

Teens getting less sleep with rise of smartphones, study says

Canadian expert says new U.S. study reflects 'an epidemic' of sleep deprivation among adolescents

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At first, Raeha Rix, 15, wasn't happy when her mother, Amanda, said she could no longer have her smartphone in her bedroom after 10 p.m. But she acknowledges it was affecting her sleep. (Andy Hicenberg/CBC News)

Teens are getting less sleep than they did before smartphones became commonplace, prompting concerns about potentially serious health consequences, researchers say.

A study published in the current issue of the journal *Sleep Medicine* examined data from two surveys of U.S. adolescents conducted over many years and including questions about how many hours of sleep they got. Almost 370,000 adolescents participated.

The researchers focused on how much sleep teens reported getting in the years from 2009 to 2015, "when the mobile technology really saturated the market among adolescents," said Zlatan Krizan, a psychologist specializing in sleep and social behaviour at Iowa State University and co-author of the study.

Over the course of that six-year period, they found "a seismic shift in the amount of sleep that a typical teen gets," Krizan told CBC health reporter Vik Adhopia.



Zlatan Krizan, a psychology researcher specializing in sleep, personality and social behaviour at Iowa State University, was one of the authors of a recent study that showed a trend of teens getting less sleep over the years they started using smartphones. (Iowa State University)

Krizan and his colleagues found that teens were 16 to 17 per cent more likely to report getting less than seven hours of sleep a night in 2015 than they were in 2009. The recommended amount of sleep for 13 to 18-year-olds is eight to 10 hours per night, according to the U.S. Centers for Disease Control and Prevention.

What's keeping them up?

The researchers looked at other factors besides electronic devices that might affect the amount of sleep teens were getting, including working after school, homework and watching TV, but the number of hours spent on those activities remained "relatively stable or reduced" between 2009 and 2015.

"The only factor that also increased during the time that could be responsible for the shortened sleep is social media, news online and the kind of activities that mobile phones are used for," Krizan said.

The researchers emphasize that the amount of time teens spend on their phones — not just whether they're using them at night — is an important factor in whether or not they're losing sleep.

Teens who used the technology for two hours or less a day didn't appear to suffer any adverse effects on their sleep, Krizan said.

"[But] once you get five hours of use a day or more, you really see a heavily curtailed sleep," he said.

Getting enough sleep in adolescence is "crucial," the study says. In addition to immediate effects, such as performance in school, sleep habits established in the teen years can contribute to sleep patterns and health for adulthood. Lack of sleep has been linked to health problems ranging from obesity and diabetes to depression and substance use.

"[Sleep is] just one of those things that really reaches into all corners of our lives," Krizan said.

'I need to go check it'

The study results don't surprise Amanda Rix and her 15-year-old daughter Raeha.

Until recently, Raeha took her smartphone to her bedroom with her at night, and would "use it a lot."

"Like watching stuff, texting people and then when I was ready to go to bed, I'd like put it on the floor," she said.

But the temptation to pick up the phone again while she was trying to sleep was often too much to resist.



Raeha Rix says she's had friends Snapchat her as late as 1 a.m. (Andy Hicenbergs/CBC News)

"Sometimes I'd just be like, 'No I gotta go to bed, like I want to get up early and straighten my hair' or something so I'd just like turn over," she said. "And then I'd be like, 'No, I need to go check it' and then I'd pick it up."

Her mother, Amanda, said Raeha would be "exhausted" by the time she got home from school.

"By 3 o'clock when you want to curl up and have a nap, that's a good sign that she's not getting enough sleep," she said.

So Amanda imposed a house rule. As a real estate agent, she admits to checking her own phone at night, too. Now, both mother and daughter leave their phones outside their bedrooms when it's time to sleep — and both say they're sleeping better as a result.

Lack of sleep 'getting worse'

Lack of sleep is an issue affecting more and more teens, said Dr. Rachel Morehouse, medical director of the Atlantic Sleep Centre at Saint John Regional Hospital in New Brunswick.

"It just seems like it's getting worse," she told CBC News.



Dr. Rachel Morehouse, medical director of the Atlantic Sleep Centre at Saint John Regional Hospital in New Brunswick, says she believes the problem of teens getting insufficient sleep is even worse than a recent study suggests. (LinkedIn)

Morehouse said staff at her clinic "often" hear about teens using smartphones at night.

"They're putting it under their bed and they're responding to texts and emails and so on as they come in," she said. "So that's just another disruptor of sleep in adolescence."

The actual reality of sleep deprivation among teens is probably even worse than the study suggests, Morehouse said. She estimates fewer than one-quarter of teens get the eight to nine hours of sleep a night they need.

"It is truly an epidemic, I think."