

How do digital technologies affect young people's mental health?

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For almost all of us, “screen time”—time spent using a device with a screen such as a smartphone, computer, television, or video game console—has become a large part of our daily lives. This is very much the case for children and adolescents. In the United States, children ages 8 to 12 years spend an average of 4 to 6 hours each day watching or using screens, and teens spend up to 9 hours.¹ Because young people are continually adopting newer forms of entertainment and technologies, new digital technologies are an ongoing source of concern for parents and clinicians alike.² Studies have suggested that excessive screen time is associated with numerous psychiatric symptoms and disorders, including poor sleep, weight gain, anxiety, depression, and attention-deficit/hyperactive disorder.^{3,4} However, a recent systematic review and meta-analysis found that individuals' self-reports of media use were rarely an accurate reflection of their actual, logged media use, and that measures of problematic media use had an even weaker association with usage logs.⁵ Therefore, it is crucial to have an accurate understanding of how children and adolescents are affected by new technologies. In this article, we discuss a recent study that investigated variations in

adolescents' mental health over time, and the association of their mental health and their use of digital technologies.

Results were mixed

Vuorre et al⁶ conducted a study to examine a possible shift in the associations between adolescents' technology use and mental health outcomes. To investigate whether technology engagement and mental health outcomes changed over time, these researchers evaluated the impact not only of smartphones and social media, but also of television, which in the mid- to late-20th century elicited comparable levels of academic, public, and policy concern about its potential impact on child development. They analyzed data from 3 large-scale studies of adolescents living in the United States (Monitoring the Future and Youth Risk Behavior Surveillance System) and the United Kingdom (Understanding Society) that included a total of 430,561 participants.

The results were mixed across types of technology and mental health outcomes. Television and social media were found to have a direct correlation with conduct problems and emotional problems. Suicidal ideation and behavior were associated with digital device use; however, no correlation was found between depression and technology use. Regarding social media use, researchers found that its association with conduct problems remained stable, decreased with depression, and increased with emotional problems. The magnitudes of the observed changes over time were small. These researchers

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Clinical Point

No correlation was found between depression and technology use

concluded there is “little evidence for increases in the associations between adolescents’ technology engagement and mental health [problems]” and “drawing firm conclusions about changes in ... associations with mental health may be premature.”⁶

Future directions

The study by Vuorre et al⁶ has opened the door to better analysis of the association between screen use and mental health outcomes. More robust, detailed studies are required to fully understand the varying impact of technologies on the lives of children and adolescents. Collaborative efforts by technology companies and researchers can help to determine the impact of technology on young people’s mental health.

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