

EXCESSIVE USE OF MOBILE PHONES AND ITS PSYCHOLOGICAL IMPACT ON NURSING STUDENTS

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Abstract: *As we advance into the digital era, mobile devices have become integral to our daily interactions. Nevertheless, an intensified engagement with these devices has prompted concerns about potential psychological implications among nursing students, influencing their scholastic achievements and personal wellness. The primary objectives of this study were to gauge the frequency and modalities of mobile phone utilization among nursing students, ascertain its effects on their sleep quality, and evaluate its interference with academic and work-related tasks. The study additionally aimed to discern the students' perceived dependency on mobile phones and its subsequent impact on interpersonal relationships. This study employed a descriptive cross-sectional methodology, focusing on the student population at People's Nursing School, LUMHS Jamshoro. A cohort of 162 students was enlisted through a non-probability convenience sampling technique. A meticulously crafted questionnaire served as the primary tool for data collection, capturing an array of participant experiences and viewpoints. A predominant segment of the participants comprised females from middle-income families, boasting an average age of 20.83 (Std. Dev = 1.34). A substantial proportion (58.6%) reported smartphone engagement of less than 6 hours daily. Elevated anxiety levels were observed, with a notable fraction attributing their stress to mobile phone usage. Approximately 32.7% posited that their sleep quality was compromised due to their phone habits. Moreover, 35.8% indicated strained relationships with friends and family due to increased mobile engagement. Several participants emphasized key concerns such as insomnia and profound feelings of isolation linked to heightened mobile usage. The data highlights an urgent need to address the multifaceted psychological and social ramifications of unrestrained mobile phone interactions among nursing students. While these devices usher in many conveniences, their unchecked usage could catalyze profound challenges, emphasizing the need for strategic interventions to safeguard prospective healthcare professionals' mental and emotional health.*

Keywords: Mobile Device Engagement, Nursing Academia, Psychological Ramifications, Sleep Disturbances, Interpersonal Dynamics, Digital Reliance.

Introduction

In the modern age, characterized by swift tech-driven shifts, mobile phones have metamorphosed from simple communication tools to integral facets of our day-to-day lives (Twenge and Campbell, 2018). This transformation is particularly evident among younger population segments, including nursing students. Their escalated dependency on these devices has signaled a change in communication habits and raised concerns about potential mental health implications (Elhai et al., 2017). Research suggests that this elevated use, seemingly innocuous at first glance, is fraught with a series of psychological setbacks, impacting both these students' academic trajectories and personal well-being (Demirci et al., 2015; Flynn et al., 2018).

Beyond mere usage metrics and screen-time data, the ramifications of such digital behaviors gain heightened significance in light of the demanding nursing educational regimen (Ching et al., 2015). This curriculum, a harmonious blend of theoretical instruction and hands-on practice, is inherently demanding. As these aspiring nurses grapple with the dual tasks of digesting comprehensive theoretical content and its pragmatic application in ever-evolving clinical scenarios, constant digital notifications can

significantly deter their focus (Haug et al., 2015; Samaha and Hawi, 2016).

Yet, the dilemma is more profound than mere distractions. It encapsulates the emotional and mental challenges faced when juggling the healthcare world's tangible responsibilities and the digital domain's incessant engagements (Roberts et al., 2015; Van Deursen et al., 2015). Contemporary research underscores the adverse effects of over-reliance on smartphones, particularly highlighting issues like stress, disrupted sleep patterns, and mood disorders among the youth, underlining the urgency of addressing the situation (Lee et al., 2017; Terry et al., 2019).

Interventions ensure their development as competent professionals and contributing members of society (Chan et al., 2014; Thomée et al., 2011).

Methodology

The investigation was founded on a descriptive cross-sectional model and orchestrated within the People's Nursing School precincts at LUMHS Jamshoro.

A non-probability convenience sampling strategy was judiciously employed, recognizing its suitability for this context and ensuring the representativeness of the sample relative to the research aims.

A cohort of 162 participants was delineated, representing approximately 50% of the default demographic stipulated by university directives. This selection emerged from an overarching student constituency numbering 277.

The empirical data was elicited by employing a meticulously designed questionnaire, structured to capture the depth and breadth of participants' experiences and perspectives.

Incorporation criteria for People's Nursing School LUMHS require active engagement in academic pursuits, from first-year entrants to soon-to-be graduates, with a non-negotiable willingness to participate.

House officers, internees, or staff nurses were excluded from the study if they were reluctant to participate.

Mean and standard deviation were used to represent quantitative data presented as frequencies using SPSS version 21.

Results

The study encompassed a total of 162 participants, with ages ranging between 18 to 24 years. The mean age of the group was between 20 to 24 years, with a standard deviation of 1.34. Of the total participants, 85 were females, accounting for 52.47% of the group, while the remaining 77 were males, making up 47.53% of the participants.

