



## Research Article

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## Relationship Between Smartphone Compulsive Usage &amp; Psychological Health Among Savitribai Phule Pune University Students

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**Abstract:** With the rapid growth of smartphone usage in recent years, concerns have arisen regarding its impact on mental health, particularly among young adults. Smartphones have become integral to student's daily lives, serving as tools for communication, learning, and entertainment. The purpose of the study was, to Study the Relationship between Compulsive Smartphone Usage & Psychological Health of the students of Savitribai Phule Pune University (SPPU). For which 80 students from SPPU were selected using Purposive sampling technique. Descriptive Correlational method was administered to find the correlation between Compulsive Smartphone Usage & Psychological Health among students of SPPU. For measuring Compulsive Smartphone Usage, Dr David Greenfield's smartphone compulsion test (2013) was used and to assess the Psychological Health DASS-21 (Depression Anxiety Stress Scale) developed by Lovibond, S.H.& Lovibond, P.F. (1995) was used. The collected data was statistically analyzed using SPSS software. The Mean and standard deviation of Compulsive Smartphone Usage was 8.25(±2.717) and the Mean and standard deviation of Psychological Health was 41.53(±21.092) respectively. The calculated coefficient of correlation value between smartphone compulsion and Psychological Health was 0.381 The results indicate that the calculated significant two-tailed value does show a significant relationship at the 0.05 level of significance ( $p = 0.000$ ) Therefore, it can be concluded that there is significant relationship between Compulsive smartphone usage and Psychological Health among students of Savitribai Phule Pune University.

**Keywords:** Compulsive Smartphone Usage, Psychological health, Depression, Stress, Anxiety

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## INTRODUCTION

In the modern era, technological advancements have significantly transformed human lifestyles, with smartphones playing a pivotal role in this transformation. These devices, initially designed for basic communication, have evolved into multifunctional tools that integrate diverse features, enabling connectivity, education, entertainment, and productivity. As of 2025, over 7.5 billion people globally own smartphones, demonstrating their ubiquity and indispensability (Statista, 2025). However, alongside their numerous advantages, concerns surrounding their excessive usage have grown, particularly regarding their impact on mental health and well-being.

The journey of smartphones began in 1973 with Motorola's introduction of the first mobile phone, marking a new era of telecommunication. IBM's Simon Personal Communicator in 1994 further revolutionized the field by introducing the concept of smartphones, which combined telephony with computing capabilities. Over the decades, these devices have undergone remarkable transformations, integrating high-speed internet, artificial intelligence, and an array of applications. By 2025, smartphones are deeply embedded in daily life, with young adults spending an average of 4–5 hours daily on their devices, reflecting both their utility and potential for overuse (Chen & Pai, 2023).

Compulsive smartphone use, a growing concern, is characterized by an inability to regulate usage, leading to negative outcomes in various domains of life. This behavior has been classified as a form of behavioral addiction, comparable to substance dependence. Studies indicate that individuals with compulsive smartphone use often exhibit symptoms such as anxiety, irritability, and distress when separated from their devices (Kim *et al.*, 2024). Contributing factors include the fear of missing out (FOMO), social validation through likes and comments, instant gratification from engaging apps, and peer influence.

The psychological implications of excessive smartphone use are significant and multifaceted. Stress and anxiety are prevalent among compulsive users due to the constant pressure to remain connected and responsive to notifications (Przybylski & Weinstein, 2023). Depression is another concerning outcome, as studies reveal a strong association between smartphone addiction and depressive symptoms. This can be attributed to disrupted sleep cycles, increased social comparison, and diminished offline interactions (Elhai *et al.*, 2023). Moreover, persistent smartphone use impairs cognitive functions, including attention and memory, and often leads to poor academic performance. Sleep disorders, such as insomnia, are also linked to the blue light emitted by smartphone screens and the habit of late-night usage (Kim *et al.*, 2024).

At Savitribai Phule Pune University (SPPU), smartphones have become an essential part of student’s academic and personal lives. While these devices facilitate learning, communication, and entertainment, they also contribute to a growing concern about behavioral and psychological health. Preliminary observations suggest that compulsive smartphone use is a widespread issue among students, necessitating an in-depth investigation to understand its prevalence and implications.

This study aims to explore the relationship between compulsive smartphone use and psychological health among SPPU students. It employs the Smartphone Compulsive Use Test (SCUT) to measure usage patterns and the Depression, Anxiety, and Stress Scale (DASS-21) to assess mental health outcomes.

