

SLEEP DISORDERS IN CHILDREN: CLINICAL MANIFESTATIONS AND PRINCIPLES OF TREATMENT

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Good sleep is an important factor influencing a person's health and well-being. However, many people suffer from sleep disorders, which undoubtedly interfere with their daily activities. Not getting enough quality sleep not only leads to fatigue, but can also affect a person's physical and mental state, as well as their ability to think and perform daily tasks. Such sleep disorders include simple insomnia, which may occur from time to time, and in more severe cases, sleep disorders such as sleep apnea or narcolepsy. This article describes the different sleep disorders, their symptoms and manifestations, and explains how they affect our daily lives..

Introduction. Sleep disorders have a negative impact on all areas of human life and health. Disturbances in the duration and quality of sleep are the cause of many somatic and psychosomatic diseases, significantly reducing the quality of life.[1] The most important consequences of chronic sleep disorders include a decrease in cognitive functions (information processing, long-term memory, planning, goal-directed activity, reduced motivation for active activity), including as a result of the formation of neurodegenerative and vascular changes in brain tissue, as well as the development of emotional disorders (manifestations of anxiety, reduced stress tolerance).

Sleep disorders are disorders that interfere with the body's ability to get the right amount of rest and wakefulness. More than 80 sleep disorders affect the quality, timing, and amount of sleep and wakefulness. A sleep disorder may be diagnosed if people have trouble sleeping regularly, feel excessively sleepy even after getting more than seven hours of sleep a night, or have difficulty performing daily tasks.

Several comorbid conditions are associated with sleep difficulties, including physical and emotional problems. Sleep problems can contribute to mental health conditions, and vice versa. [2] There are also other mental health conditions that can present with sleep problems. These sleep problems often resolve after the underlying condition is treated.

Sleep disorders in children are a pressing problem of modern pediatrics and neurology, as they are observed quite often - in 84% of children under 2.5 years of age, in 25% of children aged 3-5 years, and in 13.6% at 6 years of age [1, 2]. Sleep disorders in children not only lead to a deterioration in daytime well-being, emotional mood, performance, cognitive functions and behavioral problems, and academic performance, but are also associated with an increased risk of developing somatic pathology [1, 2]. The most common sleep disorders in childhood include sleep talking (84%), night waking (60%), bruxism (45%), night terrors (39%), nocturnal enuresis (25%), difficulty falling asleep (16%), snoring (14%), rhythmic movements (9%), and obstructive sleep apnea. [3]

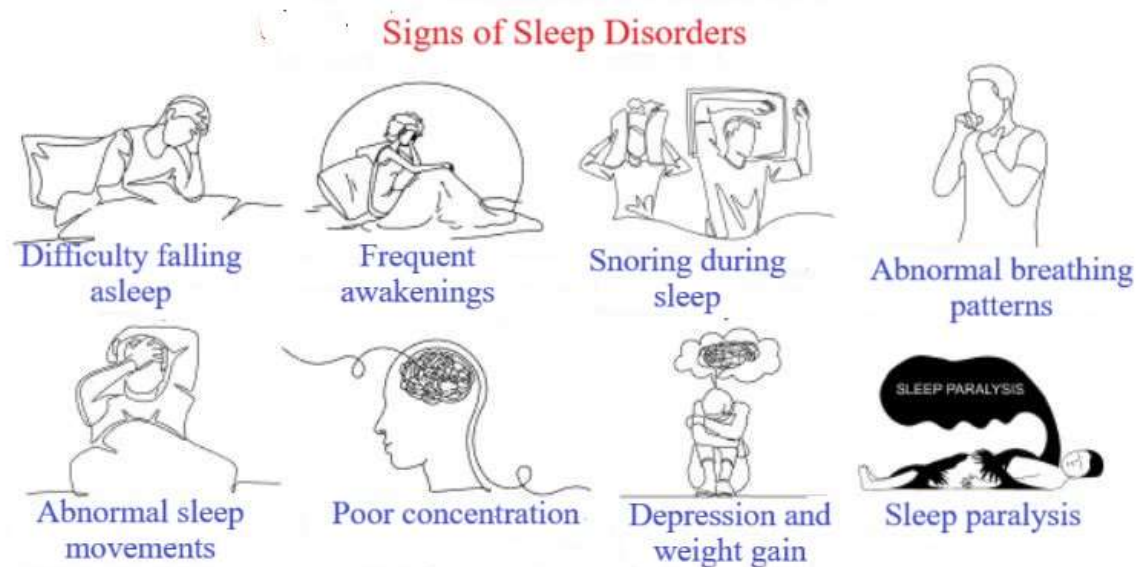
Therefore, if a person suffers from a sleep disorder, it is necessary to diagnose and treat it as soon as possible. The negative effects of sleep disorders worsen and lead to additional health complications if they are left untreated.

Symptoms of sleep disorders. Symptoms of sleep disorders vary depending on the disorder and may be the result of another condition; however, common symptoms include:

- Inability to fall asleep or staying asleep for more than 30 minutes
- Unable to sleep most of the night
- Waking up frequently and unable to go back to sleep
- Snoring, gasping for air, and choking during sleep
- Needing to move while resting
- Abnormalities in the breathing cycle
- Abnormal or unwanted sensations during sleep
- Unusual movements during sleep
- Lack of concentration
- Depressed mood associated with weight gain
- Inability to move when awake, etc.

Daytime symptoms include:

- Excessive daytime sleepiness or drowsiness during routine tasks
- Changes in behavior, such as inability to concentrate or lose focus
- Mood swings, such as irritability and loss of control
- Difficulty meeting deadlines or work goals
- Frequent accidents, falls, etc.



