



Impact of Mobile Addiction on Mental Health and Quality of Life Among College Students

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ABSTRACT

The present study examined the impact of mobile addiction on mental health and quality of life among college students. With the increasing integration of mobile phones into daily academic and social activities, concerns have emerged regarding excessive mobile use and its potential psychological consequences. The primary objectives of the study were to assess differences in quality of life and mental health between high- and low-mobile-addicted college students. A stratified random sampling technique was employed to select a sample of 100 college students from various colleges in Aurangabad city, Maharashtra. Stratification was based on gender and educational stream to ensure adequate representation. Participants were categorized into high mobile addiction and low mobile addiction groups using a standardized mobile addiction screening tool.

Data were collected using the Mobile Addiction Scale, Quality of Life Scale, and Mental Health Inventory. The independent samples *t*-test was used for statistical analysis. The results revealed a significant difference in Quality of Life between high and low mobile-addicted students, with the low addiction group reporting higher quality of life. Similarly, a highly significant difference was found in Mental Health scores, indicating better mental health among students with low mobile addiction. In both cases, the null hypotheses were rejected at the .01 level of significance. The findings suggest that excessive mobile phone use adversely affects students' psychological well-being and overall quality of life.

Keyword:- *Mobile Addiction, Quality of Life, Mental Health, College Students, Smartphone Use*



Introduction:

Mobile addiction often operationalized as smartphone addiction or problematic smartphone use (PSU) refers to a pattern of compulsive, poorly controlled smartphone engagement that persists despite negative consequences in daily functioning. Among college students, smartphones are deeply embedded in academic coordination, social life, entertainment, and identity expression. While this ubiquitous connectivity can support learning and social support, escalating evidence indicates that addictive or problematic use is associated with worse mental health (e.g., depression, anxiety, psychological distress, stress) and reduced quality of life (QoL), including poorer sleep, impaired concentration, strained relationships, and diminished life satisfaction.

College students may be especially vulnerable due to developmental and contextual factors: new independence, academic pressure, irregular sleep schedules, social comparison in digital environments, and constant access to high-reward apps. Mechanistically, mobile addiction can affect mental health through multiple pathways. First, behavioral reinforcement (variable rewards from notifications, social feedback, and short-form content) can strengthen compulsive checking habits, reducing students' perceived control over use. Second, heavy smartphone involvement can displace restorative behaviors particularly sleep, physical activity, and in-person social interaction thereby increasing psychological strain and emotional dysregulation. Third, persistent online social exposure can heighten social comparison and fear of missing out, potentially aggravating anxiety and depressive symptoms. Fourth, problematic use may contribute to functional impairments (e.g., procrastination and reduced academic performance), which can further reinforce stress and lower self-esteem, creating a self-perpetuating cycle.

Quality of life is a particularly important outcome because it captures broader well-being beyond symptoms encompassing physical health, psychological state, social relationships, and perceived environmental functioning. Empirical studies increasingly report that higher smartphone addiction scores are associated with lower QoL or life satisfaction, indicating that the cost of problematic use extends into students' daily lived experience. To study these relationships, researchers commonly use validated instruments such as the Smartphone Addiction Scale (SAS) and the short form SAS-SV, which provide standardized measurement for addictive patterns of smartphone use (Kwon et al., 2013a, 2013b).



Given rising reliance on mobile technologies in higher education, understanding the impact of mobile addiction on mental health and quality of life among college students has both clinical and institutional significance. Clarifying these links can inform campus mental health strategies, digital well-being interventions, sleep hygiene initiatives, and policy decisions about healthy technology use. This topic also supports prevention: identifying predictors and correlates of problematic use may help universities intervene early, protect students' psychological functioning, and promote sustainable digital habits that support academic success and overall well-being.

Review of Literature:-

Thomé et al. (2011) investigated the relationship between mobile phone use, stress, sleep disturbances, and mental health among young adults, including college students. The study found that excessive mobile phone use was significantly associated with higher stress levels, sleep problems, and depressive symptoms. Frequent accessibility and perceived demands of mobile communication were identified as key stressors. The findings suggested that problematic mobile phone use negatively affects psychological well-being and daily functioning, thereby reducing overall quality of life among students.

Thomé et al. (2012) examined mobile phone dependence and its association with mental health outcomes in young adults. The results revealed that high mobile phone use was linked to symptoms of depression, anxiety, and sleep disorders. The study emphasized that constant connectivity and inability to disengage from mobile devices contribute to psychological strain. The authors concluded that excessive mobile phone use may impair quality of life by disrupting recovery processes and increasing emotional distress among college-aged individuals.

Kwon et al. (2013) developed and validated the Smartphone Addiction Scale (SAS) and examined smartphone addiction in adolescents and young adults. Their findings indicated that higher smartphone addiction scores were associated with poor self-control, anxiety, and disturbances in daily life. The study highlighted that excessive smartphone use interferes with academic performance, social relationships, and emotional well-being. This research provided a standardized framework for assessing mobile addiction and its negative impact on mental health and quality of life.

Demirci et al. (2015) explored the relationship between smartphone use severity, sleep quality, depression, and anxiety among university students. The results demonstrated that increased smartphone addiction was significantly associated with higher levels of



depression and anxiety and poorer sleep quality. The authors noted that impaired sleep mediated the relationship between smartphone addiction and reduced quality of life. The study concluded that problematic smartphone use poses a serious risk to students' mental health and overall well-being.

Montag et al. (2015) examined smartphone addiction from a psychological and neurobiological perspective. Their study found that excessive smartphone use was related to emotional instability, impulsivity, and reduced life satisfaction. The authors suggested that smartphone addiction shares similarities with behavioral addictions and may contribute to emotional dysregulation. The findings supported the view that mobile addiction negatively influences mental health and quality of life, particularly among young adults who rely heavily on mobile technology.

