while hazardous use was the least common at 25.1%. Females and those who confirmed having an anxiety disorder or using an anxiety treatment had a 15% and 75% increased likelihood of developing a dependency on mobile phones, respectively.

Ceobanu et al. (2023) conducted a study in Romania that aimed to determine the predictive ability of Nomophobia and a group of psychological variables (rumination, fear of missing out (FoMO), mindfulness, and non-pathological compulsions). The study sample consisted of (194) university students in Romanian universities. Quantitative methodology was used to collect and analyze data obtained from all sample members. The NMP-Q questionnaire was modified, pre-tested, and distributed to the study sample. The results showed that the psychological variables mentioned above have a direct relationship with Nomophobia. The results were arranged in descending order: fear of missing out (FoMO), unsatisfying compulsions, and rumination. Furthermore, fear of missing out (FoMO) has the most considerable explanatory contribution to Nomophobia.

Al-Mamun et al. (2023) conducted a study in Bangladesh aimed at knowing the severity of Nomophobia, some of the factors associated with it, and the mediating role of smartphone use between Facebook addiction and Nomophobia. The study sample consisted of (585) university students using a purposive sampling method. Data were collected using a questionnaire administered in March 2022, and the questionnaire included questions related to social demographics, behavioral health, academic performance, Nomophobia, smartphone addiction, Facebook addiction, insomnia, and depression. The results showed an average nomophobia score of 88.55 out of 140 (± 21.71). The prevalence of mild Nomophobia was 9.4%, moderate nomophobia 56.1%, and severe nomophobia 34.5%. The results also showed that first-year students have higher levels of Nomophobia compared to other years. Nomophobia has been widely associated with smartphone addiction, Facebook addiction, insomnia, and depression. Furthermore, smartphone addiction significantly mediated the relationship between Facebook addiction and Nomophobia.

Sosa-Delgado et al. (2023) conducted a study in Peru intending to determine the prevalence of Nomophobia and associated factors among university students. The study sample consisted of (372) university students from three private universities in the northern region of Lima/Peru. Manifestations of Nomophobia were measured using the Nomophobia Scale (NMP-Q). The results showed that 14.8% ($n = 55$) did not have Nomophobia, 65.6% ($n = 244$) were at risk for Nomophobia, and 19.6% ($n = 73$) were suffering from Nomophobia.

Yilmaz et al. (2023) conducted a study in Turkey that aimed to find out the relationship between smartphone addiction, Nomophobia, depression, and social appearance anxiety among university students. The study sample consisted of (473) university students, including (286) males and (187) females. Data were collected using four tools: Nomophobia Scale, Smartphone Addiction Scale, Social Appearance Anxiety Scale, and Beck Depression Inventory. This correlational study revealed that Nomophobia had a significant direct effect on smartphone addiction, and social appearance anxiety had a significant direct effect on smartphone addiction and Nomophobia. Depression had a significant direct effect on social appearance anxiety. The

results also showed that the levels of Nomophobia, smartphone addiction, and social anxiety among university students were at the average level, while their degree of depression was low.

Aldhahir et al. (2023) research aimed to discover how common Nomophobia is among Saudi Arabian physiotherapy students and how it relates to their grades. Nomophobia was also investigated about other sociodemographic variables, including gender, smoking status, and housing situation. Between December 22, 2022, and January 30, 2023, researchers used the online survey platform Survey Monkey to conduct a cross-sectional study. In order to assess the degree of Nomophobia along various dimensions, the nomophobia questionnaire (NMP-Q) was utilized. The NMP-Q used a seven-point Likert scale to assess 20 statements spanning four areas. A Cronbach's alpha of 0.95 indicates great internal consistency, confirming the reliability of the questionnaire. Using a convenience sampling technique, 806 physiotherapy students from different locations in Saudi Arabia were surveyed. Nearly all participants (98.4%) had some degree of dread of the unknown, with most students showing moderate symptoms. Students who did not smoke had a GPA below 3.49, were female, and had significantly higher ratings for Nomophobia. There was an increase in Nomophobia among students whose weekly study time exceeded five hours.

Park (2021) conducted a study in South Korea intending to identify the effect of smartphone use on the negative emotions of people with visual impairment. The study sample consisted of 30 participants with visual impairment. Participants were selected from the total number conducted nationally through the 2016 Internet Overdependence Survey in South Korea to achieve the study's objectives. Thirty people with visual impairment were selected and contacted, and the questionnaire was filled out directly from the sample. The study showed that using smartphones to communicate reduced negative feelings among people with visual impairment. Using it for entertainment or seeking information was associated with increased negative emotions such as depression and loneliness. It was also found that use to retrieve information is associated with a lower level of anxiety, and the results of this study also showed that using the Internet can be a means of providing opportunities for interaction and reducing negative feelings for people with visual impairment.

