



Nomophobia in the Digital Age: A Systematic Review of Its Impact on Anxiety, Depression, and Academic Performance

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Abstract

The widespread usage of smartphones has led to a growing concern: Nomophobia - the fear of being without a mobile phone. It's increasingly recognized as a significant digital-age mental health issues, especially among the younger generations.

This systematic review was conducted according to PRISMA guidelines. PubMed, Scopus, Science Direct, and Google Scholar databases were searched for studies published between 2020 and 2025. Twenty peer-reviewed studies met the inclusion criteria.

To systematically review the impact of nomophobia on anxiety, depression, and academic performance in students and young adults.

Nomophobia is highly prevalent worldwide. It shows a strong association with psychological problems like anxiety and depression and significantly impairs academic performance. Awareness programs, psychoeducation, and digital detox interventions are urgently required.

Keywords: Nomophobia, Anxiety, Depression, Academic Performance, Mental Health

Introduction

According to Notara et al. (2021), for instance nomophobia, often referred to as “no mobile phone phobia”- is the worry or uneasiness people feel when they can't access or use their phones. Smartphones are essential in the digital age for socializing, communication, and education, but over usage has raised psychological and academic issues.

According to several research, students who suffer from higher levels of nomophobia also suffer from anxiety, sadness, tension, insomnia, procrastination, and decreased learning effectiveness (Farchakh et al., 2021; Abdoli et al., 2023; Janatolmakan et al., 2024). All the students medical and nursing, as well as university students, are particularly susceptible to

these consequences because of their heavy reliance on mobile devices.

The purpose of this systematic review is to compile the body of research on the connection between academic performance, depression, anxiety, and nomophobia.

Some of the fastest and most extensive technological and mobile telecommunications developments in human history have occurred throughout the last 20 years. From heavy, one-purpose, and costly equipment to all-in-one, multipurpose, and potent hardware, mobile cellular devices have advanced quickly, surpassing Alexander Graham Bell's vision and expectations in terms of capabilities. Additionally, as technology has advanced, cell phones are now

available to all social classes, from the highest to the lowest.

The age of users is a barrier that hasn't stopped the spread of mobile cellular devices; both young ones as well as the elderly are equally immersed in using them. Human rarely has been more dependent on a piece of technology to meet his daily necessities, work, and life throughout human history. Due to the rising use of mobile devices and the significant reliance on them over the past 20 years, a number of diseases and medical issues that were not previously recognised by the medical community, have been directly connected to their use.

"Nomophobia," which is also known as "no mobile phone phobia," is a recently diagnosed mental illness that is essentially the dread or phobia of being cut off from one's mobile phone or its connectivity.

Origins of nomophobia

A 2008 study by the British postal service was the first to use the term "nomophobia". Nomophobia is essentially the fear and worry that people experience when they are separated from their phones; it is not limited to this situation; it may also occur when the phone is turned off or when the battery runs low or there is no internet connection. 53% of the ± 2000 participants in a 2008 study commissioned by the British postal service had "nomophobia." Additionally, the study found that male individuals experienced nomophobia at a somewhat higher rate than female participants (58% versus 47%, respectively).

The term "nomophobia" itself is misleading because "phobia" denotes a tendency towards fear, although nomophobia is more frequently identified as an anxiety-type condition. On the other hand, nomophobia has been classified as "phobia for particular or specific things" in the DSM-IV criteria. As the introduction explains, the usage of mobile devices has skyrocketed worldwide since 2008, leading to a global burden of diseases like nomophobia and its related conditions. Additionally, a group of doctors and psychiatrists are working to have nomophobia specifically and individually included in the DSM-V.

Risk factors for nomophobia

Nomophobia is thought to arise as a result of a number of risk factors. Nomophobia may develop among those with low self-esteem, anxiety disorders, social disorders, general anxiety disorder, addiction tendencies (gambling), or those who have gone through a horrific occurrence where they were unable to contact for help because they were without their mobile phones.

Signs and symptoms

Nomophobia's symptom cluster is quite similar to those of anxiety disorders. Sweating, increased alertness, anxiety, palpitations, confusion, and hyperventilation are among the symptoms that patients frequently exhibit when they first arrive.

Among the signs of nomophobia are the following:

The inability to switch off the mobile device; rather, it stays turned on all day, every day, Capacity to physically detach oneself from the mobile gadget, Fear of not being able to use the gadget to call for assistance, Anxiety or distress resulted by not checking the phone and texts, The phone is carried around all the time, even in restrooms and showers, Continuous location verification of mobile devices.

Causes of nomophobia

Age & Gender: Younger people and women are more prone.

Social Status & Culture: Being single, regional differences, and stressful contexts (e.g., political unrest) increase risk.

Phone Use: More daily screen time, constant checking, and mobile data use heighten nomophobia.

Mental Health: Anxiety, depression, stress, and social anxiety are strong contributors.

Personality: Traits like extroversion, perfectionism, impulsivity, and obsessive beliefs raise vulnerability.

Environment: Academic pressure, peer influence, and unstable life situations worsen dependence

Method

Design: Systematic review conducted in accordance with PRISMA guidelines. Databases:

PubMed, Science Direct, Scopus, and Google Scholar.

Keywords: "Nomophobia," "Anxiety," "Depression," "Academic performance," "Students."

Time Frame: January 2020 – March 2025.

