



**PROBLEMATIC SMARTPHONE USE AND PSYCHOLOGICAL WELL-BEING
AMONG COLLEGE STUDENTS OF SAMASTIPUR**

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Abstract

The fast growth of smartphones has significantly transformed the lifestyle of young people, particularly college students. Smartphones indeed provide academic, social, and informational benefits, but their excessive use has raised concerns regarding psychological well-being. The present study intended to examine the relationship between problematic smartphone use and psychological well-being among undergraduate students in Samastipur town. A total of 148 students from different academic disciplines participated in the study. Problematic smartphone use was measured using the Kwon et al. (2013) Smartphone Addiction Scale (Short Version), and psychological well-being was measured using Ryff's Psychological Well-Being Scale (Ryff and Keyes, 1995). Pearson's product-moment correlation analysis revealed significant negative correlations between problematic smartphone use and overall psychological well-being. Significant negative associations were also observed with autonomy, personal growth, environmental mastery, purpose in life, and self-acceptance, whereas the association with positive relations was negative but not statistically significant. The findings show that higher levels of problematic smartphone use are linked with lower psychological functioning among college students. This study highlights the urgent of balanced digital usage and self-regulation strategies. Social and institutional interventions may be initiated to promote psychological well-being and raise awareness to limit screen time and smartphone dependency among youth. Key terms: Smartphone addiction, psychological well-being, autonomy, environmental mastery

Introduction

Our world is changing rapidly due to new advancements in technology, particularly in information and communication technology. We are witnessing a more advanced and competitive scenario day by day. It is almost impossible for anyone to live a modern social life without technological equipment. The smartphone is a good example (Aljomaa et al, 2016; Emanuel et al, 2015).

Smartphones have become indispensable tools in the lives of people in modern society. With its small and convenient size, wireless connectivity, and large data storage capacity, the smartphone can be used as a minicomputer. It provides a wide range of functions and applications to access information, entertainment, work, study, socialise, and engage in leisure activities anywhere and anytime. It has played a vital role in keeping family members and friends connected, opening new avenues of entertainment and enhancing academic knowledge

(Durak, 2019). A new alternative to the computer has emerged for households in the lower-income group. In contrast, access to smartphones appears to be universal across households regardless of gender, race, ethnicity, and socioeconomic background (Anderson et al., 2018). It is, therefore, not surprising that with higher rates of smartphone ownership among younger groups, there has been a swift increase globally in recent years (Anderson et al., 2018). Globally, the number of smartphone users is at present 4.88 billion, which means that 60.42% of the world's population owns a smartphone. In terms of the number of phones, the number of active subscriptions of smartphones is 7.21 billion. This number reaches 8.31 billion when feature mobile phones are included. The number of smartphone users has grown tremendously in the last five years alone. From 2019 to 2024, the number of smartphone owners has increased by 114.97%, with a total of 4.88 billion users this year. Smartphone ownership is growing at a very fast rate, and currently, approximately about 60% of the global population owns a smartphone, up from 34% in 2019 (Turner, 2025).

Smartphones have made the lives of people in modern society easier and better in many ways; even a less informed person can tell many advantages of their use. Several researchers have found that excessive uses of smartphones leads to poor physical health, work, study, academic activities, social relationships and psychological well-being (Arpaci, 2017; Lin et al., 2014). Due to its features, the use of smartphones is increasing day-by-day among people, especially adolescents and young people (Kumcagiz, 2019). As a result, smartphone use has become an obsession among adolescents and young people. This situation can be interpreted as smartphone obsession, addiction, or problematic smartphone use (Goswami & Deshmukh, 2023).

Studies have shown that excessive uses of smartphones is related to neck, arm, and shoulder pain (Elhai et al., 2017), difficulty in concentration (Thomee et al., 2011), and physical inactivity (Fennell et al., 2019). Excessive smartphone use has been linked to worsening of students' academic performance (Samaha and Hawi, 2016) and personal relationships (Seo et al., 2016), as well as increased procrastination (Rozgonjuk et al., 2018). Psychologically, excessive use of smartphones has been connected to anxiety, stress, burnout and depression (Elhai et al., 2017; Cao et al., 2018).

