

# An Empirical Investigation into the Association Between Personality Dimensions, Dissociation and Smartphone Addiction Among Young Adults in India

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**Abstract:** The present study examined the relationship between personality traits, dissociative experiences, and smartphone addiction among young adults. A correlational research design was employed using standardized measures, including the Smartphone Addiction Scale (SAS), Problematic Use of Mobile Phone Scale (PUMP), and NEO Five-Factor Inventory (NEO-FFI). Results indicated that age was weakly negatively correlated with smartphone addiction, suggesting higher vulnerability among younger individuals (18-29 years). The dissociative experiences of absorption and overall dissociation showed significant positive correlations with smartphone addiction. The Personality traits that were associated with dissociation were neuroticism showing a positive relationship and agreeableness showing a negative relationship. However, personality traits demonstrated minimal direct association with smartphone addiction. The findings are suggestive that the cognitive-emotional vulnerabilities, particularly dissociative tendencies such as absorption, play a more significant role in smartphone addiction than personality traits. The study highlights the importance of psychological processes underlying addictive smartphone use.

**Keywords:** Smartphone Addiction, Personality Traits, Young Adults.

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## I. INTRODUCTION

The rapid proliferation of smartphones has significantly transformed the daily functioning, particularly among young adults. While smartphones provide convenience and connectivity, excessive use has been associated with behavioural addiction, emotional dysregulation, and impaired functioning. Smartphone addiction has increasingly been conceptualized as a behavioural addiction characterized by compulsive use, withdrawal, and loss of control (Billieux et al., 2015). This is why it is often compared to gambling or internet gaming disorders. Interestingly, young adults are predominantly susceptible because smartphones are severely integrated into their social lives, education, and entertainment. The line between “essential use” and “problematic use” is fuzzy, which makes it harder to distinguish when usage becomes detrimental.

Previous research suggests that psychological vulnerabilities, rather than demographic factors alone, play a central role in problematic smartphone use (Elhai et al.,

2017). One such vulnerability is dissociation, particularly cognitive absorption, which confirms deep immersion in internal or external experiences (Agarwal & Karahanna, 2000). Individuals high in absorption may become extremely involved with digital surroundings, leading to addictive usage patterns.

Personality traits, especially neuroticism and agreeableness, have also been linked to dissociative experiences. Neuroticism reflects emotional instability, whereas agreeableness represents interpersonal warmth and cooperation. Studies indicate that dissociation is positively associated with neuroticism and negatively associated with agreeableness (De Pasquale et al., 2020; Lyssenko et al., 2021).

However, findings on the direct relationship between personality traits and smartphone addiction remain inconsistent. This study aims to clarify these relationships by examining the interplay between personality, dissociation, and smartphone use.

## II. METHOD

### ➤ *Participants*

The study included 256 young adults inclusive of both the genders selected in a university setting. Inclusion criteria involved individuals within the young adult age range who had their own smartphone and regularly used smartphone for their daily activities. Exclusion criteria involved the usage of social media on laptops, tablets and personal computers only, score above the cut off range on GHQ—12 and any debilitating Physical / Psychological illness or condition requiring prior treatment.

### ➤ *Measures*

- Smartphone Addiction Scale (SAS) (Kwon et al., 2013)
- Problematic Use of Mobile Phone Scale (PUMP) (Merlo, 2013)
- Dissociative Experience Scale (DES) (Carlson and Putnam, 1993)
- NEO Five-Factor Inventory (NEO-FFI) (Costa & McCrae, 2003)
- General Health Questionnaire- 12 (GHQ-12)

### ➤ *Procedure*

Participants who provided a written informed consent and completed the self-report questionnaires. Ethical approval was obtained prior to data collection.

### ➤ *Statistical Analysis*

Pearson product-moment correlation analysis was conducted to examine relationships among variables using the SPSS-20.

