

Treatment of Obstructive Sleep Apnea Linked to Short and Long Term Decrease in Symptoms of Depression

Jonathan R.L. Schwartz, MD

*Medical Director, Integris Sleep Disorder Center
Clinical Professor of Medicine
University of Oklahoma Health Sciences Center
Oklahoma City, Oklahoma*

Obstructive sleep apnea (OSA) shares many symptoms with depression.^{1,2,3} These shared symptoms include daytime sleepiness, fatigue, and reduced motivation.⁴ In the past, multiple studies have demonstrated that short-term treatment for OSA in the form of continuous positive airway pressure (CPAP) is associated with improvement of symptoms of depression.^{1,5} A recent study also reports that long-term CPAP therapy is associated with a significant and sustained decrease in depressive symptoms.⁵ A growing body of evidence showing links between treatment for OSA and reduction in depressive symptoms suggests that screening for OSA and other sleep disturbances by healthcare professionals should become a standard practice in patients with symptoms and signs of depression.

Overview of OSA

OSA is a serious and under-diagnosed medical condition, characterized by impaired breathing during sleep. Studies indicate that one in five adults suffer from OSA, ranging in severity from mild to severe.⁶ Approximately 24% of men and 9% of women have OSA, and nearly one-third of men between the ages of 50 and 60 experience some degree of breathing impairment (apnea or hypopnea) during sleep.⁷ An apnea is defined as a complete obstruction of the upper airway lasting ten seconds or longer and associated with oxygen desaturation, central nervous system (CNS) arousal, or both. A hypopnea is defined as partial

obstruction of the upper airway with decreased ventilation lasting ten seconds or longer resulting in oxygen desaturation, CNS arousal, or both. Despite the prevalence of these figures, as many as 80% of those suffering from OSA go undiagnosed.⁸

Common signs and symptoms of sleep apnea include:

- Obesity
- Snoring
- Excessive daytime sleepiness and fatigue.
- Neck size of greater 17 in for males, 16 in for females.
- Morning headaches
- Elevated blood pressure
- Poor motivation
- Memory loss/difficulty concentrating – decreased cognitive functioning.
- Depressive symptoms

Comorbidities: The Associated Health and Safety Risks of OSA

OSA causes a decrease in quality of life through a variety of factors. Undiagnosed OSA can affect an individual's work life and their ability to sustain a healthy and active lifestyle. There are also more wide-ranging safety effects. As one example, among individuals who have traffic accidents the prevalence of OSA is significantly higher than average.⁸

Most alarmingly from a public health perspective, OSA has demonstrated links