Regarding academic year distribution, most were third-year students, representing 55 participants. On the other hand, fourth-year students constituted the smallest group. Analyzing by semester, the highest % of participants (33.95%) were from the fifth semester. In contrast, the seventh-semester students were the least represented, constituting 16.67%.

Socio-economically, a significant majority, approximately 80.86%, hailed from middle-class family backgrounds. A deeper look into their geographical origins reveals that a minority of 2.47% of the participants came from rural areas. In contrast, a significant portion, 47.53%, belonged to urban regions.

Table 1: Daily Mobile Phone Usage Patterns among Study Participants

DURATION	FREQUEN CY	PERCENTA GE
below 6 hours	95	58.6%
7 to 12 hours	44	27.2%
13 to 18 hours	12	7.4%
19-24 hours	11	6.8%
Total	162	100.0

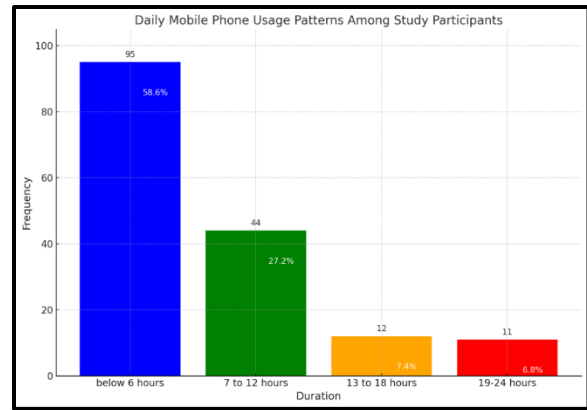


Fig.01

Upon a detailed analysis of the presented dataset, which delineates the daily mobile phone usage among the participants, several insights emerge. A notable majority, precisely 58.6%, restrict mobile phone interaction to less than 6 hours daily. This limitation might suggest a mindful approach by many to curtail screen time, indicating a balance between their personal and professional digital engagements (Table, Figure 1).

Moving to another significant segment, 27.2% of the participants interact with their devices between 7 to 12 hours daily. This observation implies that these individuals allocate, on average, between a third to half of their waking hours to digital activities. The underlying reasons for such sustained engagement could span from work commitments to recreational activities, but it undeniably underscores an increasingly digitized lifestyle for this cohort.

However, two smaller yet crucial subsets of the data exhibit exceedingly extended mobile usage durations. A 7.4% segment dedicates a staggering 13 to 18 hours daily to their phones, consuming over half their day in digital interactions. Even more astonishing is the 6.8% group claiming an almost constant mobile engagement, logging between 19 and 24 hours. Such durations raise eyebrows from a practical perspective and evoke health and well-being concerns. The motivations behind and consequences of such intensive usage patterns warrant further investigation to glean a deeper understanding of these behaviors.

Table 2: Participant Responses to Mobile Phone Separation Anxiety

DESCRIPTION	FREQUENCY	PERCENT
strongly disagree	31	19.1%
Disagree	46	28.4%
Neither agree nor Disagree	25	15.4%
Agree	49	30.2%
Strongly agree	11	6.8%
Total	162	100.0

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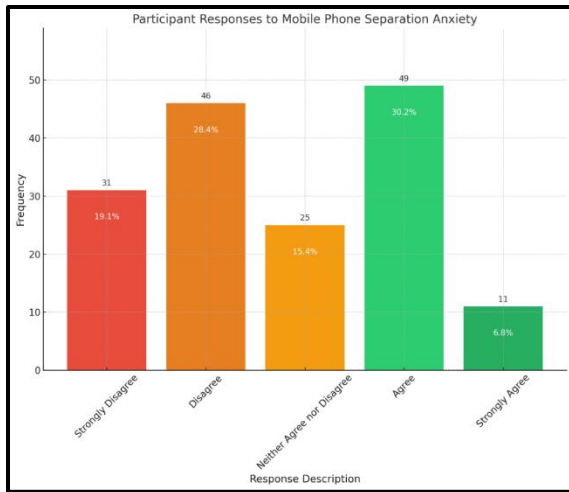


Figure 2:

Clear trends emerge when assessing students' reactions to the absence of mobile phone use. Of the 162 individuals surveyed, 49 or 30.2% concurred that the lack of phone access made them uneasy. In contrast, 46 students, or 28.4%, refuted the idea that being phoneless leads to feelings of stress. Significantly, 31 respondents, or 19.1%, were firm in their disagreement, underscoring potential robustness or lack of concern regarding phone access. Conversely, a distinct group of 11 participants, 6.8%, ardently felt the strain of being without their mobile devices, hinting at a pronounced reliance or heightened stress levels. Additionally, 25 of the respondents, or 15.4%, remained neutral, suggesting their feelings may be contingent on specific situations or mixed feelings regarding the matter. (Table, Figure 2)

