



The Impact of Mobile Phone Use on Cognitive Function

Kubra Tatar, Nerijus Eimantas 

Lithuanian Sports University, Kaunas, Lithuania

Background and Aim. The widespread use of social media and short-form video platforms has raised concerns regarding their potential impact on cognitive health in young adults, including mental fatigue, reduced cognitive flexibility, sleep disturbances, and depression. This study aimed to investigate the immediate effects of social media scrolling and reading printed text on cognitive function in young adults.

Methods. Nineteen participants (mean age 23.8 ± 2.7 years; 9 females and 10 males) were included. Cognitive performance was assessed using the Automated Neuropsychological Assessment Metrics (ANAM) battery. The 2-Choice Reaction Time and Switching Task tests were administered in a randomised order before and after each condition across three consecutive days (control, social media scrolling, and reading). The social media and reading conditions each lasted 15 minutes. Written informed consent was obtained from all participants. Ethical approval was granted by the Research Ethics Committee (Protocol No. SMTEK-6). No external funding was received.

Results. Reaction time decreased significantly following both the social media ($p < 0.021$) and reading ($p < 0.039$) conditions, with significant differences observed between conditions in post-task measures ($p < 0.003$). The total number of correct responses increased significantly only after the social media condition ($p < 0.012$), with a significant difference between conditions ($p < 0.015$).

Conclusions. Both social media use and reading were associated with improvements in reaction time, with greater gains observed after reading. In contrast, social media use was associated with greater improvements in response accuracy. These findings suggest differential short-term effects of digital and traditional cognitive engagement on cognitive performance.

Keywords: Reaction time; mobile phone usage; short-form video; social media; young adults

Funding and Disclosures: The authors declare no external funding and no conflicts of interest.

Informed Consent Statement: This study was approved by the Ethics Committee of Lithuanian Sports University (No. 50821). All participants provided written informed consent prior to participation. The study was conducted in accordance with the Declaration of Helsinki.



2nd INTERNATIONAL CONFERENCE

REHABILITATION AND HEALTH PROMOTION:
FUTURE PERSPECTIVES

April 16th - 17th, 2026
Lithuanian Sports University
Kaunas, Lithuania