

Although many typically developing young children experience sleep difficulties, sleep-related disturbances are much more common in children with special needs. Children with special needs generally have fewer hours of nighttime sleep and less total sleep than typically developing children, as well as more sleep-related problems. Frequently, a child's difficulty with performance in everyday activities is attributed to cognitive difficulties, when in actuality the problem may be a result of sleep difficulties and our lack of understanding its effects.

What are some common diagnoses likely to have sleep disturbances?

- Autism,
- Visual impairment,
- Rett's syndrome,
- Cerebral Palsy,
- Down's Syndrome,
- Attention-Deficit Hyperactivity Disorder (ADHD),
- Mental retardation

What can happen to my child if he/she has sleep disturbances?

Although the most obvious consequence of sleep disturbances for children is sleep deprivation, many other negative consequences exist for both children and their families. Children may demonstrate:

- Impaired cognitive ability,
- Psychological stress,
- Behavioral difficulties that could include an increased probability for destructive behavior
- Impaired ability to participate in therapeutic and early intervention activities.

Caregivers may also suffer from sleep deprivation, as well as psychological stress, disruption of their work schedule, and an increased risk of caregiver abuse.

How would I know if my child was having sleep disturbances?

Common sleep-related disturbances evident in young children include:

- Nighttime settling (e.g., refusing or tantrums or taking a long time to settle or other disruptive behavior)
- Night wakings,
- Early wakings,
- Waking for feedings,
- Delayed sleep onset,
- Inappropriate sleep/wake cycles
- Excessive day sleep.

What are the first steps to treating a sleep disturbance in my child?

- It is important to identify an accurate sleep/wake cycle for a child when determining the existence of a sleep disturbance and choosing a method for intervention.
- After developing an understanding of a typical sleep/wake cycle, it is helpful to gain the following for a specific child: 1) typical bedtime and naptime; 2) onset time to sleep; 3) total hours of sleep; 4) number of night wakings; 5) number of naps; 6) location of sleep; 7) bedtime rituals or routines used as attempts to get the child to sleep; 8) the child's willingness to go to bed; 9) activities that immediately precede bedtime; 10) objects available in the bed or room; and 11) presence of other individuals or noises in the sleeping environment.
- Keeping a sleep diary along with direct observations of the child for a certain period of time are helpful tools when attempting to uncover sleep patterns in young children.
- It is also important to understand the effects of the sleep disturbance on your overall family functioning and then a complete profile is available to refer to when choosing the most appropriate intervention for your child and family.

Intervention Options

It should be noted that no single intervention method is recommended as most effective for all children. A sleep intervention plan should be tailored to fit the unique needs of a specific child and family, particularly the effectiveness, feasibility and cost of each intervention. The following list of options have been used in the treatment of young children with sleep disturbances:

- **Extinction:** Ignoring a child's inappropriate sleep behavior or responding to the behavior with minimal attention (often used when the child's behavior is attention seeking). Parents can check on their child if there is a concern that the child is ill or to ensure safety, but should deliver no excess attention (e.g., pick up the children to soothe, feed or interact with them in any way) and leave once reassured of health and safety concerns. Some literature suggests that the parent should check on the child only once per night.
- **Graduated Extinction:** Ignoring a child's behavior for a preset time interval for increasingly longer periods of time each week or across subsequent nights. At the end of the interval, parents can enter the room, put the child back if necessary, and tell them it is time for sleep before leaving the room again after a maximum of 15 seconds.

- **Modified Extinction:** Ignoring a child's behavior for 20 minutes, then checking that the child is not ill without providing excess attention. After reassuring that the child is okay, parents should leave the room and return only after the child displays a problem for a further 20 minutes. The 20-minute checking interval is maintained throughout treatment.
- **Sleep Scheduling:** Setting the child's bedtime and morning waking at specific times each day, so the child is deprived of daytime sleep, leading to a more likely occurrence of sleep at a specific time. If the child awakens at night, he or she is placed back in the bed with minimal interaction.
- **Scheduled Wakes:** Waking the child 15-60 minutes before the child wakes spontaneously and resettling them to sleep in their usual manner. Number and timing of scheduled wakes is modified on a semiweekly basis, depending on the child's sleep patterns during the previous few nights.
- **Bedtime Fading:** The individual's bedtime is initially set later than his or her typical bedtime to increase the probability that rapid sleep onset will occur. After the child falls asleep rapidly, the bedtime is gradually made earlier by a set interval of time. The individual is also not allowed to sleep at inappropriate times (e.g., daytime), before the scheduled bedtime, or past the scheduled wake time.
- **Positive Routines:** Establishing a period of time for winding down, initially close to the time that the child falls asleep. This approach involves the development of a routine set of calm activities that the child enjoys which immediately precede bedtime (e.g., using the toilet, changing clothes, brushing teeth, and reading a story), while also gradually moving bedtime to an earlier and more age-appropriate time (e.g., 5-10 minutes per week to the appropriate time). After completion of the routine, any resistance from the child is dealt with by parents saying, "It's time for sleep" and placing the child back in bed if necessary.
- **Chronotherapy:** Bedtime is systematically delayed until the desired age-appropriate bedtime is achieved. This systematic delay takes advantage of the tendency in the absence of external cues to fall asleep one hour later each night. Thus, a child's bedtime and corresponding sleep/wake cycle is gradually shifted until an appropriate sleep pattern is obtained.
- **Melatonin:** Oral dosages are given to regulate the sleep of children with sleep disturbances.

- **Support visits and telephone calls:** Non-directive discussion offered by trained or untrained counselors about a child's sleep. These support efforts generally decrease in frequency over time and are used in conjunction with other intervention methods.

Author: Marisa Sparkman, Occupational Therapy Student / Linn Wakeford, MS, OTR/L
Contact Information: wakeford@mail.fpg.unc.edu
Last Revised: July 9, 2002

Reference

Durand, V. M. (1998). Sleep better!: A guide to improving sleep for children with special needs. Baltimore: Paul H. Brookes Publishing Company.

Hunt, F. M., Mayette, C., Feinberg, E., & Baglin, C. A. (1994). Integration of behavioral consultation in an intervention setting. Infants and Young Children, 7 (2): 62-66.

Roane, H. S., Piazza, C. C., Bodnar, L. E., & Zimmerman, K. L. (2000). Sleep difficulties in children with developmental disabilities. Infants and Young Children, 13 (2): 1-8.