León-Mejía, Gutiérrez-Ortega, Serrano-Pintado, González-Cabrera (2021) conducted a systematic review of 108 studies published in English and Spanish that aimed to identify assessment data and prevalence of Nomophobia. Gender and age differences were also reviewed to identify risk factors. The results showed that women and younger individuals suffer more from Nomophobia. The results also showed a variation in the degree of prevalence of Nomophobia, and this variation is due to differences in evaluation criteria.

Kumar, Kumari, Bharti, and Sharma (2021) conducted a study in India that aimed to determine the level of Nomophobia in a sample of Indians between the ages of 15 and 35. The study sample consisted of (2061) respondents selected using a snowball approach. An electronic questionnaire was designed for the study via Google Forms, and a particular link was distributed to social media groups. The results showed that 52.9% of the participants were male and 47.1% were female. Also, 92.2% of the participants are between 18 and 24 years old. Moreover, 79.1% of the participants are undergraduate or pursuing graduation. The results also showed that 74.8% of the participants had a moderate level of Nomophobia, 18.9% had a severe level of Nomophobia, and 6.3% had a mild level of Nomophobia.

Jahrami, Abdelaziz, Bin Sanad, Al-Hajj, Buheji, Bragazzi, Saif, Bahamam, Vitiello Jahrami, Abdelaziz, Binsanad, Alhaj, Buheji, Bragazzi, Saif, BaHamma & Vitiello, 2021, conducted a study in Bahrain that aimed to find out the relationship between symptoms of Nomophobia, food addiction, and anxiety. The study sample consisted of (654) respondents to the questionnaires used for the study. Google Forms were used. This exploratory study used a structured questionnaire that was self-administered online, which included Basic sociodemographic and anthropometric measurements, the Nomophobia Questionnaire (NMP-Q), the Insomnia Severity Index (ISI), and the Yale Food Addiction Scale (YFAS). The results showed that symptoms of severe Nomophobia, moderate to severe insomnia, and food addiction were more common among female participants for each disorder individually or combined; No association was found between nomophobia and food addiction.

Daei, Ashrafi-rizi, and Soleymani (2019) conducted a study in Iran to determine the relationship between smartphone use and Nomophobia in university students. The study sample consisted of (320) students

through cluster sampling. The nomophobia and smartphone use questionnaires were used to achieve the study's objectives. The results showed that the incidence of Nomophobia among students was average (3.1), and the level of smartphone use among 73% of students was moderate. Nomophobia had a significant relationship with gender, age group, and education level; The frequency of smartphone use had a significant relationship with age group and education level. There was a positive correlation coefficient between Nomophobia and frequent use of smartphones. Mobile phone use predicted Nomophobia with a beta coefficient 0.402 ($P < 0.05$).

Methodology And Procedures

Study Population

The study population consisted of visually impaired Jordanian university students enrolled in Jordanian universities in the first semester of the academic year 2023-2024. The number of students in Jordanian public and private universities reached 1,017 male and female students with visual impairment.

The Study Sample

The study sample consisted of (300) students with visual impairment at Jordanian public universities who were selected intentionally. They were selected from the following universities: The University of Jordan (200), Al-Balqa Applied University (50), and Yarmouk University (50). The criteria for their selection into the sample were: 1- Owning a smartphone, 2- Registered in a Jordanian university in the first semester of the academic year (2023-2024), 3- They have a visual disability, 4- None of the participants had any other disabilities.

Table (1) shows the sample distribution according to gender, academic year, and degree.

Table 1. Frequencies And Percentages According to Study Variables

	Categories	Frequencies	Percentage
Gender	Male	138	46.0
	Female	162	54.0
Academic year	First	99	33.0
	Second	127	42.3
	Third	33	11.0
	Fourth	41	13.7
Academic degree	Diploma	100	33.3
	Bachelor	150	50.0
	Postgraduate	50	16.7
	Total	300	100.0

Study Tool

To measure the symptoms of Nomophobia, the Nomophobia Questionnaire (NMPQ) was used in the current study, which was developed by (Abu et al., 2023). The study tool consisted of 27 items. The scale consists of a five-point correction key (applies to a degree: very large, significant, medium, tiny, minimal). The scale was translated from English to Arabic by the study's researchers and then presented to a specialist in the Arabic and English languages to verify the accuracy of the translation from English to Arabic to verify the consistency and linguistic integrity of the paragraphs. For the current study, the subscale and total scores of the scale were used. The Arabic version of the NMP-Q was developed through a forward/backward translation process conducted by bilingual experts. First, two bilingual translators translated the NMP-Q into Arabic (forward translation). Second, other translators translated the Arabic version into English (reverse translation). Third, the research group composed of Arabic language

specialists and translators reviewed all versions to resolve the discrepancy and achieve conceptual equivalence. Some formal Arabic terms have been replaced with selected terms from commonly used Arabic to make the approach more precise. For example, "I will panic" is translated as "I will be afraid." Fourth, the researchers proposed adding eight more questions to cover all dimensions of Nomophobia. Excessive mobile phone use was proposed as part of the nomophobia concept and was assessed by eight additional questions.