**PARTICIPANTS**

The participants for this study were selected from the student population of Savitribai Phule Pune University (SPPU). A total of 80 students, both male and female, were chosen using a purposive sampling technique. This sampling method was employed to ensure that students who had varying levels of smartphone usage were included. Inclusion criteria consisted of being enrolled at SPPU and using a smartphone regularly. The selected participants were students from different departments of Savitribai Phule Pune University and ranged in age from 18 to 35 years. Ethical considerations, such as informed consent and confidentiality, were ensured throughout the study process.

**MATERIALS & METHOD**

This study aimed to explore the relationship between compulsive smartphone usage and psychological health among students at Savitribai Phule Pune University (SPPU). A total of 80 students were selected using purposive sampling, ensuring a diverse sample of individuals with varying levels of smartphone usage. The selected participants were students from different departments of Savitribai Phule Pune University and ranged in age from 18 to 35 years, both male and female participants were included in the study. All participants were regular smartphone users, meeting the inclusion criterion of daily smartphone use. The study adhered to ethical guidelines, with informed consent obtained from all participants, and their confidentiality was ensured.

To assess compulsive smartphone usage, the Smartphone Compulsion Test (SCUT) developed by Dr. David Greenfield in 2013 was utilized. The SCUT evaluates the frequency and intensity of smartphone use, as well as the emotional and social consequences of excessive usage. It measures aspects such as the compulsive need to check the phone, the amount of time spent on it, and the negative impact on daily functioning. For psychological health, the Depression, Anxiety, and Stress Scale (DASS-21) developed by Lovibond, S.H.& Lovibond, P.F. (1995) was employed. This tool consists of 21 items designed to measure the severity of depression, anxiety, and stress symptoms, with higher scores indicating more severe psychological distress.

**RESULTS**

**Table 1: Descriptive Statistics**

	Smartphone Compulsive Usage	Psychological Health
Valid	80	80
Mean	8.25	41.53
Median	8.00	38.00
Std. Deviation	2.717	21.092

**Table 2: Correlation between Smartphone Compulsive Use & Psychological Health**

		Correlations	
		Smartphone Compulsive Use	Psychological Health
<b>Smartphone Compulsive Use Scoring</b>	<b>Pearson Correlation</b>	<b>1</b>	<b>.381</b>
	<b>Sig. (2-tailed)</b>		<b>.000</b>
	<b>N</b>	<b>80</b>	<b>80</b>
<b>Psychological Health</b>	<b>Pearson Correlation</b>	<b>.381</b>	<b>1</b>
	<b>Sig. (2-tailed)</b>	<b>.000</b>	
	<b>N</b>	<b>80</b>	<b>80</b>

As per the above-mentioned tables The Mean and Standard deviation of Compulsive Smartphone Usage was 8.25(±2.717) and the Mean and standard deviation of Psychological Health was 41.53(±21.092) respectively. The calculated coefficient of correlation value between smartphone compulsion and

Psychological Health was 0.381 The results indicate that the calculated significant two-tailed value does show a significant relationship at the 0.05 level of significance (p = 0.000) Therefore, it can be concluded that there is significant relationship between Compulsive smartphone

usage and Psychological Health among students of Savitribai Phule Pune University.

## DISCUSSION

The results of this study suggest a positive correlation between Compulsive smartphone usage and psychological health (depression, anxiety, and stress) among SPPU students. This finding aligns with previous research indicating that excessive smartphone use can negatively impact mental health (Elhai *et al.*, 2023; Kim *et al.*, 2024). The relationship between smartphone addiction and psychological health is complex and multifaceted.

Compulsive smartphone use can lead to disrupted sleep patterns, increased anxiety, and even depression due to social comparison, cyberbullying, and the constant need to be available online (Przybylski & Weinstein, 2023). The constant exposure to notifications and the need for instant gratification can contribute to heightened stress levels and feelings of inadequacy, especially among young adults who are particularly vulnerable to peer influence.

Interestingly, although the correlation was moderate, it was statistically significant, emphasizing that while not all students with compulsive smartphone usage exhibit psychological distress, a significant number do experience adverse effects. Factors like the nature of smartphone usage (e.g., for social media, gaming, or academic purposes) and individual differences in coping mechanisms might influence the degree of psychological impact

## CONCLUSION

The analysis of the data collected through the Smartphone Compulsion Test (SCUT) and the Depression, Anxiety, and Stress Scale (DASS-21) revealed that there is a significant relationship between

compulsive smartphone usage and psychological health among students at Savitribai Phule Pune University (SPPU).

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