ARTICLE

Screening for Sleep Apnea in Psychiatry

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A thorough medical workup is strongly encouraged when evaluating a person with psychiatric symptoms in order to rule out treatable conditions that could have psychiatric manifestations, such as anemia, hypothyroidism, and B12 deficiency. Yet one significant mental health comorbidity that often goes overlooked is sleep apnea.

Sleep apnea can contribute to a variety of health problems. It is an independent risk factor for numerous medical conditions, including type 2 diabetes mellitus (1), hypertension, coronary artery disease (2), myocardial infarction, atrial fibrillation (3), polycystic ovarian syndrome (4), and stroke, among others. In psychiatry, sleep apnea is an independent risk factor for depression and neurocognitive impairment (5) and is associated with chronic pain, chronic fatigue, attention deficit hyperactivity disorder (6), and insomnia. Furthermore, sleep apnea has a strong bidirectional relationship with anxiety disorders (7). For example, numerous studies have demonstrated that individuals with posttraumatic stress disorder have a higher prevalence of obstructive sleep apnea compared with the general population and that symptoms improve with sleep apnea treatment (8). It is therefore important for patients with psychiatric disorders to receive the correct diagnosis and that any barriers to sleep apnea treatment be overcome, especially with regard to sleep apnea that seems to be treatment resistant to multiple psychopharmacological and therapeutic interventions.

There are several factors that put patients with psychiatric disorders at risk for sleep apnea. Substance use can be a significant risk factor for sleep apnea, especially with sedating substances such as alcohol and narcotics. Alcohol use has been found to be a highly significant risk factor for sleep apnea (9). It is theorized that alcohol increases the risk by decreasing the breathing drive and relaxing the muscles of the upper airways, which in turn causes more obstructive episodes (10). Similarly, sedating drugs, such as opiate pain medications and opioid street drugs, can increase the frequency of obstructive episodes through the same mechanism but may also cause central sleep apnea and ataxic breathing (11). Patients with psychiatric disorders who use psychotropic medications with sedating side effects, metabolic side effects, or an antipsychotic-associated weight gain profile may be at greater risk for developing obstructive sleep apnea compared with patients not taking psychotropic medications.

Current guidelines, published in 2017 by the American Academy of Sleep Medicine (12), recommend that patients with numerous risk factors for sleep apnea be referred to a sleep specialist for a comprehensive sleep evaluation, at which time a decision to pursue sleep polysomnography will be made. Therefore, it is quite valuable to screen for sleep apnea among patients with symptoms or risk factors, which will enable their referral to a sleep specialist. There are a number of screening questions one could ask to help identify patients that may need further evaluation by a sleep specialist (see box).

Screening for symptoms associated with sleep apnea can easily be woven with the discussion of symptoms normally reviewed in a psychiatric interview. Common symptoms suggestive of sleep apnea include low energy, daytime fatigue, snoring, hypertension, frequent nighttime urination, and morning headaches (see box). For snoring, clinicians should inquire whether anyone has complained that the patient snores loudly or whether a bed partner has worried about the patient after witnessing him or her stop breathing during sleep. Some patients with sleep apnea may have morning headaches, which are likely caused by hypoxemia or hypercarbia from breathing obstruction and hypoventilation (13). Frequent nighttime urination, often between 2:00 a.m. and 4:00 a.m., can be a symptom of sleep apnea (14). Increased intrathoracic pressure from inspiratory effort against a closed glottis increases cardiac preload on the right atria, resulting in a signal of fluid overload on atrial myocyte stretch receptors. This causes the release of atrial natriuretic peptide, which signals the kidneys to increase glomerular filtration, resulting in increased urination (15). Female patients may develop new-onset symptoms during perimenopause or menopause due

Common Symptoms of Sleep Apnea

Frequent reports of low energy, daytime fatigue, or difficulty staying asleep throughout the night
Loud snoring, witnessed apnea or gasping or choking
Diagnosed hypertension
Awakening in the morning with a sore throat or dry mouth
Presence of morning headaches
Frequent nighttime urination (often between 2:00 a.m. and 4:00 a.m.)
New onset of symptoms during perimenopause or menopause in female patients

to changes in estrogen levels (16). If any of the aforementioned symptoms are present, a sleep medicine referral for a sleep study might be warranted.