Tool Validity and Reliability

The apparent validity of the Phobia of losing the phone scale was extracted by presenting its initial image to a group of specialized arbitrators who hold doctorate degrees in psychological and educational counseling. They numbered (10) ten arbitrators professors from public and private Jordanian universities. The scale, in its initial form, consisted of (28) items; the arbitrators were asked to express their opinion on these paragraphs in terms of their suitability to the concept of the scale, the nature of the examinations, and the objectives of the study, and to make an amendment to some paragraphs, and to add or reject some paragraphs if they are repeated. The percentage of agreement on the validity of the scale items among the arbitrators reached (80%); thus, the scale items in their final form consisted of (27) items.

Construct Validity

To extract the implications of the scale's construct validity, the item's correlation coefficients with the scale's total score were extracted in an exploratory sample outside the study sample, which consisted of (30) male and female students. The correlation coefficients of the item with the total scale score ranged between (0.53-0.87), and the following Table shows this.

Table 2. Correlation Coefficients Between the Item and The Total Score of The Scale

Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient
1	.60**	10	.59**	19	.80**
2	.71**	11	.86**	20	.84**
3	.59**	12	.77**	21	.72**
4	.54**	13	.86**	22	.77**
5	.61**	14	.73**	23	.84**
6	.72**	15	.75**	24	.86**
7	.53**	16	.73**	25	.87**
8	.66**	17	.68**	26	.84**
9	.59**	18	.85**	27	.84**

*Statistically significant at the significance level (0.05).

** Statistically significant at the significance level (0.01).

It should be noted that all correlation coefficients were of acceptable and statistically significant degrees, and therefore, none of these items were deleted.

Study Tool Reliability

To ensure the reliability of the study tool, it was verified using the test-retest method by applying the scale and re-applying it after two weeks to a group outside the study sample consisting of (30). Then, the Pearson correlation coefficient was calculated between their estimates for the two times, reaching (0.91). The

reliability coefficient was also calculated using the internal consistency method according to the Cronbach Alpha equation, reaching (0.84), and these values were considered appropriate for this study.

Statistical Standard

The five-point Likert scale was adopted to correct the study tools by giving each of its items one score out of its five degrees (very large, large, moderate, tiny, very little), which are represented numerically (5, 4, 3, 2, 1) respectively, the following scale was adopted to analyze the results:

1.00-2.33 Little

2.34-3.67 medium

3.68-5.00 large

The scale was calculated using the following equation:

(The upper limit of the scale (5) - The lower limit of the scale (1) The number of required categories (3) = $(5-1)/3 = 1.33$. Then, add the answer (1.33) to the end of each category.

Study Procedures

The study was implemented by preparing the theoretical and experimental material, selecting the study sample, applying the study tool, and the final image of the study according to the following steps:

Address the official authorities in Jordanian universities to obtain the necessary official and technical approvals to participate in the study procedures.

Collect and translate theoretical literature and previous studies and use them for the study.

Prepare and codify study tools and extract psychometric properties to ensure validity and reliability.

The study tool was judged by presenting it to a group of specialized arbitrators to verify its apparent logical validity, consisting of ten (10) professors who specialize in counseling, psychology, and special education and hold doctorates from psychology departments in Jordanian universities in psychological counseling, mental health, and special education.

Collect demographic and social information in an organized manner, apply the study scale to select study individuals, and identify the characteristics of the study population.

Data is entered into the computer and processed using the Statistical Software Package for the Social Sciences (SPSS). The necessary statistical analyses are performed by extracting frequencies, percentages, arithmetic averages, and standard deviations.

Results Of the Study

The first question: What is the degree of prevalence of the fear of losing the phone (Nomophobia) among Jordanian university students with visual impairment?

To answer this question, the arithmetic averages and standard deviations of the prevalence of Nomophobia among Jordanian university students with visual impairment were extracted, and the Table below shows this.

