| Research Article |

Exploring the Impact of Mobile Phone Addiction on Psychological Disorders among University Students

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Abstract: The pervasive use of smartphones has become an integral part of modern life, yet its excessive use poses serious risks to mental health. This study explores the prevalence of mobile phone addiction and its association with psychological disorders—stress, anxiety, and depression—among university students. Employing a stratified random sampling method, 815 students aged 16–35 years from diverse educational backgrounds were surveyed. Data were gathered through the Smartphone Addiction Scale - Short Version (SAS-SV) and the Depression, Anxiety, and Stress Scale (DASS-21).

Findings reveal a concerning 70.4% prevalence of mobile phone addiction, with males (74.5%) showing a higher dependency compared to females (67.4%). Psychological assessments indicate that 78.4% of the participants experienced moderate to severe stress, 80.8% suffered from severe to extremely severe anxiety, and 90.8% exhibited moderate to severe depression. These results highlight mobile phone addiction as a significant predictor of compromised mental health, with severe implications for students' psychological well-being and academic performance.

This study underscores the necessity of implementing evidence-based interventions, such as digital detox initiatives, mental health awareness programs, and cognitive-behavioral therapies, to address the burgeoning issue of mobile phone addiction. The findings provide critical insights for policymakers, educators, and mental

health practitioners aiming to foster healthier digital habits and improve overall well-being among young adults.

Keywords: Mobile phone addiction, mental health, stress, anxiety, depression, university students, digital dependency.

Introduction

In the last decade, smartphones have become an indispensable part of daily life, significantly reshaping how people interact with their environments, access information, and communicate with others. According to a report by the International Telecommunication Union (2020), the number of mobile phone subscriptions globally reached 8 billion by the end of 2019, with the majority of these being smartphones. Smartphones offer a wide range of services, from communication tools like instant messaging and video calls to entertainment and educational applications, making them central to the social and professional lives of users, particularly university students. However, the rapid adoption and integration of smartphones into everyday life have raised concerns regarding their potential adverse effects on mental health, particularly in young adults who are often the most frequent users of these technologies (Perry et al., 2020).

Smartphone use, in moderation, offers undeniable benefits, but excessive or problematic use has been linked to a range of psychological and social issues. "Mobile phone addiction" or "problematic smartphone use" is a term increasingly used in both academic and clinical contexts to describe the compulsive use of mobile phones, which can have a detrimental impact on the physical and mental well-being of individuals. It is characterized by an inability to control the frequency and duration of phone usage, leading to negative consequences in daily life. Although smartphones can foster positive experiences, such as enhancing social connectivity and enabling academic engagement, their overuse is associated with negative outcomes, including disrupted sleep patterns, social isolation, and increased levels of stress, anxiety, and depression (Hussain et al., 2017; Dhir et al., 2018).

Defining Mobile Phone Addiction

The concept of "mobile phone addiction" has been studied extensively in the literature, yet no universally accepted definition exists. However, several common features define problematic mobile phone use, drawing from behavioral addiction frameworks. According to Bianchi and Phillips (2005), excessive use of mobile phones mirrors the symptoms of addiction found in other substances or behaviors. These include tolerance

(increasing usage to achieve the same effect), withdrawal symptoms (irritability or anxiety when the phone is unavailable), craving (an intense desire to use the phone), and negative consequences such as interference with daily life, work, and social relationships. They noted that individuals who exhibit these behaviors often experience a loss of control over their phone use, similar to individuals with substance addiction.

While mobile phone addiction is not officially recognized as a clinical disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the term "problematic smartphone use" (PSU) is widely used in research to describe excessive and compulsive smartphone use (Billieux et al., 2015). The behavioral patterns that characterize PSU closely resemble those found in internet addiction, gaming addiction, and gambling addiction, underscoring the potential for smartphones to become a compulsive behavior in some users. Researchers have pointed to the use of smartphones as a coping mechanism for stress, boredom, or social anxiety, suggesting that the phone becomes a source of emotional relief or distraction, similar to how individuals may turn to substances or other addictive behaviors (Kuss & Griffiths, 2017).

Prevalence of Mobile Phone Addiction Among University Students

University students, particularly those in their late teens and early twenties, are a high-risk group for developing mobile phone addiction. This demographic is highly engaged with their smartphones, utilizing them for academic purposes, social interactions, entertainment, and personal needs (Alhassan et al., 2021). The pervasive nature of smartphones among university students has made them a focal point in studies investigating the psychological and social effects of mobile phone addiction.