Psychological well-being is not simply the absence of negative psychological symptoms such as anxiety, depression, and anger (Yilmaz, 2023), it is also linked to positive self-understanding and positive social relationships (Akin, 2010). In other words, psychological well-being can be defined as a person's ability to express own satisfaction without allowing others to influence the positive emotions experience (Diener et al., 2003). the dimensions of psychological well-being are self-acceptance, personal growth, autonomy, positive relationships with others, mastery over the environment, and purpose in life (Ryff, 1989).

In India, we have witnessed a rapid increase in smartphone usage over the past decade has occurred in our society. A large segment of the young population is now acquainted with using smartphones for social interaction, entertainment, shopping, and leisure activities. Additionally, the shift to online learning by educational institutions during the COVID-19 pandemic and the subsequent rapid growth of online coaching institutes have led Indian students to seek online education for admission to a variety of vocational courses and other career-related preparations, which require students to complete most of the lessons and

curriculum on their smartphones (Priya & Subramaniyam, 2022). As a result, smartphones have become a fundamental part of the daily lives of Indian adolescent students as well, influencing their cognition, behaviour, and habits (Khare & Qasim, 2019; Davey et al, 2018; Basu et al., 2018).

It is, therefore, urgent to study the impact of smartphone use on psychological well-being in the Indian context, so that the quality of educational activities of students and their psychological well-being may be improved. This study aims to ascertain the level of problematic smartphone use among Indian adolescent students and its effect on their psychological well-being and other related factors.

Methods

Sample

A study was conducted on undergraduate students from different colleges in Samastipur town. In the present study, a total of 148 students from different disciplines were selected. They were requested to fill out a questionnaire during their leisure time. The purpose of the survey was explained to the students, and volunteer students were asked to answer the survey.

Measures

A schedule was prepared comprising the following tools:

a. Demographic Information:

In this section, respondents were asked to record their responses to items such as age, sex, type of family, place of residence, and socio-economic status.

b. Smartphone Addiction Scale:

The smartphone addiction was measured by the Smartphone Addiction Scale (SAS-SV). This scale was advanced by Kwon et al. (2013). It is a 10-item questionnaire, and each is measured on a 5-point Likert scale. The higher scores obtained on this scale are indicative of high smartphone addiction.

c. Psychological Well-being Scale:

The psychological well-being of the respondents was assessed using Ryff's Psychological Well-being Scale (Ryff and Keyes, 1995). This is an 18-item self-report instrument. It measures six dimensions of psychological well-being: autonomy, mastery over the environment, self-acceptance, positive relationships with others, personal growth and purpose in life. Each item of this scale is rated on a 5-point Likert scale. The obtained scores range from 1 to 5 (strongly disagree to strongly agree).

Results and Interpretation

To ascertain the association between excessive smartphone use and psychological well-being, Pearson's product-moment correlation coefficients were computed. The results are presented in Table-1.

Table-1

The relation between smartphone uses and psychological well-being

Correlations								
	Autonomy	Environmental Mastery	Personal Growth	Positive Relation	Purpose in Life	Self-acceptance	Overall Psychological Well-being	Smartphone Addiction
Autonomy	1	.075	.324**	-.119	.190*	-.043	.489**	-.214**
Environmental Mastery	.075	1	.144	.062	-.014	.254**	.454**	-.235**
Personal Growth	.324**	.144	1	-.010	.306**	.175*	.686**	-.270**
Positive Relation	-.119	.062	-.010	1	.029	-.025	.296**	-.100
Purpose in Life	.190*	-.014	.306**	.029	1	.255**	.590**	-.186*
Self-acceptance	-.043	.254**	.175*	-.025	.255**	1	.509**	-.198*
Overall Psychological Well-being	.489**	.454**	.686**	.296**	.590**	.509**	1	-.395**
Smartphone Addiction	-.214**	-.235**	-.270**	-.100	-.186*	-.198*	-.395**	1

*. Correlation is significant at the 0.05 level **. Correlation is significant at the 0.01 level.