Table 3. Arithmetic Averages and Standard Deviations of The Prevalence of The Fear of Losing the Phone (Nomophobia) Among Jordanian University Students with Visual Impairment, Arranged in Descending Order According to The Arithmetic Averages

Rank	Number	Paragraphs	Arithmetic average	Standard deviation	Degree
1	17	I feel anxious if I cannot communicate immediately with my family or friends.	4.40	.910	High
2	18	I feel anxious if my family or friends cannot contact me.	3.88	1.164	High
3	20	I feel anxious if I do not regularly contact my family or friends.	3.84	1.020	High
4	19	I feel stressed if I cannot receive messages and calls.	3.82	.992	High
4	22	I feel anxious about losing constant communication with my family or friends.	3.82	.933	High
6	21	I get nervous if I cannot find out who tried to contact me.	3.79	.919	High
7	16	I cannot reduce the time I use my smartphone.	3.78	1.033	High
8	12	I stop any activity when I use my smartphone.	3.75	.958	High
9	13	I feel connected to others when I use my smartphone.	3.74	.900	High
9	23	I feel anxious if my online activities are interrupted.	3.74	.979	High
11	1	I feel uncomfortable if I cannot constantly access information using my smartphone.	3.73	.799	High
12	14	I do not track the time I use my smartphone.	3.72	.966	High
13	15	The thought of being without my smartphone makes me nervous.	3.71	1.003	High
13	24	I feel uncomfortable if I cannot follow the latest news on social media and the Internet.	3.71	1.096	High
15	25	I feel overwhelmed if I need help to keep up with my notifications and website updates.	3.67	.901	Average
16	2	I feel wrong about not being able to follow up on information on my smartphone if I needed to.	3.66	.835	Average
17	9	I'll check my phone if I haven't checked it for a while.	3.64	.850	Average
17	11	I usually use my smartphone for no specific reason.	3.64	.936	Average
19	3	I feel stressed if I cannot get news on my smartphone (weather, social media sites, etc.).	3.62	.887	Average
20	4	I feel upset if I do not use my smartphone and its features.	3.60	.880	Average
21	10	I usually think about it when I'm not using my smartphone.	3.59	.997	Average

22	8	I'm afraid I'll be stranded if I cannot use my smartphone.	3.56	.880	Average
33	27	I feel lost because I do not know what I should do.	3.56	.868	Average
24	5	I panic when my smartphone battery runs out.	3.53	.838	Average
24	6	I panic if my monthly balance or internet packages are about to run out.	3.53	.814	Average
24	26	I feel anxious if I cannot check my email.	3.53	.918	Average
27	7	I check my phone several times when the Wi-Fi signal disappears.	3.49	.834	Average
		Total score	3.70	.711	High

Table (3) shows that the arithmetic averages ranged between (3.49 and 4.40), where paragraph No. (17), which states, "I feel anxious if I cannot communicate immediately with my family members or friends," came in first place, with an arithmetic average of (4.40), While Paragraph No. (7), which reads, "I check my phone several times when the signal for connecting to the Internet (Wi-Fi) disappears," ranked last, with an arithmetic average of (3.49). The arithmetic average of the prevalence of the fear of losing the phone (Nomophobia) among Jordanian university students with visual impairment as a whole was (3.70).

The second question: Are there statistically significant differences ($\alpha = 0.05$) in the degree of Nomophobia among Jordanian university students with visual impairment due to the variables of gender, academic year, and academic degree?

To answer this question, the arithmetic averages and standard deviations of the degree of Nomophobia among Jordanian university students with visual impairment were extracted according to gender, year of study, and academic degree, and the Table below shows this.

Table 4. Arithmetic Averages and Standard Deviations of The Degree of Nomophobia Among Jordanian University Students with Visual Impairment According to The Variables of Gender, Academic Year, And Academic Degree

		Arithmetic average	Standard deviation	Number
Gender	Male	3.38	.732	138
	Female			
		3.98	.561	162
Academic year	First	4.00	.529	99
	Second			
	Third			
	Fourth			
		3.63	.793	127
		3.54	.834	33
		3.34	.407	41
Academic degree	Diploma	3.97	.645	100
	Bachelor's			
	Postgraduate			
		3.63	.711	150
		3.42	.684	50

Table (4) shows an apparent variation in the arithmetic averages and standard deviations of the degree of Nomophobia among Jordanian university students with visual impairment due to the different categories

of variables of gender, academic year, and academic degree. To demonstrate the significance of the statistical differences between the arithmetic means, a three-way analysis of variance was used in Table (5).

Table 5. Three-Way Analysis of Variance of The Effect of Gender, Academic Year, And Academic Degree on The Degree of Nomophobia Among Jordanian University Students with Visual Impairment

Source of variance	Sum of squares	Degrees of freedom	Mean squares	F value	Statistical significance
Gender	27.299	1	27.299	78.523	.000
Academic year					
Academic degree					
Error					
Total					
	11.734	3	3.911	11.251	.000
	6.604	2	3.302	9.497	.000
	101.863	293	.348		
	151.347	299			

It is evident from Table (5) that:

There were statistically significant differences ($\alpha = 0.05$) due to the effect of gender, as the F value reached 78.523 with a statistical significance of 0.000, and the differences favored females.