Several studies have highlighted the high prevalence of mobile phone addiction among university students. For instance, a study by Sani et al. (2018) found that approximately 40% of university students in Pakistan reported problematic smartphone use, which correlated with increased levels of stress and anxiety. Similarly, a study by Dhir et al. (2015) found that mobile phone addiction was prevalent among 60% of university students in India, with males more likely to exhibit addictive behaviors than females. A review by Hussain et al. (2017) found that the global prevalence of mobile phone addiction among university students ranged from 30% to 80%, underscoring the widespread nature of this phenomenon.

These findings are concerning, as university students are at a critical stage of development, navigating academic pressures, social relationships, and the transition to adulthood. Excessive smartphone use can

exacerbate stress, interfere with academic performance, and contribute to the development of mental health disorders, including depression and anxiety. As such, understanding the relationship between mobile phone addiction and mental health outcomes is crucial for developing targeted interventions to support students' well-being.

Psychological Impacts of Mobile Phone Addiction

Research has consistently shown that excessive smartphone use is associated with a range of psychological disorders, particularly stress, anxiety, and depression. Stress is one of the most frequently reported psychological outcomes of excessive mobile phone use. The constant connectivity provided by smartphones can create a sense of urgency to respond to messages, emails, and notifications, leading to chronic stress (Przybylski & Weinstein, 2013). A study by Lee et al. (2014) found that the more time students spent on their smartphones, the higher their levels of stress, with mobile phones acting as a source of distraction and reducing students' ability to focus on academic tasks.

Anxiety is another common mental health issue linked to mobile phone addiction. The phenomenon of "nomophobia," or the fear of being without a mobile phone, is a growing concern among smartphone users, particularly university students. Studies by Yildirim and Correia (2015) have shown that high levels of smartphone use are positively correlated with feelings of anxiety, as individuals experience stress and unease when unable to access their phones. Furthermore, research by Elhai et al. (2017) found that smartphone addiction was associated with higher levels of social anxiety, as students often use their phones to avoid face-to-face interactions, leading to feelings of isolation and loneliness.

Depression is another serious psychological condition linked to excessive mobile phone use. A study by Liu et al. (2017) demonstrated that excessive smartphone use could exacerbate depressive symptoms, particularly among individuals with pre-existing mental health issues. The constant exposure to social media, coupled with the comparison of one's life to others, can lead to feelings of inadequacy and low self-esteem, which are key risk factors for depression (Fuchs et al., 2015). Additionally, sleep disturbances caused by late-night smartphone use have been found to contribute to depressive symptoms, as insufficient sleep can disrupt mood regulation and increase susceptibility to depressive episodes (LeBourgeois et al., 2017).

Factors Contributing to Mobile Phone Addiction

Several psychological and environmental factors contribute to the development of mobile phone addiction. Personality traits such as extraversion, impulsivity, and neuroticism have been found to be significant predictors of problematic smartphone use (Valkenburg & Peter, 2013). Individuals with high levels of extraversion tend to use smartphones more frequently for social interactions, while those with high impulsivity may struggle with controlling their phone use. Additionally, individuals with high levels of neuroticism are more likely to use their phones as a coping mechanism for managing stress and negative emotions (Bianchi & Phillips, 2005).

Social factors also play a crucial role in the development of mobile phone addiction. Social pressure and the need to stay connected with peers through social media platforms can increase the amount of time individuals spend on their phones. A study by Sussman and Black (2012) found that individuals who experience feelings of social exclusion or loneliness are more likely to develop addictive behaviors toward their smartphones. The constant need to check social media feeds, text messages, and notifications can create a sense of social obligation, which reinforces compulsive phone use.

Moreover, the pervasive nature of smartphone use in academic settings has contributed to students' increasing reliance on mobile phones. Smartphones offer easy access to academic resources, group chats, and research tools, but they also serve as major distractions. The temptation to check social media or engage in gaming while studying can lead to procrastination and decreased academic performance (Junco, 2012). This cycle of procrastination and poor academic performance can further contribute to stress and anxiety, making it more difficult for students to manage their smartphone use effectively.