Table 3: Survey Results on Continuous Mobile Phone Checking Habit

DESCRIPTION	FREQUENCY	PERCENT
strongly disagree	20	12.3%
Disagree	32	19.8%
Neither agree nor Disagree	23	14.2%
Agree	74	45.7%
Strongly agree	13	8.0%
Total	162	100.0

Of the surveyed nursing students, a predominant 45.7% exhibited affirmative responses towards the continuous urge to engage with their mobile devices. This potentially signifies a prevalent inclination towards mobile phone reliance within this academic subset. Contrarily, 32.1% (aggregating responses from the "Strongly Disagree" and "Disagree" categories) reflected an absence of this urge, elucidating a lesser propensity for habitual phone interactions.

A mere 8.0% manifested profound agreement, suggesting pronounced tendencies towards incessant phone engagement. This demographic might be emblematic of

those susceptible to adverse psychological repercussions from intense mobile device engagement. Conversely, the 14.2% who exhibited neutrality could indicate ambivalence regarding their phone interaction habits. (Table 3)

Table 4: Perceived Mobile Phone Addiction Among Respondents

DESCRIPTION	FREQUENCY	PERCENT
strongly disagree	21	13.0%
Disagree	39	24.1%
Neither agree nor Disagree	19	11.7%
Agree	53	32.7%
Strongly agree	30	18.5%
Total	162	100.0

Within a respondent pool of 162 individuals evaluating their perceived attachment to mobile phones, 32.7% (n = 53) resonated with feelings of potential dependency. On the other hand, a smaller fraction, 11.7% (n = 19), remained ambivalent, neither affirming nor refuting the idea of phone reliance. In addition, 24.1% (n = 39) expressed disagreement, and 13.0% (n = 21) strongly disagreed with feelings of phone addiction. Meanwhile, 18.5% (n = 30) indicated a pronounced agreement with the concept. (Table 4)

Among the 162 individuals surveyed about mobile phone distractions affecting their school or work tasks, 46.9% (n = 76) acknowledged the negative influence of their devices during pivotal tasks. Conversely, a fraction comprising 11.7% (n = 19) strongly negated experiencing any such disruptions. Meanwhile, 18.5% (n = 30) leaned towards disagreement, 9.9% (n = 16) provided a neutral stance, and a segment of 13.0% (n = 21) firmly corroborated the notion of significant phone-induced interference. (Figure 3)

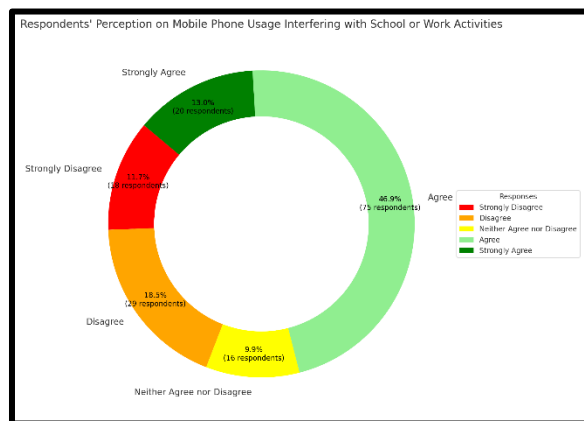


Fig 03

In a study encompassing 162 students examining the influence of mobile phone usage on sleep patterns, 32.7% (n = 53) affirmed that mobile phone usage adversely impacted their sleep. In contrast, 23.5% (n = 38) rejected this assertion. Furthermore, 16.7% (n = 27) were in strong disagreement, 15.4% (n = 25) remained ambivalent, and

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11.7% (n = 19) emphatically corroborated the detrimental effects of phone usage on sleep. (Figure 4)

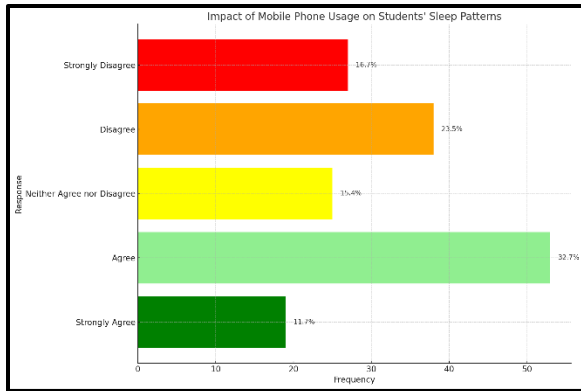


Figure 4:

