

Bedtime media use linked to less sleep in children who struggle to self-regulate behavior

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For some children, screen time before bed translates to less sleep.

According to a study from the Arizona State University Department of Psychology, media use in the hour preceding bedtime impacts how kids sleep, especially children who struggle to self-regulate their behavior. Frequent media use before bed in these children predicted later bedtimes and [less sleep](#). The work is now available online in *Psychological Science*.

"Among kids who used the same amount of media in the hour before bed, we found differences that were explained by a personality characteristic called effortful control," said Leah Doane, associate professor of psychology at ASU and senior author on the paper. "Kids who score low on measures of effortful control are the ones who struggle to wait to unwrap a present or are easily distracted. We found a strong association between media use in the hour before bed and when these kids went to sleep and how long they slept. Media use before bed was not associated with the sleep of kids who scored high on measures of effortful control."

The research team spent a week following 547 children, aged 7-9 years. The participant group was socioeconomically diverse and lived in rural and urban areas. The parents kept daily diaries that tracked the children's media use and sleep patterns. They also completed a survey that asked about their children's temperament, including their ability to self-regulate behavior.

For the entire week, the children wore specialized wrist watches called actigraphs that tracked their movement and also ambient light. The actigraph data gave the research team detailed information about when and how long the children slept.

The children slept an average of 8 hours a night and used media before bed for an average of 5 nights during the study week. Children who did not use media before bed during the study week slept 23 minutes more and went to bed 34 minutes earlier than children who used media most

nights during the study week.

"Media use was generally associated with a shorter sleep duration, but this effect was most pronounced in children with low effortful control," said Sierra Clifford, a research scientist at ASU and first author on the paper. "The impact of media on sleep was also an average affect, meaning that it reflects habitual media use rather than occasionally staying up late to watch a movie."

The children who scored low on measures of effortful control slept the least amount of time when they consistently used media in the hour before bed during the study week. These children slept approximately 40 minutes less per night. Media use before bed did not affect the sleep of children who scored high on effortful control, which was approximately 35 percent of the study participants.

"Media exposure mattered for the [children](#) who measured lowest in effortful control," Clifford said.

Children with low effortful control might struggle with switching their attention from watching media before bed to calming down and falling asleep. But because effortful control is a personality characteristic, it is more difficult to change.

"Instead of parents wondering how to help their child better regulate their behavior, they can try to focus on creating more consistent sleep and [media](#) use schedules," Doane said.

More information: Sierra Clifford et al, Effortful Control Moderates the Relation Between Electronic-Media Use and Objective Sleep Indicators in Childhood, *Psychological Science* (2020). [DOI: 10.1177/0956797620919432](https://doi.org/10.1177/0956797620919432)

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