## III. RESULTS

Results indicated a weak negative correlation between age and smartphone addiction Scale (SAS:  $r = -.13$ ) as well as problematic mobile phone use scale (PUMP:  $r = -.10$ ), suggesting that younger individuals tend to report slightly higher levels of problematic smartphone use.

A significant positive correlation between absorption and smartphone addiction scale(SAS),  $r = .23$ ,  $p < .05$ , suggesting that individuals who experience higher levels of engagement in internal experiences are more likely to exhibit addictive patterns of smartphone use.

The overall dissociative experiences scale score (all factors combined) was positively correlated with smartphone addiction,  $r = .23$ ,  $p < .01$ , indicating that greater dissociative tendencies are associated with increased smartphone addiction.

In contrast, dissociation showed no significant relationship with problematic mobile phone use (PUMP).

Results indicated a significant positive correlation between total dissociative experiences and neuroticism,  $r = .19$ ,  $p < .05$ , suggesting that individuals with higher emotional instability are more likely to report dissociative tendencies.

Additionally, a significant negative correlation was found between total dissociative experiences and agreeableness,  $r = -.19$ ,  $p < .05$ , indicating that lower interpersonal warmth and cooperativeness are associated with higher dissociation.

Similarly, a significant negative correlation was observed between total dissociative experiences (all factors combined) and agreeableness ( $r = -.18$ ,  $p < .05$ ), indicating that overall dissociation is higher among individuals with lower agreeableness.

However, no significant correlations were observed between personality traits and smartphone addiction, suggesting minimal role of personality traits in predicting smartphone addiction in this sample. This aligns with research (e.g., Elhai et al., 2017; Billieux et al., 2015) showing that psychological vulnerabilities matter more than broad personality traits.

## IV. DISCUSSION

The findings highlight a negative correlation between age and smartphone addiction. This pattern is consistent with previous research. For instance, Kwon et al. (2013) reported that younger individuals exhibit higher vulnerability to smartphone addiction. Similarly, Sunday et al (2021) found that younger adults demonstrate greater problematic smartphone use, potentially due to increased engagement with social media and higher impulsivity. Furthermore, Elhai et al. (2017) highlighted that younger age is associated with increased emotional reliance on smartphones and maladaptive usage patterns.

Excessive smartphone use has also been shown to contribute to increased dissociative symptoms, particularly absorption, suggesting that prolonged screen exposure may reinforce dissociative tendencies (Cannito et al 2022 and Barnes et al., 2019). The findings highlight those dissociative experiences, particularly absorption, are key predictors of smartphone addiction. This aligns with the theoretical framework of cognitive absorption, which conceptualizes that immersive engagement with technology functions as a key mechanism to the underlying excessive and potentially addictive usage patterns (Agarwal & Karahanna, 2000).

The positive association between dissociation and neuroticism suggests that emotionally instable individuals may be more predisposed to dissociative tendencies. Similarly, the negative association with agreeableness reflects interpersonal detachment and reduced social connectedness (Spindler et al, 2003, Giesbrecht et al., 2008, De Pasquale et al., 2019, Lyssenko et al., 2021). Depersonalization, in particular, has been linked to emotional detachment and impaired social connectedness, which may explain its inverse relationship with agreeableness.

Importantly, personality traits did not show a strong direct relationship with smartphone addiction. This aligns with prior research indicating that psychological vulnerabilities such as emotional dysregulation and

immersive engagement are more critical than broad personality traits (Elhai et al., 2017; Billieux et al., 2015).

## V. CONCLUSION

The study concludes that smartphone addiction is primarily driven by dissociative processes, particularly absorption, rather than demographic or personality variables. Personality traits influence addiction indirectly through their relationship with dissociation. These findings emphasize the importance of targeting cognitive and emotional processes in interventions for smartphone addiction.

### ➤ Declaration of Generative AI and AI-Assisted Technologies in the Manuscript Preparation Process

During the preparation of this work the author(s) Chat GPT in order to rephrase the content for better language. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article.

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