Within a sample of 162 individuals examining the effects of mobile phone interactions on students' bonds, particularly with kin and peers, 35.8% (n = 58) acknowledged that heightened phone engagement hampered their relational ties. This group represented the most considerable fraction of participants. In stark contrast, 10.5% (n = 17) voiced profound agreement about the device's unfavorable role. Meanwhile, 23.5% (n = 38) and 16.7% (n = 27) offered dissenting viewpoints, downplaying or negating the negative connotations. Concurrently, an impartial perspective was shared by 13.6% (n = 22) of the respondents. (Figure 5)

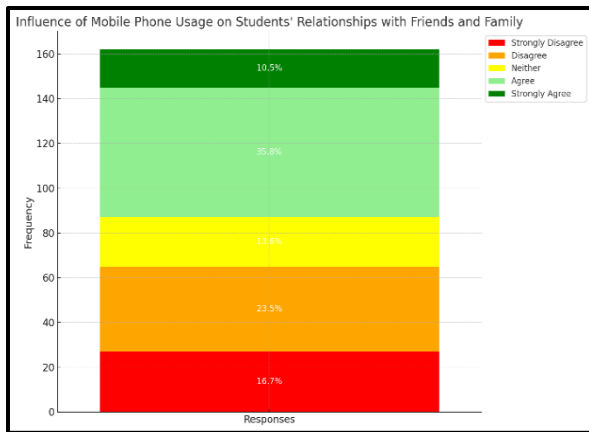


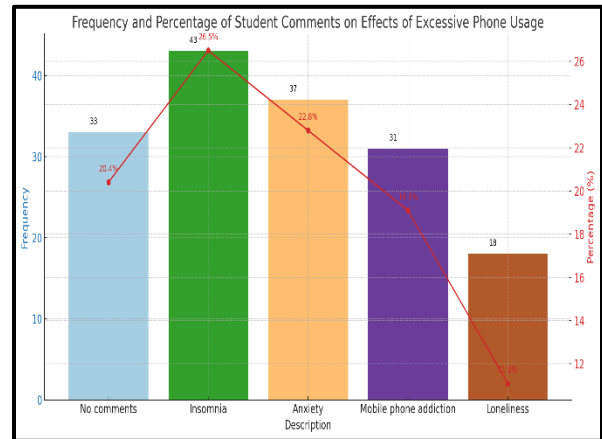
Fig 05

Table 6: Frequency and Percentage of Student Comments on Effects of Excessive Phone Usage

DESCRIPTION	FREQUENCY	PERCENTAGE
No comments	33	20.4%
Insomnia	43	26.5%
Anxiety	37	22.8%
Mobile phone addiction	31	19.1%
Loneliness	18	11.1%
Total	162	100.0

In a quantitative evaluation of 162 students' feedback regarding the ramifications of heightened mobile phone activity, 26.5% (n = 43) indicated symptoms of insomnia attributable to their phone usage. Concurrently, a smaller proportion, 11.1% (n = 18), expressed feelings of loneliness linked to similar excessive engagement. Delineating the array of responses further, 22.8% (n = 37) associated their overuse with anxiety, 19.1% (n = 31) labeled it as mobile phone addiction, and 20.4% (n = 33) abstained from providing any specific comment on the issue. (Table, Figure 6)

Fig 06



Discussion

The study found that most participants were female students from middle-class families in rural areas. The average age of the students was 20.83 years old, with a standard deviation of 1.34. This result aligns with recent studies by Dikeç and Aly, which found that most participants were female (91.4%) (Aly Hamed et al., 2022; DİKEÇ et al., 2017).

As regards the number of hours using smartphones, the current study showed that more than half of the participants used a smartphone daily for less than 6 hours. This finding was consistent with the Turkish Statistical Institute (TUIK), which reported that less than 6 hours constituted 78.8% of smartphone usage in 2019.

Regarding the anxiety levels caused by mobile phone usage, anxiety was high among nursing students. This finding agreed with the previous study by Kwon and Paek, which showed that students tend to use smartphones more and are inclined to develop anxiety (Mohamed and Mostafa, 2020). Regarding the levels of mobile phone addiction, this study had high addiction among nursing students. This finding may be due to individuals stuck in a vicious cycle.

This finding agreed with the previous study by Sethuraman, Rao, Charlette, Thatkar, and Vincent; the study showed up to 85.4% of students had a high index of smartphone addiction.

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The current study has identified that mobile phone usage affects the quality of their sleep. Yang et al (2020) found similar factors influencing differences among students in their study of sleep quality and found that sleep was associated with the severity of mobile phone addiction (Yang et al., 2020).

Conclusion

Our study showed that unrestrained mobile phone usage profoundly affects the mental well-being of nursing students. Anxiety, loneliness, and sleep disturbance were among the negative impacts discovered.

The study revealed a growing mobile phone addiction among nursing students, leading to psychological repercussions. Urgent measures are needed to protect their mental well-being.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department Concerned.

Consent for publication

Approved

Funding

Not applicable

Conflict of interest

The authors declared an absence of conflict of interest.

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