



Sleep in Children with Attention-Deficit / Hyperactivity Disorder

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Why is sleep important? And how much should children have?

Sleep plays a major role in our health and development. For example, sleep is important for learning, attention, and memory, academic achievement, and even physical growth^{1, 2}. As such, it is important for children to get age-appropriate quality and quantity of sleep! According to the National Sleep Foundation, school aged children (6-13 years old) should receive between 9 and 11 hours of sleep each night³. Children who sleep less or who have poor quality sleep (e.g., up and down throughout the night) will not be able to perform their best during the day, especially in school⁴.

How many children have sleep problems? What is the most common sleep problem?

About 25% of all children are poor sleepers⁵. Children with ADHD have one of the highest rates of sleep problems, with estimates ranging between 50% to 95%⁶. The reason for the high rates of sleep problems in children with ADHD is not exactly known, but contributors likely include biological differences (e.g., differences in their circadian clock leading them to being night owls), psychological differences (e.g., having difficulty quieting their minds in order to go to sleep), and social differences (e.g., spending more time on screens throughout the day and before bed). While children can have a lot of different types of sleep problems (e.g., sleep apnea), the most common sleep problem is insomnia, and this is the case for children with ADHD as well. Insomnia includes difficulty falling asleep, staying asleep, and early morning awakenings⁷. Children with insomnia and/or insomnia symptoms often have shorter sleep duration than what is recommended, and they may also have poor sleep quality³. Sleep problems are one of the key reasons why parents seek professional help for their children, especially for parents of children with ADHD².

How is insomnia treated?

The recommended approach to the treatment of insomnia/insomnia symptoms is to follow a stepped model for sleep intervention (i.e., starting with less intense approaches and moving toward more intense interventions or interventions with more potential side-effects)⁸. The first step is to provide sleep education (e.g., what is and what is not normal sleep behaviour). The second step is putting healthy sleep practices into place, and these are made easier to remember with the mnemonic, *the ABCs of SLEEPING*. This mnemonic stands for **A**ge appropriate **B**edtimes and waketimes with **C**onsistency, **S**chedules and routines, **L**ocation, no **E**lectronics in the bedroom or before bed, **E**xercise and diet, **P**ositivity and relaxation, **I**ndependence when falling asleep, **N**eeds met during the day, and all of the above equals **G**reat sleep!⁸.

Some families will need to move to the third step of intervention, which is to try more involved behavioural interventions. For example, with the help of a health professional with expertise in sleep a parent could try a technique like bedtime fading which helps to re-align the child's internal clock⁹. If intensive behavioural interventions do not help, the fourth and final step in the intervention model is to try medication to help with the child's sleep. However, it should be noted that there is little evidence for medication's safety and effectiveness in children, and at best it provides a short-term solution to the child's sleep problem⁸.

For children with ADHD, interventions would follow the same steps as described above, with some modifications⁸. For example, (1) sleep education should involve information that incorporates what is known about ADHD and sleep; (2) when implementing healthy sleep practices, consider more limit setting with electronics; (3) for behavioural strategies, increase the use of visual reminders and positive reinforcement, and

(4) when using medication, melatonin is often tried before prescription medications as there is some research that demonstrates its effectiveness in improving sleep in children with ADHD⁸.

Conclusions

Children with ADHD have an increased rate of sleep problems when compared to their peers. This may put them at increased risk of further difficulties with regulating their attention and emotions, increase their risk for poorer mental and physical health, and reduce success in school. When addressing these sleep problems, it is important to take an intervention approach backed by science (evidence-based interventions as described above) and to think about special considerations for children with ADHD when developing a plan for intervention. The goal is to improve sleep quality and quantity, which in turn can help to improve your child's functioning at school and home.

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