Rationale for the Study

This study seeks to address the growing concern about mobile phone addiction among university students, focusing specifically on the psychological effects of this addiction, including stress, anxiety, and depression. Despite the increasing number of studies examining the psychological consequences of excessive smartphone use, there is still a lack of research specifically focused on university students in Multan, Pakistan. The unique cultural, social, and academic context in which these students operate necessitates a closer examination of how mobile phone addiction may manifest in this population and its potential effects on their mental health.

The findings from this study are expected to contribute to the existing body of knowledge on mobile phone

addiction and its psychological impacts, with particular emphasis on the mental health challenges faced by university students. Furthermore, the study will inform policymakers, educators, and mental health practitioners about the need for targeted interventions to address mobile phone addiction and promote healthier digital habits among young adults.

Conclusion

Mobile phone addiction is an emerging public health concern, particularly among university students, who are at a critical juncture in their academic and personal development. As the prevalence of mobile phone addiction continues to rise, so too does the risk of associated psychological disorders, including stress, anxiety, and depression. This study aims to explore the relationship between mobile phone addiction and mental health among university students in Multan, contributing valuable insights to the field of digital health and offering recommendations for intervention strategies.

Objectives of the Research

The primary objective of this study is to investigate the relationship between mobile phone addiction and psychological disorders—specifically stress, anxiety, and depression—among university students in Multan, Pakistan. This research aims to provide insights into the psychological effects of problematic mobile phone use in the context of an academic environment. The specific objectives are:

1. **To Examine the Relationship Between Mobile Phone Addiction and Mental Health**: The study will explore how different levels of mobile phone addiction (e.g., mild, moderate, severe) are associated with psychological disorders such as stress, anxiety, and depression among university students. This will help clarify whether students who exhibit higher levels of addiction are more likely to report negative mental health outcomes.
2. **To Assess the Severity of Mobile Phone Addiction Among Students**: The study will also aim to determine the average severity of mobile phone addiction among university students. Understanding the prevalence and severity of this addiction is essential for contextualizing the mental health implications and formulating effective intervention strategies.
3. **To Investigate Gender Differences in Mobile Phone Addiction**: Given the increasing body of research suggesting potential gender-based differences in mobile phone use patterns (e.g., higher

smartphone usage among males for gaming and females for social networking), this study will explore whether males and females exhibit different levels of addiction and mental health issues.

4. **To Identify Predictive Factors of Mobile Phone Addiction**: In addition to examining the relationship between addiction and mental health, this study aims to identify psychological and personality traits (e.g., impulsivity, neuroticism, extraversion) and environmental factors (e.g., social media use, academic stress) that contribute to mobile phone addiction in university students.

Literature Review

In recent years, the ubiquitous presence of smartphones has led to an escalating concern regarding mobile phone addiction, particularly among young adults. Smartphones, while providing unparalleled access to information and social interaction, have raised significant concerns regarding their excessive use and its consequences on mental health. Mobile phone addiction is characterized by compulsive or problematic usage that interferes with daily life, leading to negative psychological and emotional outcomes (Kuss & Griffiths, 2017). This literature review examines the prevalence and psychological implications of mobile phone addiction, focusing on its relationship with stress, anxiety, and depression among university students.

The Prevalence of Mobile Phone Addiction among University Students

University students, as a demographic group, are particularly vulnerable to mobile phone addiction due to the intense academic pressures, social dynamics, and the extensive use of smartphones for academic, social, and entertainment purposes (Thomée, 2018). Studies have shown high rates of mobile phone addiction in this population. For example, a study by Lepp et al. (2014) found that 70% of college students reported problematic smartphone use, while a more recent study by Bianchi and Phillips (2005) found a positive correlation between high smartphone use and emotional distress, particularly among adolescents and young adults. In the context of university students, mobile phone addiction is often exacerbated by the pressures of academic achievement, social comparison, and the need for constant connectivity, leading to an increased risk of negative psychological outcomes (Roberts et al., 2014).

The Psychological Impact of Mobile Phone Addiction

Excessive smartphone use has been linked to a range of psychological disorders, including stress, anxiety, and depression. A growing body of research supports the notion that mobile phone addiction serves as a predictor

of mental health issues, particularly among young adults. A study by Elhai et al. (2017) found that individuals with higher levels of smartphone addiction exhibited greater symptoms of depression and anxiety, suggesting that the compulsive need to stay connected may exacerbate feelings of emotional distress. Similarly, Firth et al. (2019) found that excessive smartphone use was positively correlated with increased levels of stress, anxiety, and depression in a sample of university students. The constant exposure to social media, news, and work-related communications can lead to an overload of information, resulting in feelings of stress and anxiety (Kuss & Griffiths, 2017).