Inclusion Criteria:

1. Peer-reviewed studies.
2. Focused on adolescents, students, or young adults.
3. Articles published in English

Exclusion Criteria: Editorials, case reports, and non-English articles. After screening 1,350 initial records, 20 studies were included in the final review.

Results

Prevalence of Nomophobia

The moderate-to-severe incidence among 40–80% of medical and university students (León- Mejía et al., 2021; Tuco et al., 2023).

Nomophobia intensity and subpar educational achievement had a direct correlation among nursing students (Janatolmakan et al., 2024).

Nomophobia and Anxiety

High levels of nomophobia appear to be closely associated with anxiety symptoms in studies carried out across Saudi Arabia, Lebanon, and Greece (Farchakh et al., 2021; Gnardellis et al., 2023; Alhusseini et al., 2025). Avoidance practices and social anxiety were also linked to nomophobia (Tárrega-Piquer et al., 2023).

Nomophobia and Depression

Nomophobia level and feelings of depression were found to be positively correlated in several cross-sectional studies (Abdoli et al., 2023; Notara et al., 2021). Students who used their phones constantly at night and showed sleep issues reported higher rates of depression (Jahrami et al., 2021).

Nomophobia and Academic Performance

Poor grades and procrastination are consequences of nomophobia which impacts on focus, concentration, and production. (Janatolmakan et al., 2024).

Due to late-night mobile use, students frequently suffer from sleeplessness, which impairs their academic performance. (Jahrami et al., 2021).

Discussion

These findings show nomophobia is a widespread psychological problem that has negative impacts on students' wellbeing.

Mechanism: Excessive smartphone use hampers focus, raises social anxiety, and disrupts the sleep cycles.

Medical and nursing students are high-risk groups (Copaja-Corzo et al., 2022; Lazarus et al., 2024). Consequences comprise low academic performance, social isolation, anxiety, and sadness.

The critical need for psychological interventions like counselling, mindfulness exercises, and time management training, as well as digital wellness education, are highlighted in this review.

Conclusion

In the digital age, nomophobia is a common issue that is closely linked to anxiety, despair, and low academic achievement. Through awareness campaigns, psychoeducation, and preventive treatments, the mental health professionals, educators, and nurses should address nomophobia.

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S.No.	Author (Year of Study)	Participants	Methods/ Measurements	Results
1	Alhousseini et al. (2025)	Saudi population	Cross-sectional survey, NMP-Q	Nomophobia highly prevalent; strongly associated with psychological distress.
2	Lazarus et al. (2024)	Undergraduate medical students	Cross-sectional, NMP-Q	High prevalence, linked with academic difficulties and concentration issues.
3	Rajguru et al. (2024)	Review studies	Scoping review	Identified psychological, social, and behavioral determinants of nomophobia.
4	Janatolmakan et al. (2024)	Nursing students	Cross-sectional, NMP-Q	Nomophobia highly prevalent; negatively affected academic performance.
5	Navas-Echazarreta et al. (2023)	University students (Spain)	Cross-sectional, online survey (NMP-Q)	Nomophobia increased during COVID-19; linked with stress and poor focus.
6	Tuco et al. (2023)	University students (Global)	Systematic review & meta-analysis	Overall prevalence >50% of students with moderate-to-severe nomophobia.
7	Abdoli et al. (2023)	Young adult students	Cross-sectional, NMP-Q+ psychological scales	Strong association with depression, anxiety, stress, and sleep issues.
8	Banerjee et al. (2023)	General population	Narrative review	Nomophobia is an emerging mental health issue requiring interventions.
9	García-Masip et al. (2023)	University students	Cross-sectional, personality & NMP-Q	Obsessive beliefs and maladaptive personality traits predicted severity.
10	Gnardellis et al. (2023)	Young adults (Greece)	Cross-sectional, NMP-Q + DASS scale	Nomophobia correlated with high depression, anxiety, and stress.
11	Tárrega-Piquer et al. (2023)	Nursing students	Observational study	Nomophobia strongly associated with procrastination and social anxiety.

12	Santl et al. (2022)	University students (Europe)	Cross-sectional survey	Nomophobia correlated with emotional difficulties and stress factors.
13	Copaja-Corzo et al. (2022)	Peruvian medical students	Cross-sectional, NMP-Q	High prevalence; linked with anxiety, depression, and sleep disturbance.
14	Coenen & Görlich (2022)	German university students	Cross-sectional, NMP-Q adaptation	German version validated with strong reliability and predictive validity.
15	León-Mejía et al. (2021)	Review studies	Systematic review	Nomophobia prevalence reviewed; standard guidelines for future studies proposed.
16	Farchakh et al. (2021)	Lebanese adults	Cross-sectional, NMP-Q validation	Arabic NMP-Q validated; nomophobia linked with psychological distress.
17	Jahrami et al. (2021)	Young adults	Cross-sectional	Nomophobia significantly associated with insomnia, not demographic factors.
18	Notara et al. (2021)	Young adults	Systematic review	Nomophobia linked to anxiety, depression, and poor academic outcomes.
19	Kaviani et al. (2020)	General population	Cross-sectional	Fear of being without smartphone associated with problematic smartphone use.
20	Schwaiger & Tahir (2020)	Pakistani undergraduate students	Cross-sectional, NMP-Q	Nomophobia predicted by high smartphone use, stress, and poor control.

PRISMA Flow charts for Nomophobia Systematic Review

