Pediatric Insomnia

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• Insomnia • Infants • Children • Adolescents

Similar to many other presenting complaints in the pediatric population, such as headaches or shortness of breath, insomnia in children and adolescents should be viewed as a symptom or constellation of symptoms that result from a wide range of possible causes. The causes of childhood insomnia are varied, and include both primarily medical (eg, medication-related, pain-induced) and behavioral (eg, associated with lack of a regular sleep schedule or negative sleep-onset associations) issues, and are often the result of a combination of these factors. In a general sense, the working definition of insomnia in children may be construed as similar to that in adults, (eg, significant difficulty initiating or maintaining sleep); however, from a clinical standpoint, the most frequent manifestations of childhood insomnia, particularly in younger children, are bedtime refusal or struggles, difficulty falling asleep after "lights out," or frequent or prolonged night wakings requiring parental intervention.

The diagnosis of insomnia in children may be more challenging than in adults for several reasons. First, the patient rarely presents with a complaint of sleeplessness; caregiver concerns and their subjective observations regarding a child's sleep patterns and behaviors often serve to define sleep disturbances in the clinical context. Parents' ability and willingness to recognize and report sleep problems in children also vary across age groups, with parents of infants and toddlers more likely to observe and thus be aware of sleep concerns than parents of school-aged children and adolescents.

In addition, sleep problems in the pediatric population must be viewed against a background of the normal developmental trajectory across childhood and appropriate developmental norms; "normal" bedtime behavior, time to sleep onset, and sleep duration are dramatically different in 6-month-old infants, 6-year-old school-aged children, and 16-year-old adolescents.

Finally, culturally based differences in values and beliefs regarding the meaning, relative importance, and role of sleep in daily life, and sleep practices (eg, sleeping space and the timing of sleep periods, solitary sleep vs bed-sharing, use of transitional

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objects) have a profound effect on not only how a parent defines a sleep "problem" but also the relative acceptability of various treatment strategies. Finally, the consequences of childhood insomnia, in addition to or instead of direct repercussions on the child (eg, daytime sleepiness, behavior problems), may principally involve caregiver stress and sleeplessness. For example, several studies have documented secondary effects of childhood sleep problems on parents (eg, maternal depression) and on family stress and functioning.[1–3] This issue is particularly salient in families of children with chronic medical or neurodevelopmental conditions, for whom the additional caregiver burden of chronic sleeplessness and fatigue may be considerable.

PEDIATRIC INSOMNIAS

Behavioral Insomnia of Childhood

Behavioral insomnia of childhood (BIC) is the most common behavioral sleep disorder experienced by young children, and is characterized by bedtime problems and night wakings, as indicated by parent report. For didactic purposes, the sleep-onset association and limit-setting subtypes of BIC are defined as separate entities. However, in reality, the two often coexist, and many children present with both bedtime delays and night wakings, which is the combined subtype.

BIC, sleep-onset association type

BIC, sleep-onset association type (BIC-SOA) presents with frequent and prolonged night wakings that require caregiver intervention to help the child return to sleep. The diagnostic criteria for this disorder include (1) prolonged sleep onset that requires particular conditions, (2) demanding sleep-onset conditions, (3) significant delay of sleep onset in absence of those conditions, and (4) caregiver intervention is required to return the child to sleep after night wakings.[4] Thus, BIC-SOA involves sleep regulation for a child to both fall asleep at bedtime without parental intervention or assistance and fall back asleep after normally occurring brief arousals during the night. Children with BIC-SOA are unable to self-soothe to sleep at bedtime or during the night, but rather signal the caregiver by crying (or coming into the parents' bedroom if the child is no longer in a crib) until the necessary associations are provided.

The capacity to self-soothe begins to develop in the first 12 weeks of life, and is a reflection of both neurodevelopmental maturation and learning. However, the developmental goal of independent self-soothing in infants at bedtime and after night wakings may not be shared by all families, and voluntary or lifestyle bed- or room-sharing between children and parents is a common and accepted practice in many cultures and ethnic groups. Sleep behavior in infancy, in particular, must also be understood in the context of the relationship and interaction between child and caregiver, which impacts greatly on the quality and quantity of sleep.[5,6] Furthermore, a diagnosis of BIC-SOA before the age of 6 months is not typical.

Both internal and external factors affect the risk for and reinforcement of the presence of prolonged night wakings. For example, parental presence while falling asleep, intentional cosleeping, or feeding a child to sleep increase the likelihood that a child will not have the ability to return to sleep independently.[7,8] Medical conditions (eg, reflux) or periodic illness; scheduling changes or vacations; acquisition of typical developmental milestones; or a difficult temperament can also affect the frequency of arousals and the ability of a child to self-soothe. Insecure maternal–child attachment, parental anxiety, and maternal depression are additional risk factors for prolonged night wakings in young children. Finally, sleep disturbances also reflect complex combined influences of biologic, environmental, and cultural factors, and thus may differ substantially across different cultures and in different contexts.[9]