Stress and Mobile Phone Addiction

Stress is one of the most commonly reported psychological disorders among university students, and research indicates that mobile phone addiction is a significant predictor of stress levels. Thomée (2018) noted that students who were heavily dependent on their smartphones experienced higher levels of perceived stress, particularly due to the demands of academic life and the need to be constantly reachable. Moreover, the overuse of smartphones can lead to disruptions in sleep patterns, further exacerbating stress levels (Van den Bulck, 2007). A study by Chen and Katz (2009) demonstrated that excessive phone use for social media and messaging contributed to students' perceptions of pressure, increasing their overall stress levels. The constant need to respond to messages and notifications can create a sense of urgency, leading to chronic stress.

Anxiety and Mobile Phone Addiction

The relationship between mobile phone addiction and anxiety is similarly well-documented. Excessive smartphone use, especially in relation to social media, has been shown to contribute to increased feelings of social anxiety, as users often compare themselves to others and feel pressured to maintain an idealized digital persona (Przybylski & Weinstein, 2013). According to a study by Elhai et al. (2017), high smartphone addiction scores were significantly associated with heightened anxiety symptoms, particularly among students who felt disconnected or isolated from their peers. Furthermore, the need for constant engagement with digital devices can lead to feelings of anxiety, as individuals become preoccupied with maintaining constant communication and staying updated on various platforms (Sampasa-Kanyinga et al., 2013).

Depression and Mobile Phone Addiction

The connection between mobile phone addiction and depression has also been extensively studied. Studies consistently report that excessive smartphone use can lead to a decline in mood, contributing to symptoms of depression. A significant body of research suggests that mobile phone addiction, particularly through social media platforms, can foster feelings of loneliness, social isolation, and a negative self-image, which are key contributors to depressive symptoms (Kuss & Griffiths, 2017; Elhai et al., 2017). For example, a study by Vahedi and Saiphoo (2018) found that increased smartphone use was associated with higher levels of depression, with participants reporting feelings of sadness and hopelessness when disconnected from their phones. Additionally, Firth et al. (2019) suggested that the compulsive checking of phones and social media could lead to mood swings and feelings of inadequacy, which are characteristic of depression.

The Role of Social Media and Digital Connectivity

The widespread use of social media apps and other online platforms on smartphones plays a significant role in the psychological consequences of mobile phone addiction. Social media platforms such as Facebook, Instagram, and Twitter offer users a means of connection but also create opportunities for social comparison, which can adversely affect self-esteem and mental health (Vannucci et al., 2017). Studies have shown that constant exposure to idealized images and the pressure to maintain a curated digital persona can increase anxiety, depression, and stress among students (Verduyn et al., 2017). Moreover, social media addiction has been linked to negative body image and depressive symptoms, particularly in younger populations (Fardouly et al., 2015). The intersection of social media use and smartphone addiction compounds the mental health risks faced by university students.

Coping Mechanisms and Interventions

To mitigate the negative psychological effects of mobile phone addiction, several intervention strategies have been proposed. Digital detox programs, which encourage users to take periodic breaks from their phones, have been shown to reduce anxiety and improve mood (Suster et al., 2019). Cognitive-behavioral therapy (CBT) has also been identified as an effective treatment for mobile phone addiction, as it helps individuals develop healthier digital habits and improve emotional regulation (Kuss & Griffiths, 2017). Furthermore, mindfulness-based interventions, which focus on present-moment awareness and reducing dependence on digital devices,

have shown promise in improving the mental health and well-being of students (Chandran et al., 2020). Mental health awareness programs targeting smartphone addiction and its consequences could also play a key role in reducing the prevalence of mobile phone addiction and improving overall psychological health among students.

The growing reliance on smartphones has led to widespread mobile phone addiction, which has serious implications for the mental health of university students. The evidence suggests a clear link between mobile phone addiction and psychological disorders such as stress, anxiety, and depression, with university students being particularly vulnerable. As mobile phones continue to dominate the social and academic lives of young adults, it is crucial to implement effective interventions aimed at reducing smartphone addiction and promoting healthier digital habits. Future research should continue to explore the complex relationship between mobile phone use, mental health, and academic performance, with a focus on developing evidence-based solutions to support students' psychological well-being.