Causes of sleep disorders. Sleep disorders are diverse and can be classified as behavioral problems, circadian rhythm dysfunctions, breathing conditions, inability to initiate sleep, or excessive daytime sleepiness. The causes and effects are based on factors such as breathing, inability to initiate sleep, or daytime sleepiness. However, there are a number of risk factors that can lead to sleep disorders in a person. Thus, the causes of sleep disorders include Yoshi va genetikasi:

- Age can be a contributing factor to sleep disorders, as some are more common in children and others in older people. Older people tend to sleep less and experience less deep sleep as they get older. They also tend to wake up more easily.
- Genetic factors can lead to sleep disorders such as insomnia, restless legs syndrome, sleepwalking, and sleep apnea. [4]

Diagnosing sleep disorders. Sleep disorders are diagnosed by consulting with a sleep specialist who will listen to your concerns and create a personalized treatment plan. The specialist will perform an exam and ask you to keep a sleep diary. The following tests may be recommended to diagnose a sleep disorder:

- Actigraphy: This is a wrist-worn monitor that can measure arm and leg movements during sleep. It tracks sleep and wake cycles and can help determine how well sleep disorder treatment is working.
- Electroencephalogram (EEG): This test measures electrical activity in the brain to help identify potential problems with this activity. It is part of a polysomnogram.
- Sleep study: A recording of brain waves, oxygen levels, heart rate, breathing rate, eye and leg movements is done in a hospital or sleep center.
- Home apnea test: Records breathing rate, airflow, oxygen levels, heart rate, and blood vessel tone.

- Multiple Sleep Latency Test (MSLT): Measures daytime sleepiness and has you take 4-5 naps taken in two-hour intervals.
- Maintenance of Wakefulness Test (MWT): Measures daytime wakefulness and has you take 4-5 naps in two-hour intervals.
- Upper Airway Nerve Stimulation Therapy Evaluation: A group of tests that help determine if a surgically implanted device is an appropriate intervention for obstructive sleep apnea.
- Overnight Oximetry Test: A measurement of heart rate and oxygen levels overnight, used as an indicator of potential drops in oxygen levels during sleep.

Treatment for sleep disorders. Treatment for sleep disorders is determined not only by the type but also by the individual's underlying cause. This is because most of them usually involve some form of therapy and major lifestyle changes. [5] Treatment for sleep disorders usually involves a combination of non-medical and medical treatments.

Non-medical treatment:

Cognitive behavioral therapy (CBT): Cognitive behavioral therapy (CBT-1) is a treatment that aims to replace negative thoughts and beliefs about sleep with positive ones, thereby improving sleep quality. It also teaches the patient how to change sleep habits that will keep them awake. Video CBT sessions, as well as face-to-face CBT sessions, can be helpful. CBT includes approaches such as

- Sleep restriction therapy (SRT): SRT limits the time spent in bed. This increases sleep.
- Stimulation therapy: This helps patients change their sleep patterns so that they do not have difficulty falling asleep. Patients should not lie down if they do not feel sleepy. In addition, the bed should only be used for sleeping. Therefore, it should not be used for watching television or reading.
- Relaxation therapy: Relaxation techniques can be used before bed. This type of relaxation technique includes meditation and breathing exercises. [6]
- Sleep hygiene: This is a set of education on lifestyle and environmental factors that interfere with sleep. These areas include teaching normal sleep patterns, avoiding substance use, regular exercise, bedroom environment, bedtime and wake times, and avoiding daytime sleepiness.[7] Sleep hygiene education alone is less effective than CBT-I in people with poor sleep or insomnia.

Continuous positive airway pressure (CPAP) therapy: This is the most common therapy for patients with obstructive sleep apnea. A CPAP machine is worn by the patient with obstructive sleep apnea only while sleeping. The device consists of a tube that connects to a mask. The mask is placed over the patient's mouth or nose. [8] The device helps to force air into the patient's airway at a specific pressure, which then enters the patient's airway, thus preventing obstruction while the patient is sleeping. [9]

Treatment: Treatment for sleep disorders may include medications or pharmacological agents, such as:

- Sleeping pills
- Melatonin tablets
- Cold or allergy medications
- Medications to treat any underlying condition
- CPAP machines/surgery (best for sleep apnea)
- Oral appliance therapy in the form of a night guard (most often for bruxism)

When should you seek medical attention for a sleep disorder?

Some signs that you should see a doctor for a sleep disorder include:

- Constantly unable to fall asleep or stay asleep
- Excessive daytime sleepiness
- Loud snoring or frequent breathing in the middle of the night
- Waking up multiple times during the night
- Waking up tired
- Difficulty concentrating or staying focused
- Feeling irritable or moody
- Excessive daytime sleepiness and impaired performance

If you are experiencing one or more of these symptoms, it is important to see a doctor so that you can find out the cause of the problem and find alternative treatments. [10]

Summary

Sleep disorders can impair quality of life; however, their diagnosis and treatment can help manage the disorder effectively. If a person is experiencing sleep-related problems, it is important to see a doctor as soon as possible. Addressing sleep-related problems can improve overall health, well-being, and productivity.

Yashoda Hospitals, Hyderabad offers comprehensive sleep disorder care with a team of experts who specialize in insomnia, sleep apnea, narcolepsy, and restless legs syndrome. They use advanced diagnostic techniques and personalized treatment plans to help patients achieve restful sleep and improve their overall well-being.

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