Some psychiatric symptoms may be explained by undiagnosed sleep apnea. Symptoms such as daytime fatigue, poor energy level and motivation, poor concentration and cognitive function, decreased libido, and frequent nighttime awakenings may initially appear to be symptoms of depression but may in fact be better explained by undiagnosed sleep apnea (17). Although depression can exist independently of sleep apnea and vice versa, a sleep study showing multiple apneic episodes during sleep would be unusual for depression alone and would be diagnostic of sleep apnea (12). Hobzova et al. (18) reported that depressive symptoms (measured with the Beck Depression Inventory) and cognitive function (attention, working memory) improved after 1 month among a group of volunteers who received continuous positive airway pressure treatment compared with volunteers in a control group who received no treatment. These symptoms are more concerning among patients who are at high risk for developing sleep apnea due to a history of obesity, diabetes, sedative or opiate use, alcohol use, or hypertension (12). A referral to sleep medicine might be warranted for patients with more than one of the aforementioned symptoms or risk factors.

Further investigation of symptoms may be required for patients who already carry the diagnosis of sleep apnea and have been given a continuous positive airway pressure device but continue to experience daytime sleepiness, poor energy levels, and poor motivation. Oftentimes, low treatment compliance due to discomfort is a major obstacle for patients (19). It is important to inquire how often a patient uses a continuous positive airway pressure device. If the device is not used every night, there may be reasons for poor compliance. Some patients awaken with a feeling of uncomfortable pressure and take their masks off. To alleviate this discomfort, many devices have a "ramp" feature that temporarily decreases the pressure to allow patients to fall asleep again (20). Many patients find the mask or air pressure to be uncomfortable and claustrophobic. Therefore, it is important for clinicians to discuss different mask types and treatment modalities or recommend desensitization strategies employed by sleep therapy providers (21). Occasionally, patients cannot tolerate continuous positive airway pressure but may be able to better tolerate bilevel positive airway pressure, in which the air pressure is lower during exhalation (20). However, patients may experience mouth and throat dryness after use. Many systems come with humidity settings and a water reservoir to help humidify the air to make it more tolerable (22). Rarely, patients use the same mask and tubing for longer than the recommended 6 months, resulting in mask and tubing leaks that can prevent adequate humidification or contribute to sleep fragmentation due to noise associated with a mask leak (20). Therefore, it is helpful to inquire how often the patient changes the equipment.

Given the large degree of overlap between many psychiatric symptoms (daytime fatigue, poor energy level, decreased motivation, poor concentration and cognitive function, decreased libido, and frequent awakenings at night) and sleep apnea, it behooves providers to consider this diagnosis in patients. Employing some minimal screening techniques may enable us to identify obstructive sleep apnea and increase treatment and intervention and to ultimately make a substantial difference in the lives of our patients.

KEY POINTS/CLINICAL PEARLS

- Sleep apnea can contribute to a variety of medical and psychiatric conditions.
- Patients with psychiatric disorders are at greater risk of developing sleep apnea compared with patients without psychiatric disorders due to the higher frequency of opiate and alcohol use among populations with psychiatric disorders and the side-effect profiles of many psychiatric medications, including increased sedation, weight gain, and risk for diabetes, which are independent risk factors for sleep apnea.
- Frequent reports of low energy, daytime fatigue, and difficulty staying asleep throughout the night can be warning signs of sleep apnea, especially among patients with a history of obesity, diabetes, or hypertension.
- Given the large degree of overlap between many psychiatric symptoms and sleep apnea, it behooves providers to consider this diagnosis in patients.

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