

ASSOCIATION BETWEEN SMARTPHONE ADDICTION AND ATTENTION PERFORMANCE

Taylan Tanışan¹, Süheyla Ünal²

¹*Department of Psychiatry, Bursa Yüksek İhtisas Eğitim ve Araştırma Hastanesi, Bursa, Türkiye*

²*Department of Psychiatry, Bursa Şehir Hastanesi, Bursa, Türkiye*

BACKGROUND AND AIM: Smartphone addiction (SA) is a form of behavioral addiction that has become widespread with technological developments and is associated with negative psychological, physical, and cognitive effects. This study aimed to evaluate the relationship between SA, increased screen time, and attention performance.

METHODS: The study included 123 healthy volunteers aged 18–35 years with no known psychiatric disorders. Participants were divided into three groups based on their daily average smartphone screen time and clinical diagnosis of addiction: low screen time (<3 hours), high screen time (>3 hours), and SA group. All participants completed the Smartphone Addiction Scale–Short Form (SAS-SF), Smartphone Overuse Screening Questionnaire (SOS-Q), Depression Anxiety Stress Scales-21 (DASS-21), Barratt Impulsiveness Scale–Short Form (BIS-11-SF), Adult ADHD Self-Report Scale (ASRS), and Maslach Burnout Inventory (MBI). Attention performance was assessed using the Stroop Test TBAG Form, Trail Making Test, Cancellation Test, and Digit Span Test. Objective smartphone usage data, including daily average screen time and number of phone unlocks, were recorded. Ethical approval was obtained from Bursa City Hospital Ethics Committee (Decision Number: 2024-21/15).

RESULTS: No significant differences in attention performance were observed among the groups. However, the SA group showed significantly higher daily screen time ($p<0.001$) and phone-checking frequency ($p<0.001$) than the other groups. The SA group also scored significantly higher in addiction ($p<0.001$), impulsivity ($p<0.047$), and attention deficit symptoms ($p<0.024$). Stress levels were significantly higher in the high screen time group compared to the low screen time group ($p<0.025$). Correlation analyses revealed that problematic or addictive smartphone use was positively associated with depression, stress, impulsivity, and attention deficit symptoms.

CONCLUSIONS: SA was not associated with impaired attention performance in this sample. Nevertheless, SA was strongly related to increased screen time, impulsivity, attention difficulties, and higher stress levels. These findings suggest that interventions should focus on improving efficient smartphone use and addressing accompanying psychiatric symptoms rather than solely reducing screen time.

Keywords: Addiction medicine, addictive behavior, attention, smartphone, smartphone addiction, technology addiction