There were statistically significant differences ($\alpha = 0.05$) attributed to the effect of the school year, where the F value reached 11.251 and had a statistical significance of 0.000. Post hoc comparisons were used using the Scheffe method to demonstrate statistically significant pairwise differences between the arithmetic averages, as shown in Table (5).

There were statistically significant differences ($\alpha = 0.05$) attributed to the effect of the academic degree, as the F value reached 9.497 with a statistical significance of 0.000. Post hoc comparisons were used using the Scheffe method to show the statistically significant pairwise differences between the arithmetic means, as shown in Table (6).

Table 6. Post Hoc Comparisons Using the Scheffe Method of The Effect of The Academic Year on The Degree of Nomophobia Among Jordanian University Students with Visual Impairment

	Arithmetic average	First	Second	Third	Fourth
First	4.00				
Second	3.63	.37*			
Third	3.54	.46*	.09		
Fourth	3.34	.67*	.30	.20	

**Statistically significant at the significance level ($\alpha = 0.05$)*

Table (6) clearly shows statistically significant differences ($\alpha = 0.05$) between the first and the second, third, and fourth, and the differences favor the first.

Table 7. Post Hoc Comparisons Using the Scheffe Method of The Effect of Academic Degree on The Degree of Nomophobia Among Jordanian University Students with Visual Impairment

	Arithmetic average	Diploma	Bachelor	Postgraduate
Diploma	3.97			
Bachelor	3.63	.34*		
Postgraduate	3.42	.55*	.21	

**Statistically significant at the significance level ($\alpha = 0.05$)*

Table (7) clearly shows statistically significant differences ($\alpha = 0.05$) between the diploma and both bachelor's and postgraduate studies, and the differences were in favor of the diploma.

Discussion of the Results

This study sought to examine the frequency of Nomophobia among visually impaired university students in Jordan, drawing attention to the fact that these students rely heavily on their mobile devices for social and communication purposes. Students in this study relied heavily on mobile connectivity, as indicated by their average Nomophobia score of 3.70.

The First Question: What is the degree of prevalence of the fear of losing the phone (Nomophobia) among Jordanian university students with visual impairment?

The results showed that the degree of fear of losing the phone (Nomophobia) among Jordanian university students with visual impairment was high. We can explain this difference by the nature of the students responding to the questionnaire used in these studies and the extent of their reliance on smartphones in their daily lives. The researchers attribute this result to the high degree of dependence of students with visual impairment on their smartphones to communicate, follow the news, and other daily activities, which led to a high degree of Nomophobia among them because, in this matter, they see that losing the phone means losing news of their close friends or losing any information that they see as helping them communicate with the outside world and because of its necessity in managing their lives in all aspects, whether psychological or social. Phones are also considered an integral part of the university student's life, as the reader is considered to be the one they cannot do without, as through it he can access lectures remotely, register and communicate with faculty members and colleagues, search for information and referring to various knowledge sources, it is easy to carry, and there are specialized applications for people with visual impairment on smartphones that allow them to use it effectively and independently. This makes it essential in the life of a university student with a visual disability. In the event of his loss, he feels that he is deprived of these services, as it is not easy to have a reading person who can be relied upon at any moment to deliver information to them. This result has been partially confirmed by some studies, such as (Daei & Soleymani, 2019), (Kumar et al., 2021), and (Al-Mamun et al., 2023), and this result was different from the results of some studies such as study (Yilmaz et al., 2023) and (Sosa-Delgado et al., 2023).

The Second Question: Are there statistically significant differences ($\alpha = 0.05$) in the degree of Nomophobia among Jordanian university students with visual impairment due to the variables of gender, academic year, and academic degree?

The results showed statistically significant differences ($\alpha = 0.05$) due to the effect of gender in favor of females. There were statistically significant differences ($\alpha = 0.05$) due to the effect of the academic year, and the differences favored the first academic year. The results also showed statistically significant differences ($\alpha = 0.05$) due to the effect of the academic degree, and the differences favored the diploma. This result can be explained because females, especially females with disabilities, are unique in our Arab societies in that females. Young people are more susceptible to Nomophobia, whereas the visually impaired student relies heavily on her family to move around and discover the new environment around her. The

idea of being separated from her family on campus may cause her stress and fear, which she can overcome through continuous and direct communication with her family via the smartphone. As for attributing the result to the effect of the academic degree, it may be because first-year students are affected by the differences in the people they are dealing with and the fear of the university environment and what it requires in terms of registration, adherence to deadlines, and the presence of new terms for them, such as a lecture, withdrawing and adding subjects, dropping the subject, knowing where their educational hall is, the type of study, and the atmosphere of different exams. All of these things they may not be accustomed to before. Being away from the phone makes them feel afraid and paranoid, especially without the presence of their family, who are accustomed to them directing them to do whatever they want, unlike students of older years, who are accustomed to being away from their family and the university environment. The result of this study agreed with (Al-Mamun et al., 2023) in terms of years of study, and this result can be attributed to the young age of the students and thus their dependence on their family and guardians in the various affairs of their lives.