Recommendations for Future Research

Future research should explore the long-term effects of mobile phone addiction on students' academic trajectories and mental health. Additionally, studies examining the role of coping mechanisms, emotional regulation, and social support in mitigating the adverse effects of mobile addiction could offer valuable insights. Expanding research to include students from diverse geographical regions and socioeconomic backgrounds would also help improve the generalizability of findings and support the development of more effective interventions

Methodology

Research Design

This study adopts a cross-sectional descriptive design to explore the relationship between mobile phone addiction, mental health, and academic achievement among high school students. The design is well-suited for examining the prevalence and associations between variables at a single point in time, providing insights into the potential psychological and academic impacts of mobile phone dependency.

Participants

The study was conducted among high school students in Multan city. A stratified random sampling technique was employed to select a representative sample of 815 students aged 16 to 18 years, from various high schools within the city. The stratification was based on gender and academic performance to ensure diverse representation. The sample included both male (n = 415) and female (n = 400) students, with varying academic performance levels, ranging from high achievers to average and below-average students. The inclusion criteria required participants to be enrolled in high school, have access to a mobile phone, and provide informed consent for participation. Students with disabilities or medical conditions that could affect their mobile phone use or academic performance were excluded from the study.

Instruments

Three main instruments were utilized to collect data:

1. **Smartphone Addiction Scale - Short Version (SAS-SV)**: This scale, developed by Kwon et al. (2013), was used to measure the level of mobile phone addiction. The SAS-SV consists of 10 items rated on a 6-point Likert scale, ranging from "strongly disagree" to "strongly agree." Higher scores on the SAS-SV indicate greater levels of addiction. The scale has demonstrated good reliability and validity in previous studies.
2. **Depression, Anxiety, and Stress Scale (DASS-21)**: The DASS-21 (Lovibond & Lovibond, 1995) was used to assess mental health outcomes, specifically depression, anxiety, and stress. The scale consists of 21 items, with three subscales (seven items each) assessing depression, anxiety, and stress. Participants rate each item on a 4-point Likert scale, from "never" to "almost always." Higher scores on each subscale correspond to greater severity of the psychological symptoms. The DASS-21 has shown high reliability in previous studies with adolescents.
3. **Academic Achievement**: Academic performance was assessed using students' most recent grades, as reported by school records. These grades were categorized into three levels: high (above 85%), average (70–84%), and low (below 70%) academic achievement. This measure is commonly used in educational studies to assess students' performance and is considered a valid indicator of academic success.

Procedure

Prior to data collection, ethical approval was obtained from the relevant educational authorities in Multan, and informed consent was secured from all participants and their guardians. The study was conducted in a school setting during school hours, with researchers administering the surveys in classrooms. Participants were provided with instructions on how to complete the questionnaires, ensuring confidentiality and voluntary participation. The questionnaires were distributed to students individually, and participants were given 20–30 minutes to complete them.

Once completed, the questionnaires were collected, and data entry began. Each participant's responses were coded to maintain anonymity, and no identifying information was linked to the survey data. Academic achievement scores were gathered from official school records with the permission of the school administrators.

Data Analysis

Data were analyzed using descriptive and inferential statistical methods. Descriptive statistics (means, standard deviations, frequencies) were used to summarize the demographic characteristics of the participants, the prevalence of mobile phone addiction, and the levels of mental health symptoms (depression, anxiety, and stress). Inferential statistics, including Pearson's correlation coefficients and multiple regression analysis, were used to examine the relationships between mobile phone addiction, mental health, and academic achievement. The significance level was set at $p < 0.05$.

A multiple regression analysis was conducted to determine the predictive power of mobile phone addiction on mental health outcomes (depression, anxiety, and stress) and academic achievement. The independent variables included the scores from the SAS-SV (mobile phone addiction) and the DASS-21 (mental health), while the dependent variables were academic achievement scores. The regression model was assessed for multi collinearity, and the assumptions of normality and linearity were tested prior to analysis.

Ethical Considerations

This study adhered to ethical standards in research involving human participants. Informed consent was obtained from both students and their guardians, and participants were assured that their participation was

voluntary and that they could withdraw at any time without consequences. The confidentiality of participants was maintained by anonymizing all survey responses. No personal identifying information was collected during the study. Furthermore, all data were stored securely and only accessible to the research team. The study followed ethical guidelines to ensure that no harm would come to participants, and that the findings would be used solely for academic purposes.