Problematic smartphone use was negatively associated with most dimensions of psychological well-being. More specifically, problematic smartphone use was negatively correlated with dimensions of psychological well-being like Autonomy ($r = -.214, p < .01$), Environmental Mastery ($r = -.235, p < .01$), Personal Growth ($r = -.270, p < .01$), Purpose in Life ($r = -.186, p < .05$), and Self-Acceptance ($r = -.198, p < .05$). The smartphone use was also negatively associated overall Psychological Well-Being ($r = -.395, p < .01$). It indicates a significant inverse correlation. Finding advocates that higher levels of problematic smartphone use are related to lower levels of most of the components of psychological well-being of college students. The only positive relation dimension of psychological well-being was negative. However, the obtained correlation was found statistically insignificant ($r = -.100, p > .05$). It

is fact that higher use of smartphones is linked with reduced autonomy, environmental mastery, purpose in life, personal growth and self-acceptance of college students.

Discussion

This study assessed the association between smartphone use and psychological well-being among students. The findings revealed a significant and negative association between problematic smartphone use and overall psychological well-being, as well as its most of the dimensions. These results provide us an important understanding of the psychological implications of excessive smartphone use among college students.

The negative correlations between smartphone use and Autonomy ($r = -.214, p < .01$) and Environmental Mastery ($r = -.235, p < .01$) revealed that students with higher smartphone addiction tendencies may experience reduced independence and diminished control over their daily activities. This finding is aligned with Deci & Ryan's (2000) self-determination theory. It states that autonomy is a fundamental psychological need. Excessive smartphone use may undermine autonomous functioning by promoting compulsive behaviour. It also reduces effective time management and environmental control.

Significant negative associations were emerged between problematic smartphone use and personal growth as well as purpose in life. It indicates that excessive smartphone engagement may hamper developmental progress and goal orientation. Adolescence is a crucial period for identity formation and personal development. Erik Erikson's theory of psychosocial development states adolescents strives to establish identity and direction. Excessive smartphone use may distract students from academic, social, and personal development that promotes growth and purpose in life. Similar studies have also reported that excessive smartphone use is linked with lower academic engagement and life satisfaction (Samaha & Hawi, 2016).

Self-Acceptance was negatively correlated with excessive smartphone use. It proposes that students who use smartphones excessively may have lower levels of self-esteem. Staying on digital platforms may minimise levels of satisfaction and self-worth. Similarly, the negative relationship between excessive smartphone uses and positive relationships affects intrapersonal well-being dimensions more strongly.

The study also found a significant negative relationship between problematic smartphone use and overall psychological well-being. This reveals that higher levels of maladaptive smartphone engagement are associated with lower levels of psychological functioning. This finding is somewhat similar to previous research. The excessive use of smartphones is associated with lower well-being, increased stress, anxiety, and depressive symptoms. Kwon In-Soo and colleagues (2013) demonstrated that problematic smartphone user report poorer psychological adjustment. Similarly, Twenge et al. (2018) suggested that increased screen time is negatively associated with psychological well-being among adolescents.

In India, we have witnessed rapid digitalisation and increased smartphone accessibility in recent years. It has significantly transformed the adolescent's daily life. Smartphones are indeed an important digital platform that provides and expands educational and social knowledge. However, it also disrupts academic activities, interaction with family member, and psychological balance, if it is not properly used.

Conclusion

Findings clearly indicate that problematic smartphone use is significantly and negatively associated with psychological well-being among students. Higher smartphone dependency is associated with lower autonomy, reduced environmental mastery, diminished personal growth, weakened purpose in life, and lower self-acceptance. These results highlight the importance of promoting balanced digital usage, self-regulation skills, and well-being-focused interventions in educational settings. Several preventive programs, such as digital literacy programs, mindfulness training, and counselling services, may be helpful to overcome the adverse psychological effects of excessive smartphone use.

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