Media Use, Sleep Quality, and ADHD Symptoms in a Community Sample and a Sample of ADHD Patients Aged 8 to 18 Years

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Abstract

Objective:
Relationships between sleep, screen-based media, and ADHD symptomatology were investigated using a case- and community-based approach.

Method:
N = 357 healthy and N = 61 children with ADHD (12.72 ± 2.83 years) completed a sleep and media questionnaire. To measure ADHD symptomatology, parents filled out the Strengths and Weaknesses of ADHD symptoms and Normal behavior (SWAN) scale. Two samples were formed: a matched (N = 61 patients and N = 61 controls) and a community sample (N = 357 healthy participants and N = 20 patients).

Results:
Compared with controls, participants with ADHD reported delayed sleep onset and more screen time on school days. Adolescent patients showed more behavior promoting delayed sleep phase. In the community sample, media time, sleep deviation, and circadian rhythm were correlated with ADHD symptomatology. Furthermore, media time, sleep-wake behavior, and sleep deviation were predictive of ADHD symptomatology (variance explained = 4%-15%).

Conclusion:
Longer media time and inadequate sleep-wake behavior increase the risk of ADHD-like symptoms. However, research using objective assessments is needed to disentangle this distinct association and to provide possible directions for intervention.