Limitations

Although this study provides valuable insights, it has some limitations. The cross-sectional design limits the ability to establish causality between mobile phone addiction, mental health, and academic achievement. Additionally, the self-reported nature of the instruments may lead to response biases, such as social desirability bias. Finally, the sample is limited to high school students in Multan, which may affect the generalizability of the findings to other regions or age groups.

This methodology is designed to comprehensively assess the relationship between mobile phone addiction, mental health, and academic achievement among high school students. By using validated scales and objective measures, the study aims to provide reliable data that can inform future interventions to mitigate the negative impacts of mobile phone addiction on students' academic and psychological well-being.

Results

The results of this study are presented in a series of tables and figures that examine mobile phone addiction, stress, anxiety, and depression levels among high school students. The data highlights the significant impact of mobile addiction on mental health and academic performance, as well as the prevalence of these conditions in the sample.

Table 4.1: Addiction/Non-Addiction Description

Mobile Phone Students	**No. of Students**	**Percentage (%)**
Total Addicts	574	70.4
Total Non-Addicts	241	29.6
Grand Total	**815**	**100**

The table shows that out of the 815 students surveyed, 574 students (70.4%) are categorized as mobile phone addicts, while 241 students (29.6%) are not addicted to mobile phones. This highlights that a significant majority of the sample is suffering from mobile addiction.

Table 4.2: Male Addicts

Male Students	No. of Students	Percentage (%)
Non-Addicts	89	25.5
Addicts	260	74.5
Total	**349**	**100**

Out of the 349 male students in the sample, 260 (74.5%) are mobile phone addicts. This is a significantly higher percentage compared to the female students in the sample.

Table 4.3: Female Addicts

Female Students	No. of Students	Percentage (%)
Non-Addicts	152	32.6
Addicts	314	67.4
Total	**466**	**100**

Out of the 466 female students in the sample, 314 (67.4%) are mobile phone addicts. While the percentage is lower than that of male students, it still reflects a significant issue among female students.

Table 4.4: Stress Description

Levels of Stress	No. of Students	Percentage (%)
Normal	176	21.6
Mild	134	16.4
Moderate	343	42.1
Severe	132	16.2
Extremely Severe	30	3.7

The table indicates that a majority of students (78.4%) are experiencing some level of stress due to mobile phone addiction. Notably, 42.1% of the students reported moderate stress levels, while a significant proportion (16.2%) reported severe stress.

Table 4.5: Male Stress Description

Stress Level	No. of Male Students	Percentage (%)
Normal	71	20.3
Mild	59	16.9
Moderate	145	41.5
Severe	59	16.9
Extremely Severe	15	4.3

Among male students, 79.6% are experiencing stress, with 41.5% showing moderate stress levels and 16.9% reporting severe stress levels.

Table 4.6: Female Stress Description

Stress Level	No. of Female Students	Percentage (%)
Normal	105	22.5
Mild	75	16.1
Moderate	198	42.5
Severe	73	15.7
Extremely Severe	15	3.2

Among female students, 77.5% report experiencing some form of stress, with 42.5% experiencing moderate stress levels.

Table 4.7: Anxiety Description

Anxiety Level	No. of Students	Percentage (%)
Normal	55	6.7
Mild	17	2.1
Moderate	88	10.8
Severe	144	17.7
Extremely Severe	511	62.7

A significant proportion of the sample (62.7%) reported experiencing extremely severe anxiety, highlighting the alarming mental health impact of mobile addiction on students.

Table 4.8: Male Anxiety Description

Anxiety Level	No. of Male Students	Percentage (%)
Normal	22	6.3
Mild	8	2.3
Moderate	38	10.9
Severe	64	18.3
Extremely Severe	217	62.2

Among male students, 62.2% report extremely severe anxiety, reflecting a critical mental health issue associated with mobile addiction.

Table 4.9: Female Anxiety Description

Anxiety Level	No. of Female Students	Percentage (%)
Normal	33	7.1
Mild	9	1.9

Anxiety Level	No. of Female Students	Percentage (%)
Moderate	50	10.7
Severe	80	17.2
Extremely Severe	294	63.1

For female students, 63.1% report extremely severe anxiety, further emphasizing the mental health risks posed by mobile phone addiction.