Samaha and Hawi (2016) investigated the relationships among smartphone addiction, stress, academic performance, and life satisfaction in university students. The study revealed that smartphone addiction was positively related to stress and negatively related to life satisfaction. Students with higher levels of smartphone addiction reported poorer mental health and reduced quality of life. The authors concluded that excessive smartphone use undermines students' psychological well-being and emphasized the need for awareness and intervention programs in college settings.

Objective of the study:

- 1) To find out the Quality of Life among high and low mobile-addicted college students.
- 2) To search for Mental Health among high and low-mobile-addicted college students.

Hypotheses:

1. There is no significant difference in Quality of Life between high mobile-addicted and low mobile-addicted college students.
2. There is no significant difference in Mental Health between high mobile-addicted and low mobile-addicted college students.

Research Methodology:

Sample:

The population of the present study comprised college students enrolled at various colleges in Aurangabad city, Maharashtra. A stratified random sampling technique was employed to ensure adequate representation across key demographic variables. The strata were formed based on gender and stream of education.

From this population, a total sample of 120 college students was selected. Participants were screened using a standardised mobile addiction screening tool, based



on which they were categorised into two groups: high mobile-addicted students (n = 60) and low mobile-addicted students (n = 60). The stratification process helped maintain proportional representation of gender and academic streams within each group.

Variable:-

Independent Variable (IV):

- 1) Level of Mobile Addiction (High and Low).

Dependent Variables (DV):

- 1) Quality of Life
- 2) Mental Health

Research Tools for Data Collection:

1) Mobile Addiction Scale (MAS):

Md. Ghazi Shahnawaz, Dr. Nivedita Ganguli, and Mr. Manchong Limlunthang Zou constructed and standardized the “Social Networking Addiction Scale” inventory. It has 32 items and is in the usual Likert format.

2) Quality of Life Scale (QOLS):

The Quality of Life Scale (QOLS) is a psychometric tool designed to assess individuals' perceived well-being across various life domains. It includes 42 items related to life satisfaction, goals, spirituality, happiness, emotional regulation, stress reduction, physical health, personal development, and self-care. Initially tested on 250 individuals, the final version was validated on 1,000 teachers, showing strong internal consistency with a high Cronbach's alpha. Validity was confirmed through expert reviews, and norms are provided using z-scores to categorize Quality of Life levels from extremely low to extremely high.

3) Mental Health Inventory (MHI):

The mental health inventory was developed by Dr. Jagdish and Dr. A.K. Srivastava. It consists of 56 items, each offering four response options: 1. Almost always true, 2. Sometimes true, 3. Rarely true, and 4. Almost never true. The reliability of the inventory was assessed using the split-half method with an odd-even procedure, resulting in an overall reliability coefficient of 0.73. Additionally, the construct validity of the inventory was evaluated by calculating the correlation between scores on the Mental Health Inventory and the General Health Questionnaire (Goldberg, 1978), which yielded a correlation coefficient of 0.54.

Statistical Techniques for Data Analysis:

t test was used.

Statistical Analysis and Discussion

Table No-1

Mean, standard deviation, t-value of Quality of Life and Mental Health among high and low Mobile Addiction College Students.

Dimension	High Mobile Addiction (N=60)		Low Mobile Addiction (N=60)		df	't'
	Mean	SD	Mean	SD		
Quality of Life	72.45	5.09	79.11	4.68	118	7.46**
Mental Health	160.75	6.10	174.81	5.80	118	12.93**

Sig – 0.05 = 1.96, 0.01**=2.62*

Quality of Life - The analysis revealed a statistically significant difference in Quality of Life scores between high mobile-addicted students ($M = 72.45, SD = 5.09$) and low mobile-addicted students ($M = 79.11, SD = 4.68$). The obtained t value was $t(118) = 7.46, p < .01$. Since the calculated t value exceeded the critical value at the .01 level, the null hypothesis stating that there is no significant difference in Quality of Life between the two groups was rejected.

This finding indicates that students with lower levels of mobile addiction experience significantly better quality of life compared to those with higher levels of mobile addiction. Excessive mobile use may negatively affect physical health, social relationships, emotional well-being, and daily functioning, thereby lowering overall quality of life. This result is consistent with prior research suggesting that problematic smartphone use is associated with reduced life satisfaction and impaired well-being (Demirci et al., 2015; Samaha & Hawi, 2016).

Mental Health - Similarly, a highly significant difference was observed in Mental Health scores between high mobile-addicted students ($M = 160.75, SD = 6.10$) and low mobile-addicted students ($M = 174.81, SD = 5.80$). The obtained t value was $t(118) = 12.93, p < .01$. As the calculated t value was substantially higher than the critical value at the .01 significance level, the null hypothesis related to mental health was also rejected.



These results suggest that high mobile addiction is associated with poorer mental health outcomes, including higher levels of psychological distress, emotional instability, and reduced psychological well-being. Excessive engagement with mobile devices may contribute to anxiety, depressive symptoms, sleep disturbances, and reduced coping capacity, thereby adversely affecting students' mental health. The present findings align with previous studies that report a strong association between smartphone addiction and poor mental health among college students (Elhai et al., 2017; Thomée, 2018).

Conclusions:-

- 1) College students with high mobile addiction exhibited significantly lower Quality of Life compared to students with low mobile addiction, indicating that excessive mobile use adversely affects overall well-being and daily functioning.
- 2) College students with high mobile addiction showed significantly poorer Mental Health than those with low mobile addiction, suggesting that problematic mobile use is associated with increased psychological distress and reduced mental well-being.

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