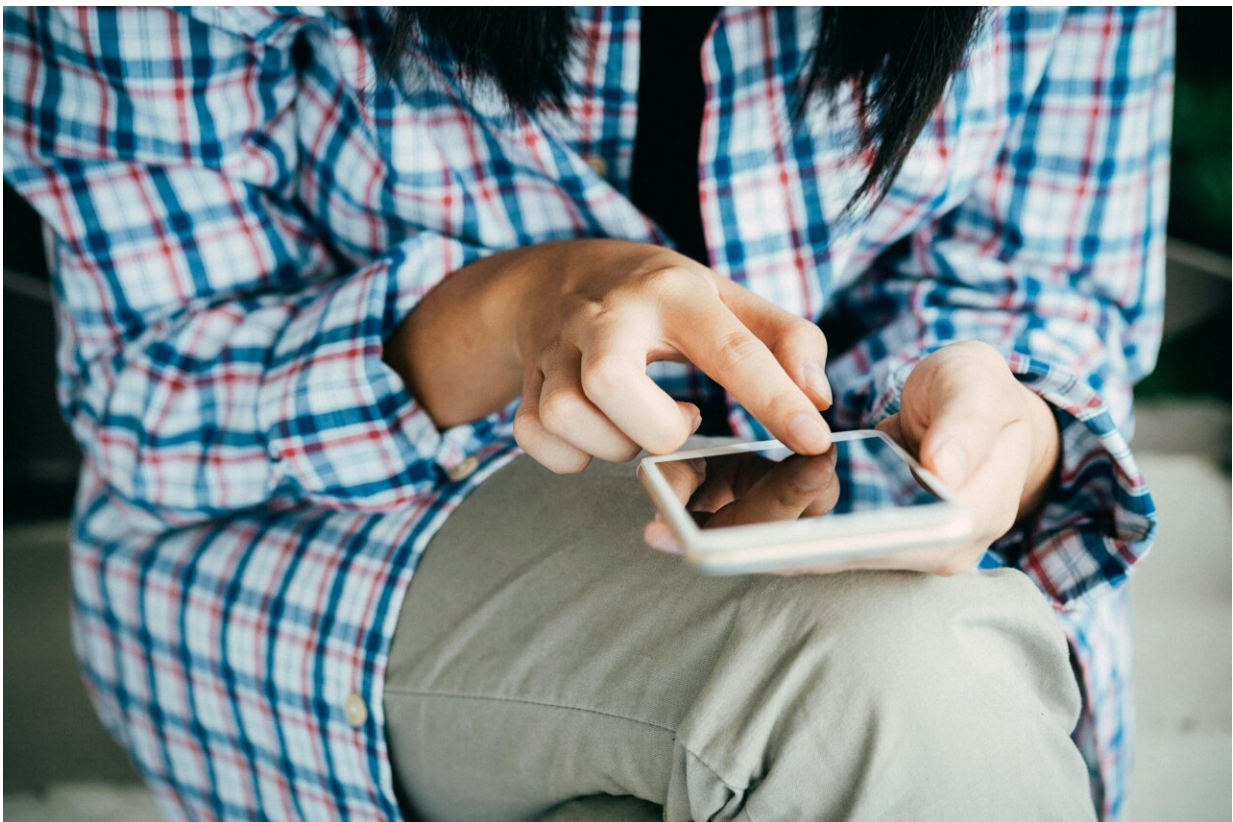


More than four hours of daily smartphone use associated with health risks for adolescents

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This research explores the impact of using smart devices for more than 4 hours a day on adolescent health. Credit: Porapak Apichodilok, Pexels, CC0 (creativecommons.org/publicdomain/zero/1.0/)

In a new study of more than 50,000 Korean adolescents, those who used a smartphone for more than four hours per day had higher rates of adverse mental health and substance use. Jin-Hwa Moon and Jong Ho Cha of Hanyang University Medical Center, Korea, and colleagues present these [findings](#) in the open-access journal *PLOS ONE* on December 6, 2023.

Prior research has shown that [smartphone use](#) among adolescents has increased in recent years, and that this usage may be associated with higher risk of adverse health—such as [psychiatric disorders](#), sleep issues, eye-related problems, and musculoskeletal disorders. However, growing evidence suggests that at least some daily internet usage may be associated with better physical and [mental health](#) for adolescents.

To deepen understanding of the relationship between adolescents' use of smartphones and health, Moon, Cha and colleagues analyzed data on more than 50,000 adolescent participants in the ongoing Korea Youth Risk Behavior Web-based Survey collected in 2017 and in 2020. The data included the approximate number of daily hours each participant spent on a smartphone as well as various health measures.

The [statistical analysis](#) employed propensity score matching to help account for other factors that could be linked to [health outcomes](#), such as age, sex, and socioeconomic status.

The researchers found that in 2020, the percentage of adolescents in the study who used a smartphone more than two hours per day was 85.7%—up from 64.3% in 2017. Adolescents who used a smartphone for more than four hours per day had higher rates of stress, thoughts of suicide, and [substance use](#) than those with usage below four hours per day. However, adolescents who used a smartphone one to two hours per day encountered fewer problems than adolescents who did not use a smartphone at all.

The authors note that this study does not confirm a causal relationship between smartphone use and adverse health outcomes. Nonetheless, the findings could help inform usage guidelines for adolescents—especially if daily usage continues to rise.

The authors add, "This research shows the impact of using smart devices for more than four hours a day on adolescent health."

More information: Association between smartphone usage and health outcomes of adolescents: A propensity analysis using the Korea youth risk behavior survey, *PLoS ONE* (2023). DOI: [10.1371/journal.pone.0294553](https://doi.org/10.1371/journal.pone.0294553). journals.plos.org/plosone/article?id=10.1371/journal.pone.0294553

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