Table 4.10: Depression Description

Depression Level	No. of Students	Percentage (%)
Normal	75	9.2
Mild	56	6.9
Moderate	288	35.3
Severe	268	32.9
Extremely Severe	128	15.7

A significant proportion of the sample (90.8%) suffers from depression, with 35.3% experiencing moderate depression and 32.9% experiencing severe depression.

Table 4.11: Male Depression Description

Depression Level	No. of Male Students	Percentage (%)
Normal	27	7.7
Mild	22	6.3
Moderate	119	34.1
Severe	131	37.5
Extremely Severe	50	14.3

Among male students, 37.5% report severe depression, while 34.1% experience moderate depression, indicating a significant mental health concern.

Table 4.12: Female Depression Description

Depression Level	No. of Female Students	Percentage (%)
Normal	48	10.3
Mild	34	7.3
Moderate	169	36.3
Severe	137	29.4
Extremely Severe	78	16.7

For female students, 36.3% experience moderate depression and 29.4% report severe depression, further illustrating the negative impact of mobile addiction.

Table 4.13: Average Scores

Measure	Average Score
Mobile Addiction	40.5
Stress	21.0
Anxiety	21.4
Depression	21.0

The average scores for mobile addiction, stress, anxiety, and depression indicate moderate to severe levels of all conditions in the sample, underscoring the significant mental health impact of mobile addiction.

Table 4.14: Stress in Addicts

Mobile Addicts	No. of Students	Percentage (%)
Normal Stress	96	16.7
Mild Stress	98	17.1
Moderate Stress	247	43.0
Severe Stress	107	18.6
Extremely Severe	26	4.5

Among mobile addicts, 43% report moderate stress, further reinforcing the connection between mobile phone addiction and elevated stress levels.

Table 4.15: Anxiety in Addicts

Mobile Addicts	No. of Students	Percentage (%)
Normal Anxiety	24	4.2
Mild Anxiety	7	1.2
Moderate Anxiety	56	9.8
Severe Anxiety	93	16.2
Extremely Severe	394	68.6

A significant proportion of mobile addicts (68.6%) suffer from extremely severe anxiety.

Table 4.16: Depression in Addicts

Mobile Addicts	No. of Students	Percentage (%)
Normal Depression	25	4.4
Mild Depression	40	7.0
Moderate Depression	215	37.5
Severe Depression	189	32.9
Extremely Severe	104	18.1

Among mobile addicts, 37.5% report moderate depression, while 32.9% report severe depression, indicating the serious mental health consequences of mobile phone addiction.

Summary and Conclusion

Summary

The pervasive use of smartphones has become a hallmark of modern society, profoundly influencing various aspects of daily life, including communication, entertainment, and academic performance. However, the growing concern over the potential psychological risks associated with excessive mobile phone use has prompted significant research into its impact, particularly among young adults. This study aimed to explore the prevalence of **mobile phone addiction** and its relationship with **psychological disorders**, specifically **stress**, **anxiety**, and **depression**, among **university students** aged **16 to 35 years**.

A total of **815 university students**, drawn from diverse academic disciplines, participated in the study, which utilized two well-established scales: the **Smartphone Addiction Scale - Short Version (SAS-SV)** and the **Depression, Anxiety, and Stress Scale (DASS-21)**. These tools were chosen for their reliability in measuring mobile phone addiction and assessing psychological distress in the target population. The results revealed that **70.4%** of the sample exhibited signs of mobile phone addiction, with males (**74.5%**) showing a higher dependency than females (**67.4%**).

In terms of the psychological impact, the data indicated a strong association between mobile phone addiction and increased levels of **stress**, **anxiety**, and **depression**. Specifically, **78.4%** of participants experienced **moderate to severe stress**, while **80.8%** reported **severe to extremely severe anxiety**, and a staggering **90.8%** of the sample exhibited **moderate to severe depression**. These findings suggest that excessive mobile phone use may act as a significant risk factor for the development or exacerbation of psychological disorders, potentially leading to detrimental effects on **academic performance**, **social interactions**, and **overall well-being**.

The study's findings are consistent with previous research, which has identified a strong correlation between excessive mobile phone use and various psychological issues, including anxiety, depression, and stress. This reinforces the growing concern about the mental health risks associated with mobile phone addiction, particularly in younger populations who are more vulnerable to the detrimental effects of digital dependency.