Consequently, they are attached to the smartphone, which provides them with the ability to communicate directly and continuously with the family so that the student with a visual disability feels that he is safe and can reach his family and communicate with them easily through his smartphone. The result of this study also agreed with the studies of (Leon-Mejia et al., 2021) (Jahrami et al., 2021). This result partly differed from the results of some studies, such as the NMP-Q study (Sosa-Delgado et al., 2023) (Daei & Soleymani, 2019), (Jahrami et al., 2021), (Yilmaz et al., 2023), (Sosa-Delgado et al., 2023), (Ceobanu et al., 2023).

Analysis of Prevalence

The inability to instantly contact loved ones caused the most significant amount of documented anxiety (4.40 on average), suggesting an extreme reliance on one's mobile devices for social and emotional support. These results align with those of Park (2021), who found that using smartphones significantly lessens negative emotions among visually impaired people by making social contact easier for them. This study supports Park's findings by highlighting the importance of mobile devices for visually impaired people's well-being.

Impact of Demographic Variables

Nomophobia was found to vary significantly by gender, academic year, and degree type, according to the investigation. This finding is in line with previous research showing that females are more likely to experience Nomophobia than males. For example, Daei, Ashrafi-rizi, and Soleymani (2019) similarly discovered greater levels among female students, indicating a potential gender bias in this area of fear. Students in their first year of college showed the most significant prevalence of Nomophobia, which may be a result of their increased autonomy and reliance on technology since starting college. Supporting this observation, Al-Mamun et al. (2023) found that Nomophobia is more common among first-year college students due to the difficulties they face adjusting to campus life.

Nomophobia was most prevalent among diploma students, which may reflect their heavy reliance on online resources for schoolwork or their increased comfort level with technology in everyday life. This finding goes against Jahrami et al. (2021), who did not detect a significant difference in Nomophobia levels according to educational background in their more extensive demographic study. This suggests that the impact of academic degrees on Nomophobia might differ depending on the particular student population and their specific circumstances.

This study added to the limited body of literature by investigating Nomophobia, or the dread of losing one's phone, among visually challenged university students from Jordan. According to the results, female students, first-year students, and diploma holders had the highest rates of Nomophobia. Anxieties when mobile device access is limited might result from over-reliance on cell phones for social interaction, academic work, and communication.

Nomophobia is common among college students around the world, especially among younger generations, according to the study's authors. One study that looked at students in five Arab nations and identified a link between nomophobia and anxiety levels—particularly in female students—was Naser et al. (2023). That women are more likely to suffer from Nomophobia is in line with the results of the present study, which also found that women rely more heavily on their cell phones for social and emotional support. This should be further investigated in future studies by looking at the mental impacts of phobias on other marginalized groups, like people with other types of disability.

Al-Mamun et al. (2023) found that early university students are more prone to Nomophobia due to their transitional period into university life, consistent with the study's result that first-year students experienced the most significant levels of Nomophobia. University orientation programs should incorporate tailored interventions to promote healthy technology use, as students increasingly rely on cell phones to handle new social and academic expectations. Longitudinal studies that follow students as they go through school could be the subject of future study on pupils' increasing reliance on smartphones.

In contrast to Jahrami et al. (2021), who failed to detect significant differences in Nomophobia based on academic background, the correlation between academic degree and phone dependency was higher among diploma students. Students with impairments, in particular, may benefit from additional studies examining how their educational experiences and environments impact their reliance on smartphones.

More than that, this study paves the way for future studies to look into the particular apps and features (such as accessibility aids) that could either exacerbate or ease Nomophobia. It also offers helpful insights into how visually impaired students use cell phones. Previous studies have shown that smartphones can help visually impaired people feel better emotionally. To further understand the impact of technology on this population's well-being, it would be helpful to investigate the different types of phone use: social, academic, and entertainment.

Conclusion

Nomophobia, or the dread of losing one's phone, is very common among visually impaired university students in Jordan, according to this study. According to the results, these students rely heavily on their smartphones for social media, academic materials, and communication. Nomophobia was more prevalent among females, first-year students, and diploma candidates, suggesting that some groups are more prone to becoming dependent on smartphones than others. The research highlights the importance of providing visually impaired students with counseling and educational programs to help them regulate their smartphone use healthily. This will help them reduce anxiety and develop a more balanced relationship with technology. Educators, mental health providers, and legislators must use the findings of this study to create programs that encourage digital wellness and lessen the detrimental psychological effects of being too dependent on smartphones.

