

Research Paper

Impact of Excessive Smartphone Use on Psychological Well-Being

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ABSTRACT

Excessive Smartphone Use is a growing concern globally, with significant implications for mental and emotional health. This study investigates the correlation between smartphone overuse and psychological well-being among adults aged 20–60. Using validated scales—Mobile Phone Problematic Use Scale (MPPUS-10) and Ryff's Psychological Well-being Scale—the study involved 65 participants selected through convenience sampling. Results revealed a statistically significant negative correlation ($r = -.707, p < .001$) between the two variables. Women reported slightly higher well-being scores than men, though the difference was not statistically significant. The findings highlight the urgent need for strategies to promote balanced technology use and enhance psychological resilience.

Keywords: *Excessive Smartphone Use, Psychological Well-being, Gender Differences, Technology Addiction*

Smartphones are integral to modern life, offering unprecedented convenience and connectivity. Yet, their excessive use has raised concerns about their impact on physical and psychological health. Research has shown that smartphone overuse disrupts sleep cycles, increases anxiety and depression, and hinders interpersonal relationships (Sharma & Sharma, 2019). In India, where smartphone penetration has soared to over 760 million users, these issues are particularly pressing (Asher, 2020).

Psychological well-being is a key measure of mental health, encompassing dimensions such as self-acceptance, autonomy, and purpose in life (Ryff, 1989). This study explores the adverse effects of smartphone dependency on these dimensions, addressing a gap in the literature on smartphone addiction in Indian contexts.

Carol Ryff's six-factor model provides a robust framework for understanding psychological well-being. It includes:

1. Autonomy: Independence in decision-making.
2. Environmental Mastery: Effective management of life's challenges.
3. Self-Acceptance: A positive view of oneself.
4. Personal Growth: Ongoing development.
5. Purpose in Life: Having meaningful goals.
6. Positive Relationships: Forming fulfilling connections with others.

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Smartphone Overuse

Smartphones have become indispensable tools, offering convenience and connectivity. However, excessive use has raised concerns about its impact on mental health. Problematic smartphone use often referred to as excessive or addictive use has been linked to anxiety, depression, and impaired social functioning (Elhai et al., 2019). While some researchers argue that smartphone addiction does not meet the criteria for true addiction due to the lack of severe physical consequences (Panova & Carbonell, 2018), the term "problematic smartphone use" is widely accepted.

Research highlights several negative consequences of excessive smartphone use. It is associated with deficits in attention, inhibitory control, and increased activity in the prefrontal cortex (Chen et al., 2016; Hadar et al., 2017)

Research in India

Indian studies emphasize the adverse effects of smartphone overuse on mental health and sleep quality. For instance, Uniyal and Tiwari (2020) found that college students with problematic smartphone use experienced poorer sleep quality. Similarly, Basu et al. (2018) reported addiction-like behaviors among medical students in Delhi, highlighting the growing prevalence of smartphone dependency in academic settings.

Smartphone use and psychological well being

The psychological impact of smartphone use during the COVID-19 lockdown was also explored in a large-scale study by Grover et al. (2020). With a sample size of 1,871 respondents, the study revealed that prolonged smartphone use during lockdown periods contributed to heightened anxiety, stress, and symptoms of common mental disorders.

Another study examined the relationship between internet addiction and psychological well-being among Indian adolescents. Sharma and Sharma (2019) found that excessive internet use, facilitated by smartphones, negatively correlated with psychological well-being. Adolescents with higher levels of internet addiction reported feelings of loneliness, reduced self-esteem, and difficulties in maintaining social relationships.

Research Problem

While global studies highlight the impact of smartphone addiction, limited research focuses on its specific effects on psychological well-being, particularly in India. This study seeks to bridge that gap by analyzing how excessive smartphone use undermines psychological resilience.

Objectives

1. To examine the correlation between excessive smartphone use and psychological well-being.
2. To explore gender-based differences in psychological well-being.

Hypotheses

- **H1.** There is a negative correlation between Excessive Smartphone Use and Psychological Well Being.
- **H2.** There is a significant difference in Psychological Well Being among males and females.

METHODOLOGY

Sample

The study included 65 participants aged 20–60 years, selected through convenience sampling.

Inclusion Criteria: Participants aged 20–60 years, from middle-class families in Uttar Pradesh and Delhi NCR, with at least an intermediate education level.

Exclusion Criteria: Participants outside the specified age range, from other socioeconomic backgrounds, or with less than an intermediate education were excluded. Participants, who use their phones less than 3 hours a day, were also excluded.

Instruments

Ryff's Psychological Well-Being Scale (RPWBS):

- A 42-item version covering six dimensions: autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance.
- Responses were scored on a 7-point Likert scale.

Mobile Phone Problematic Use Scale-10 (MPPUS-10):

A 10-item scale assesses symptoms of problematic smartphone use, including craving and withdrawal.

Procedure

Participants completed a Google Form survey distributed via WhatsApp or email. Responses were analyzed using SPSS.

Ethical Considerations

Informed consent was obtained, and confidentiality was maintained.

RESULTS

- To find the association between Excessive Smartphone Use and Psychological Well Being, we analyzed our data through correlation analysis and independent Sample t test with the help of SPSS software. We found that there is a negative correlation between these two variables. This shows that there is a significant relationship between excessive smartphone use and psychological well-being and an increase in MPPUS score would lead to a lower PWB in the participants.

Correlation Analysis

Pearson's correlation revealed a highly negative and statistically significant relationship between excessive smartphone use and psychological well-being ($r = -.707$, $p < .001$). hence, H1 was accepted.

	Mean	Standard deviation	N
MPPUS	47.3231	20.64590	65
Psychological Well Being	126.8154	49.59016	65

		MPPUS	Psychological Well Being
MPPUS	Pearson Correlation	1	-.707**
	Sig. (2 - tailed)		.000

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	Levene's Test for Equality of Variances		t-test for Equality of Means							
	f	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
PWB	Equal variances assumed	0.107	0.745	0.153	63	.879	1.93590	12.65238	-23.24787	27.21966
	Equal variances not assumed			55.371		.878	1.93590	12.53840	-23.18784	27.05963
				0.154						
	N	65		65						
PWB	Pearson Correlation	-.707**		1						
	Sig. (2 - tailed)	.000								
	N	65		65						

An independent sample test was conducted to compare the psychological well-being for Male and Female. There were no significant differences [$t(df) = 63, p > .001$] in scores for group 1 and group 2, although mean score for Female ($m = 127.5897, S.D = 50.84068$) was higher than Male ($m = 125.6538, S.D = 48.62423$). The magnitude of the differences in the means (mean difference = 1.93590, 95%, CI = -23.34787 to 27.21966) was very small. Hence H_2 was rejected.

DISCUSSION

This study confirms a significant negative correlation between excessive smartphone use and psychological well-being. The findings align with prior research linking smartphone overuse to mental health issues such as anxiety and depression (Thomé et al., 2011). Younger adults are particularly vulnerable, as excessive use can hinder social interactions and sleep quality (Rotondi et al., 2017).

Interventions such as mindfulness training and digital detox programs could mitigate these effects. Further research is needed to explore the long-term impact of smartphone overuse.

CONCLUSION

This study highlights the detrimental effects of excessive smartphone use on psychological well-being among adults aged 20–60 years. While no significant gender differences were found, the negative correlation underscores the importance of promoting balanced smartphone use.

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Conflict of Interest

The author(s) declared no conflict of interest.

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