



RESEARCH ARTICLE



The relationship between trait mindfulness and problematic smartphone use: the serial mediation role of difficulties with emotion regulation and fear of missing out

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ABSTRACT

Problematic smartphone use (PSU) has emerged as a widespread behavioural concern, particularly among university students. The present study employed a preregistered design to ensure analytic transparency and confirmatory hypothesis testing, examining a serial mediation model under which difficulties with emotion regulation and fear of missing out (FOMO) explain the association between trait mindfulness and PSU in a sample of 406 Spanish university students. Participants completed validated self-report measures of trait mindfulness, emotion-regulation difficulties, FOMO and PSU. Data were analysed using correlation analyses and serial mediation modelling with bootstrapping procedures. The results reveal a negative association between trait mindfulness and PSU, supporting its role as a protective factor. FOMO emerged as a significant mediator in this relationship, whereas difficulties with emotion regulation did not have a significant direct mediating effect. However, a significant serial mediation pathway was identified: Higher levels of trait mindfulness were associated with fewer emotion-regulation difficulties, which, in turn, predicted lower FOMO, ultimately giving way to reduced PSU. This study contributes to a more integrative understanding of PSU by identifying key mediating mechanisms and supporting the development of interventions targeting mindfulness, emotion regulation, and FOMO in university populations.

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KEYWORDS

Trait mindfulness; emotion regulation; fear of missing out; problematic smartphone use; mediation

Introduction

The widespread integration of smartphones into daily life has profoundly transformed people's communication, social interactions and access to information. Alongside these benefits, however, empirical evidence suggests that a substantial proportion of the population has developed problematic smartphone use (PSU), characterised by poor control over usage, persistent preoccupation, withdrawal-like symptoms and functional impairment in academic, occupational and/or interpersonal settings (Billieux et al., 2015;

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