Future Research Directions

- **Longitudinal Studies:** Looking at how Nomophobia develops throughout college and beyond can help shed light on how smartphone dependence evolves in response to life events and scholastic pressures.
- **Intervention Strategies:** In order to lessen the psychological toll that Nomophobia takes, it would be helpful to design and evaluate interventions that target first-year students and people with impairments in particular.
- **Technology-Specific Use:** Finding specific elements of smartphones (such as accessibility options for visually impaired people) because Nomophobia should be the primary goal of future studies.

Comparative Studies: A more complete picture of technology dependence in different populations might be achieved by comparing the levels of fear among visually impaired students with those of other disability groups in future studies.

References

- Abu Salih, M., Khader, Y. Amarnah B. Alyahya, M. & Al-Adwan, N. (2023). Psychometric Properties of the Arabic Version of the Nomophobia Questionnaire in Jordan. *The Arab Journal of Psychiatry*, 34(1), 75 – 87. Doi-10.12816/0061474
- Abukhanova, A., Almukhambetova, B., Mamekova, A., Spatay, A., & Danikeyeva, A. (2024). Association between nomophobia and learning performance among undergraduate students: The mediating role of depression and anxiety. *Frontiers in Education*, 9, Article 1365220. <https://doi.org/10.3389/educ.2024.1365220>
- Aldhahir, A. M., Bintalib, H. M., Alhotye, M., Alqahtani, J. S., Alqarni, O. A., Alqarni, A. A., Alshehri, K. N., Alasimi, A. H., Raya, R. P., Alyami, M. M., Naser, A. Y., Alwafi, H., & Alzahrani, E. M. (2023). Prevalence of Nomophobia and Its Association with Academic Performance Among Physiotherapy Students in Saudi Arabia: A Cross-Sectional Survey. *Journal of Multidisciplinary Healthcare*, Volume 16, 2091–2100. <https://doi.org/10.2147/jmdh.s415891>
- Al-Mamun, F. Mamun, M. Prodhan, MD. Muktarul, M. Griffiths, M., Muhit, M. & Sikder, M. (2023). Nomophobia among university students: Prevalence, correlates, and the mediating role of smartphone use between Facebook addiction and Nomophobia. *Heliyon*, 9. <https://doi.org/10.1016/j.heliyon.2023.e14284>.
- Awed, H. & Hammad, M. (2022). Relationship between Nomophobia and impulsivity among deaf and hard-of-hearing youth. *Scientific Reports*, 12, <https://doi.org/10.1038/s41598-022-17683-1>
- Bhattacharya, S. Abu Bashar, M. Srivastava, A. & Singh, A. (2019). NOMOPHOBIA: NO MOBILE PHONE PHOBIA. *Journal of Family Medicine and Primary Care*, 8(4), 1297–1300.
- Ceobanu, C. Marian, A. & Apostolache, R. (2023). Glimpse on 21st century new phobias; a predictive model of Nomophobia. *Frontiers in Public Health*. Doi: 10.3389/fpubh.2023.1252099
- Daei, A. Ashrafi-rizi, H. & Soleymani, M. (2019). Nomophobia and Health Hazards: Smartphone Use and Addiction among University Students. *International Journal of Preventive Medicine*, 202(10).
- Duplaga, M. (2017). The digital divide among people with disabilities: analysis of data from a nationwide study for determinants of internet use and activities performed online. *PLOS One*, 12(6).
- Hwang, J. H. (2019). The effect of the digital divide on life satisfaction of disabled people. *Inform. Policy* 26, 53–68.
- Jahrami, H. Abdelaziz, A. Binsanad, L. Alhaj, O. Buheji, M. Bragazzi, N. Saif, Z. BaHammam, A. & Vitiello, M. (2021). The Association between Symptoms of Nomophobia, Insomnia and Food Addiction among Young Adults: Findings of an Exploratory Cross-Sectional Survey. *International Journal of Environmental Research and Public Health*, 18(18), <https://doi.org/10.3390/ijerph18020711>
- King ALS, Valença AM, Nardi AE. (2010). Nomophobia: The Mobile Phone in Panic Disorder with Agoraphobia. *Cognitive and Behavioral Neurology*, 23(1), 52–4.
- Kraishan, S. M., Aldwecat, S. H. S., Amarnah, B. H., & Al-majali, M. A. (2024). Prevalence and impact of Nomophobia on academic performance among university students: South of Jordan. *Migration Letters*, 21(S3), 178-191. <https://migrationletters.com/index.php/ml/article/view/6742>
- Kumar, R. Kumari, S. Bharti, P. & Sharma, D. (2021). Nomophobia: A rising concern among Indian students. *Industrial Psychiatry Journal*, 30(2), 230–233.
- Lee, S. Y. (2014). Examining the factors that influence early adopter's smartphone adoption: The case of college students. *Telematics and Informatics*, 31(2), 308–318.
- Lee, S., Kim, M., Mendoza, J. S., & McDonough, I. M. (2018). Addicted to cell phones: Exploring the psychometric properties between the nomophobia questionnaire and obsessiveness in college students. *Heliyon*, 4(11), 1-20.
- Leo'n-Mejía, A., Gutie'rréz-Ortega, M., Serrano-Pintado, I. & González-Cabrera, J. (2021). A systematic review on nomophobia prevalence: Surfacing results and standard guidelines for future research. *PLoS ONE* 16(5).
- Mboshi, N. (2018). teaching learners with visual impairment in an inclusive Education Setting: The Cameroon Perspective. *International Journal of Education and Research*, pp. 6, 109–118.
- Park, E. (2021). Relation between the Degree of Use of Smartphones and Negative Emotions in People with Visual Impairment. *Frontiers in Psychology*, p. 12.
- Ranjan, R., Balhara, Y. P. S., Mishra, B. R., et al. (2024). Description of Nomophobia among college students: An interpretative phenomenological analysis. *Indian Journal of Psychological Medicine*. Advanced online publication. <https://doi.org/10.1177/02537176231219195>
- Rodríguez-García, A. M., Moreno-Guerrero, A. J., López Belmonte, J. (2020). Nomophobia: An Individual's Growing Fear of Being without a Smartphone Systematic Literature Review. *International Journal of Environmental Research and Public Health*, 17(580), 1-19.
- Samaha, M. & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321–325. doi: 10.1016/j.chb.2015.12.045.
- Sosa-Delgado, O. Ayala-Rojas, M. Pineda-Yupanqui, S. Flores-Ramos, J. Julca-Santos, K. & Morales, J. (2023). Nomophobia, a disease linked to mobile phone addiction: A descriptive study among university students. *World Journal of Advanced Research and Reviews*, 20(01), 1234–1239.
- Swar, B. Hameed, T. (2017). Fear of Missing out, Social Media Engagement, Smartphone Addiction, and Distraction: Moderating Role of Self-Help Mobile Apps-based Interventions in the Youth. *Proceedings of the 10th International Joint Conference on Biomedical Engineering Systems and Technologies*. (139-146).

