

Paediatric ADHD sleeps problems: The issues and changing approaches to treatment.

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Introduction

Sleep disorders are common in children with ADHD; up to 73% will experience sleep problems such as problems winding down at bedtime and falling asleep. They are 2-3 times more likely to suffer from insomnia than those without ADHD [1].

Research suggests that children need 9-10 hours' sleep (less for older teenagers) on a regular basis to maintain optimal health but sleep problems associated with ADHD can make this difficult to achieve. Furthermore lack of sleep can worsen ADHD symptoms and have a negative impact on children's emotions and behaviour [2].

There's no clear pathway or best practice for treatment, but in my experience of working with children with ADHD, lack of good quality sleep can exacerbate symptoms of inattentiveness, hyperactivity and emotional regulation. Good quality sleep is integral to managing ADHD symptoms; therefore, addressing the sleep pattern is key when evaluating ADHD symptoms. Many clinicians who specialise in ADHD, including myself, will address sleep problems before prescribing ADHD medications (e.g. methylphenidate or atomoxetine).

If patients aren't having sufficient quality sleep, treating them with first line ADHD medications (without considering the impact of poor sleep) is less likely to be effective. Many ADHD medications are actually stimulants and consequently (particularly if taken too late in the day) can have a negative impact on sleep onset.

Good sleep is paramount to having proper physical and mental functioning in all children and is extremely important when it comes to treating paediatric ADHD holistically.

The first approach for children and young people with sleep disorders are non-drug techniques such as good 'sleep hygiene'-having a fixed bedtime and relaxing bedtime routine in a calming environment. Reducing screen time in particular can have a substantial impact as they emit blue light which suppresses melatonin production.

However, if these initial measures fail, melatonin is often prescribed to help improve quality of sleep in children with certain neurodevelopmental disorders such as ADHD.

Melatonin is a natural hormone produced by the pineal gland in the brain and released at night time to initiate sleep. Parents

often feel more comfortable with melatonin prescribing (as it's a naturally occurring hormone) but also because pre-treatment investigations such as electrocardiograms and blood pressure tests (required before prescribing most ADHD medications) are not needed.

Previously, healthcare professionals haven't had a licensed melatonin product specifically for insomnia in children with ADHD as part of their treatment armoury. Until April 2022, prescribers had to prescribe off-label (e.g. Slenyto -modified-release tablets indicated for insomnia in children (aged 2-18) with Autism Spectrum Disorder) or off-licensed immediate release tablets.

However, there is now a standard release tablet which is indicated for paediatric ADHD (children aged 6-17) with insomnia (Adaflex)

The type of melatonin prescribed is dependent on the specific sleep problem the patient is experiencing. Standard release may better suit children who mostly struggle with sleep onset issues only, while modified-release may better suit those affected by night time waking challenges.

Children with ADHD are more likely to struggle with sleep onset (as typically the circadian rhythm has shifted) and melatonin can therefore help restore a normal sleep pattern by reducing sleep onset latency.

Having a licensed melatonin for paediatric ADHD could mean shared care agreements (between primary and secondary care) can be reached more easily as general practitioners can feel more comfortable managing prescriptions, streamlining the care pathway for patients and parents.

In summary, sleep problems in paediatric ADHD are common. Good sleep can have a huge impact on ADHD behaviour, which is why some specialists are choosing a 'sleep first' approach to treatment. The first step is always 'sleep hygiene' followed by melatonin (widely used in children with neurodevelopmental conditions).

Standard release forms will be of particular benefit to children with ADHD who have trouble falling asleep. Licensed indications should hopefully help families to better manage their conditions, as shared care agreements with primary care teams may be easier to establish [3-5].

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