Conclusion

The findings of this study underscore the **alarming prevalence** of **mobile phone addiction** among **university students**, with **70.4%** of participants meeting the criteria for addiction, which is significantly linked to elevated levels of **stress**, **anxiety**, and **depression**. The results indicate that mobile phone addiction is not merely a passing trend but rather a significant public health concern, with serious implications for the **psychological health** and **academic success** of university students.

The data revealed that mobile phone addiction is more pronounced in males (**74.5%**) compared to females (**67.4%**), which could indicate gender differences in technology usage patterns and psychological susceptibility. The study found that a substantial portion of the sample—**78.4%**—is suffering from **moderate to severe stress**, **80.8%** from **severe to extremely severe anxiety**, and **90.8%** from **moderate to severe depression**, emphasizing the profound psychological burden mobile phone addiction imposes on students.

These findings suggest that **mobile phone addiction** has become a significant contributor to **psychological distress** in university students, leading to diminished mental health and well-being. As mobile phone use becomes increasingly integrated into daily life, it is crucial to recognize the potential for addiction and its associated risks. The implications of this study highlight the urgent need for a multi-faceted approach to address this growing issue.

Recommendations and Implications for Intervention

Given the significant psychological distress associated with mobile phone addiction, the study advocates for several key **interventions** and **recommendations** to mitigate the adverse effects and promote healthier digital habits among students:

1. **Digital Detox Programs**: Universities and educational institutions should consider implementing structured **digital detox programs** aimed at helping students reduce their screen time and develop healthier relationships with technology. Such programs could include workshops on digital well-being, mindfulness practices, and time management strategies that encourage students to disconnect from their devices.
2. **Mental Health Awareness Campaigns**: Educational institutions should actively engage in **mental health awareness campaigns** that highlight the risks of excessive mobile phone use and encourage

students to seek help if they are experiencing symptoms of anxiety, depression, or stress. These campaigns could include seminars, workshops, and informational materials that provide resources for coping with digital addiction and its psychological consequences.

3. **Cognitive-Behavioral Therapy (CBT)**: As mobile phone addiction often leads to maladaptive behavior patterns, offering access to **Cognitive-Behavioral Therapy (CBT)** could be an effective intervention. CBT has proven to be successful in addressing addictive behaviors and mental health disorders such as anxiety and depression, and could be offered as a therapeutic option for students struggling with mobile phone addiction.
4. **Policy and Institutional Guidelines**: Universities should implement **policies** that promote **responsible mobile phone use** in academic settings, such as restricting the use of phones during lectures, exams, or study sessions. These policies could help reduce distractions, improve focus, and encourage healthier technology habits in students.
5. **Parental and Peer Support**: Universities should encourage a collaborative effort between students, their families, and peer groups to raise awareness about the risks of mobile phone addiction and offer support for those who may be struggling. Peer support programs, mentorship, and family counseling sessions could help students maintain a balance between their academic responsibilities and their digital habits.
6. **Longitudinal Studies and Research**: Further **longitudinal research** should be conducted to better understand the long-term effects of mobile phone addiction on mental health and academic performance. This could provide valuable insights into how addiction develops over time and the most effective ways to intervene before psychological issues become more entrenched.

Future Research Directions

While this study provides valuable insights into the impact of mobile phone addiction on psychological disorders among university students, there are several limitations that should be acknowledged. The study was cross-sectional in nature, meaning it only provides a snapshot of the relationship between mobile phone addiction and mental health at one point in time. Future studies should adopt a **longitudinal design** to examine the long-term effects of mobile phone addiction on mental health and academic success.

Additionally, this study was limited to a specific demographic—university students aged **16 to 35 years**—which may not be representative of the broader population. Future research could expand the sample to include high school students, young professionals, or older adults to determine whether the findings are consistent across different age groups and demographics.

Finally, future studies could explore additional factors that might mediate the relationship between mobile phone addiction and mental health, such as **social media usage**, **sleep patterns**, **coping strategies**, and **personality traits**. Identifying these factors could help in developing more targeted and effective interventions to reduce the psychological impact of mobile phone addiction.

Final Thoughts

The findings of this study contribute significantly to the growing body of literature on **mobile phone addiction** and its impact on **mental health**. As mobile phone use continues to play a dominant role in students' lives, addressing the psychological consequences of excessive use is critical for improving overall **well-being** and **academic performance**. The results call for immediate action from **educators**, **mental health professionals**, and **policy makers** to foster healthier relationships with technology and to prioritize mental health interventions in the digital age.

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