- Thangavel, V. (2024). Nomophobia in India: A Psychological Disorder that Causes the Brain to Release Dopamine in Response to Tweets, Emoticons, and Other Acts, Rewarding the Behaviour and Sustaining the Habit of Using Social Media Addiction. *Neurology & Neurotherapy Open Access Journal*, 9(1). <https://doi.org/10.23880/nnoaj-16000187>
- Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2018). Increases in depressive symptoms, suicide-related outcomes, and suicide rates among US adolescents after 2010 and links to increased new media screen time. *Clin. Psychol. Sci.* 6, 3–17. doi: 10.1177/2167702617723376
- Wang, J.-L., Wang, H.-Z., Gaskin, J. & Wang, L.-H. (2015). The role of stress and motivation in problematic smartphone use among college students. *Computers in Human Behavior*, 53, 181–188. doi:10.1016/j.chb.2015.07.005.
- Yildirim, C., Sumuer, E., Adnan, M., & Yildirim, S. (2016). A growing fear: Prevalence of Nomophobia among Turkish college students. *Information Development*, 32(5), 1322–133>
- Yilmaz, F. Ustun, A. Zhang, K. & Yilmaz, R. (2023). Smartphone Addiction, Nomophobia, Depression, and Social Appearance Anxiety among College Students: A Correlational Study. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*. <https://doi.org/10.1007/s10942-023-00516-z>
- Naser, A. Y., Alwafi, H., Itani, R., Alzayani, S., Qadus, S., Al-Rousan, R., Abdelwahab, G. M., Dahmash, E., AlQatawneh, A., Khojah, H. M. J., Kautsar, A. P., Alabbasi, R., Alshahaf, N., Qutub, R., Alrawashdeh, H. M., Abukhalaf, A. H. I., & Bahlol, M. (2023). Nomophobia among university students in five Arab countries in the Middle East: Prevalence and risk factors. *BMC Psychiatry*, 23(1), 541. <https://doi.org/10.1186/s12888-023-05049-4>
- Lazarus, S., Ghafari, A. R., Kapend, R., Rezayee, K. J., Aminpoor, H., Essar, M. Y., & Nemat, A. (2024). Nomophobia (no-mobile-phone Phobia) among the undergraduate medical students. *Heliyon*, 10(16), e36250. <https://doi.org/10.1016/j.heliyon.2024.e36250>.