A pilot cluster-randomised study to increase sleep duration by decreasing electronic media use at night and caffeine consumption in adolescents

# Details

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## Sample

352 adolescents mean age 15.09 years

## Implications For Educators About

Digital citizenship

## Implications For Stakeholders About

## Other Stakeholder Implication

Family and Children welfares, Public and private digital literacy initiatives

# Abstract

Objective: Bedtime electronic media use and caffeine consumption are risk factors for insufficient sleep
and poor sleep quality during adolescence, which are in turn risk factors for mental wellbeing. Our study
tested the effectiveness of a brief school-based psychoeducative intervention to primarily increase sleep
duration, by decreasing bedtime electronic media use and caffeine consumption. Secondary outcomes
included improving sleep quality and difficulties, daytime tiredness, and mental wellbeing.
Method: A pilot cluster-randomised controlled study was conducted involving a 25-min psychoeducative
school-based intervention combined with parent information. 352 adolescents from seven schools
participated (Intervention Group/IG ¼ 192 students vs. Control Group/CG ¼ 160 students; age:
Mean ¼ 15.09 years; SD ¼ 1.65 years; Females ¼ 163). The intervention included information on the
importance of sleep and good sleep hygiene habits, particularly emphasizing behavioural rules of
avoiding electronic media use at night and evening-time caffeine consumption. A leaflet containing the
rules was also sent to parents of IG participants. Baseline and post-intervention sessions were held
approximately four weeks apart.
Results: Multilevel analyses revealed a significant but modest decrease in electronic media use for
participants in the IG versus CG, but showed no effect on caffeine consumption or sleep duration.
Moreover, the intervention did not impact any secondary outcome.
Conclusions: Findings indicate the potential effectiveness of a short and easily administrable intervention
to decrease electronic media use at night, which may be incorporated into school curricula and standardised
for wider use in primary prevention. However, no further benefits of the intervention were
found.

# Outcome

Multilevel analyses revealed a significant but modest decrease in electronic media use for
participants in the intervention group versus control group, but showed no effect on caffeine consumption or sleep duration. Moreover, the intervention did not impact any secondary outcome. Findings indicate the potential effectiveness of a short and easily administrable intervention to decrease electronic media use at night, which may be incorporated into school curricula and standardised for wider use in primary prevention. However, no further benefits of the intervention were found.