

Study links heavy digital media use to behavioral problems in teens

By Los Angeles Times, adapted by Newsela staff on 08.14.18

Word Count **944**

Level **1210L**



New research suggests teens who spend more time toggling among a growing number of digital media platforms exhibit a mounting array of attention difficulties and impulse-control problems. Photo by: Dreamstime/TNS

Parents tend to worry about all of the online swiping, scrolling and streaming that consumes the adolescent mind.

New research supports that fear. It suggests that teens who spend more time toggling among digital media platforms exhibit an array of attention difficulties and impulse-control problems.

Investigators from the University of Southern California, University of California at Los Angeles, and UC San Diego studied a group of more than 2,500 Los Angeles-area high school students. These students showed no evidence of attention challenges at the start. Researchers found that those who engaged in more prolific use of digital media over a two-year period reported a rising number of symptoms linked to attention deficit hyperactivity disorder (ADHD). People with ADHD have a hard time focusing and often feel restless and fidgety.

The association between digital media use and ADHD symptoms in teens was modest. However, it was clear enough that it could not be dismissed as a statistical fluke. On average, with each notch a teen climbed up the scale of digital engagement, his or her average level of reported ADHD symptoms rose by about 10 percent.

Inconclusive Evidence

The results do not show that heavy use of digital media causes ADHD symptoms.

Indeed, it's possible the relationship is reversed — that attention problems drive an adolescent to more online engagement.

However, at a time when 95 percent of adolescents own or have access to a smartphone and 45 percent said they are online "almost constantly," the new study raises concerns about the future of paying attention. It was published in the *Journal of the American Medical Association*.

The findings come as mental health professionals are rethinking their understanding of ADHD, a psychiatric condition that was long thought to start in early childhood. ADHD is estimated to affect about 7 percent of children and adolescents.

However, the disorder is increasingly being diagnosed in older teens and adults. Whether its symptoms were missed earlier, developed later or are brought on by changing events is unclear.

2,587 Students Involved In Study

The research involved 2,587 sophomores and juniors attending public schools in Los Angeles County. It raises the possibility that, for some, ADHD symptoms are brought on or made worse by the stimulating, always-on digital offerings that are as close as the wireless device in their pocket.

"We believe we are studying the occurrence of new symptoms that weren't present at the beginning of the study," said USC psychologist Adam M. Leventhal. He is the study's senior author.

Leventhal and other scientists looked at the digital engagement of the students five times over a two-year period. They asked the students to report whether and how much they had engaged in 14 online activities. Those included checking social media sites, browsing the web, posting or commenting on online content, texting, playing games, video chatting and streaming TV or movies.

Four out of 5 students acknowledged "high frequency use" of at least one activity, including 54 percent who told researchers they checked social media "many times per day." Just over two-thirds engaged in high-frequency use of up to four online activities at some point during the study.

Showing Symptoms Of ADHD

Students were also asked whether they had experienced 18 ADHD symptoms, including problems with organization, completing work or staying still. If they acknowledged having any six of them, they were considered to be "ADHD symptom-positive." At various points in the study, anywhere from 4.8 percent to 6.9 percent of the subjects met this criteria.

Compared to the lightest users, the teens who engaged most intensively were more than twice as likely to show symptoms. Among the 495 students who reported no high-frequency media use at the start, 4.6 percent were categorized as symptom-positive at some point. Among the 114 who engaged in seven digital activities many times a day, 9.5 percent were seen to be symptom-positive during the follow-up. Then for the 51 students who reported high-frequency use of all 14 digital activities, 10.5 percent met the symptom criteria.

San Diego State University psychologist Jean M. Twenge has done research on teens and smartphone use. She was not involved in the new work. Twenge said the study suggests that if a teen who is a heavy digital user gives up his devices, he might drive down his risk of significant ADHD symptoms by as much as half.

"Most of the time, a lifestyle change that halves the risk of a poor outcome is more than worth undertaking," Twenge said.

The study authors acknowledged that some students may have had attention problems that did not show at the start but drove their use of digital media.

University of Michigan pediatrician Dr. Jenny Radesky wrote an editorial that accompanies the study. She wrote that the "always on" quality of digital media may rob the brain of the ability to rest and refresh. Teens longing for digital affirmation may lose the ability to tolerate boredom, she wrote.

Some Skeptical Of Possible Link

However, that may not fully explain the study's results. If digital engagement is displacing sleep and exercise, that would explain a child's slipping function, wrote Radesky.

Dr. Lawrence Diller, an ADHD specialist in Walnut Creek, California, expressed skepticism as well.

It is interesting to think that exposure to changing media information might make an adolescent inattentive, he said. "But I don't think that's what's happening here."

Diller said he suspected that kids spending time online are not interested in school or chores. So they've found a different outlet for their energies.

"It's seductive to think that TV and video games and social media change the brain," he added. "Maybe they do. But if that's the case, the brain can change back."