Sleep habits in children with attention-deficit/hyperactivity disorder predominantly inattentive type and associations with comorbid psychopathology symptoms.

Becker SP, Pfiffner LJ, Stein MA, Burns GL, McBurnett K.

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Abstract

OBJECTIVES:
Much of what is currently known about the sleep functioning of children with attention-deficit/hyperactivity disorder (ADHD) is based on samples of children with ADHD combined type, and no study to date has examined the association between sluggish cognitive tempo (SCT) and sleep functioning in children diagnosed with ADHD. Accordingly, the objectives of this study were to (1) describe the sleep habits of children diagnosed with ADHD predominantly inattentive type (ADHD-I) and (2) examine whether comorbid internalizing, oppositional, and/or SCT symptoms are associated with poorer sleep functioning in children with ADHD-I. This study extends the current literature by using a large, clinical sample of children with ADHD-I to examine the association between SCT and other psychopathology symptoms with children's sleep functioning.

METHODS:
Participants included 147 children (age: 6-11, 59% male, 55% White) diagnosed with ADHD-I using a semi-structured diagnostic interview. Parents completed measures assessing their child's sleep habits as well as comorbid anxiety, depression, oppositionality, and SCT symptoms.

RESULTS:
Fourteen percent of children with ADHD-I obtain less sleep than recommended and 31% have a sleep onset latency of greater than 20 minutes. The few children taking medication for ADHD had a longer sleep onset latency than those without medication. Twenty-seven percent of parents indicated that it is "difficult" to get their child out of bed on school days and 41% of parents indicated that their child needs to catch-up on sleep on the weekend "at least a little". Regression analyses found anxiety and SCT sleepy/tired symptoms to be the most consistent dimensions of psychopathology associated with sleep functioning, with little support for depression or oppositionality being associated with sleep.

CONCLUSIONS:
A sizeable minority of children with ADHD-I experience impaired sleep. In addition to SCT sleepy/tired symptoms, comorbid anxiety was most consistently associated with poorer sleep functioning in children with ADHD-I. SCT daydreaming and working memory symptoms were unassociated with sleep functioning, and the size of the effects between SCT sleepy/tired and sleep functioning indicates that these are not overlapping constructs. Longitudinal studies are needed to evaluate the interrelations of sleep problems and comorbid psychopathology symptoms and their impact on the daytime functioning of children with ADHD-I.