Effects of Pre-Sleep Media Use on Sleep/Wake Patterns and Daytime Functioning Among Adolescents: The Moderating Role of Parental Control

# Details

## Year

2014

## DOI

10.1080/15402002.2012.694381

## Issued

2014

## Language

English

## Volume

12

## Issue

6

## Start Page

## End Page

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## Type

Journal article

## Journal

Behavioral Sleep Medicine

## Publisher

Informa UK Limited

## Topics

## Sample

1,926 third-, fourth-, fifth-, and sixth-grade students (1,059 girls (55%) and 857 boys (45%)) in 13 secondary schools in Flanders ranging in age from 13 to 20 years with a mean age of 16,9. Eight schools were located in an urban area and five schools were located in a rural/suburban area.

# Abstract

The aim of this cross-sectional study was to investigate the influence of media use in the hour
before bedtime on sleep/wake patterns and daytime functioning among adolescents and to examine
the moderating role of parental control. A total of 1,926 Belgian students, 55% girls and 45% boys,
with a mean age of 16:9 ˙ 1:5 years, completed a modified version of the School Sleep Habits Survey. Correlational analyses showed that media use, except television viewing, was associated
with later bedtimes and longer sleep latencies. Cell phone and computer usage was negatively
associated with daytime functioning. On schooldays, parental control had a moderating effect on
the relationship between bedtime and computer use. As media use can influence the sleep
of adolescents considerably, parental control is necessary to regulate the exposure of adolescents
to media and to moderate the detrimental effect of media use on sleep.

# Outcome

"Firstly, it is important to note that this is a older article (2014). The results indicate that 45% of the adolescents encounter a lack of sleep and only 13% of the adolescents report feeling totally refreshed during weekdays, Particularly the use of a computer or the Internet and a cell phone is
negatively associated with sleep patterns. The more adolescents use their cell phone in the hour before going to sleep, the later their bedtimes and the longer sleep onset latency. The use of video games is related with later bedtimes but has no negative impact on sleep onset latency. The absence of media in bedrooms is also associated with earlier bedtimes on schooldays and during the weekends for all types of electronics. Secondly, the absence of parental rules for the use of media is associated with more frequent and more intense television viewing and computer use. Media use as a form of unstructured activity is likely to be extended in time and thus shortens sleep duration. Structured pastimes, such as practicing sports, are less likely to compete with sleep time because they start and end at set times. Exposure to the light from the display may affect the sleep/wake cycle through suppression of the melatonin secretion which generates the phase delay of sleep. It also increases the activity level of the nervous system and result in high physiological arousal, alertness and excitement, thus interfering with the relaxation that is necessary to sleep.
This detrimental impact on schooldays can be moderated by parental control. However, this is not the case during the weekend. A possible explanation is that applying parental rules can be much more difficult during the weekend. Cell phone use in adolescents is difficult to control because of its important social aspect and is even simply used as an alarm clock." (Pieters et al., 2014, pp. 438-440)