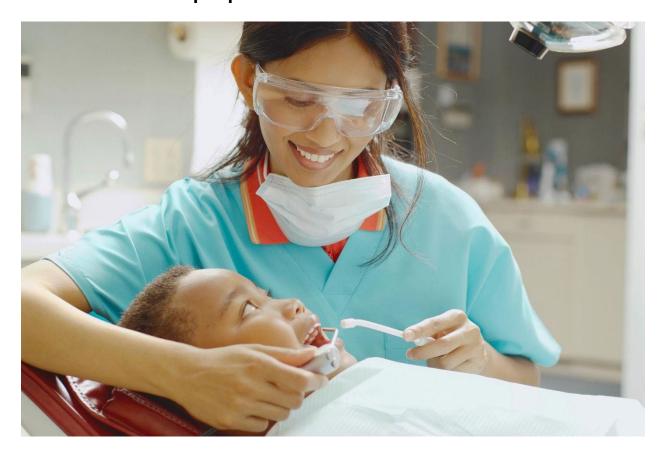
The Role of Dentistry in the Detection and Diagnosis of Obstructive Sleep Apnea (OSA)



January 24, 2024

Did you know that a dental office can arrange a home sleep apnea test and treatment with the cooperation of a medical doctor?

With the 2019 adoption of the American Dental Association <u>policy statement</u> on the role dentistry can play in the treatment of sleep-related breathing disorders, all dental offices should now be screening their patients for sleep apnea. It is also an effective way for a dental office to improve the health outcomes of their patients and expand their practice.

The reasons include:

- Approximately 90 million American adults snore and 42 million have sleep-disordered breathing (SDB).
- 1 in 5 adults have mild obstructive sleep apnea (OSA).

- 1 in 15 have moderate to severe OSA.
- 9% of middle-aged women and 25% of middle-aged men suffer from OSA.
- 75% of severe SDB cases remain undiagnosed.
- The prevalence of OSA is greater than asthma (20 million) and diabetes (23.6 million) in the U.S. population.

Dental practices are ideally positioned to significantly increase the current 10% diagnosis and 5% treatment rates of OSA because:

- It is estimated that approximately 66% (ages 18-61) of the American population will make at least one visit to their Primary Care Physician (PCP) annually.
- It is further estimated that 33% of visits are for annual wellness check-ups and preventative care.
- So only 22% of the American population (ages 18-61) go to their PCP annually for wellness check-ups.
- By contrast, in 2020 the percentage of adults aged 18–61 who had a dental visit in the past 12 months was 62.7%, with men at 59.6% and women at 65.8%.
- **80% of children** (ages 1-17) have had an annual dental examination and cleaning. It is assumed that the family's "chief medical officer" accompanied their child on those visits.

Given the statistics, it is clear that a far larger portion of the population is seen annually by hygienists for cleanings and dentists than by a PCP for wellness checkups.

Every home has a "chief medical officer." Though not an official designation, the job description is clear: This is the person who researches, analyzes, and decides on the best course of healthcare for everyone in the home. This individual is also more likely to undergo regular dental cleanings themselves, and often accompany their children during checkups.

A dental hygienist can educate household "chief medical officers" about the dangers of untreated OSA, and how to screen for it at home. But also, if warranted, the hygienist can provide a simple questionnaire such as the STOP-Bang Questionnaire and Epworth Sleepiness Scale, or send these questionnaires home with the patient if another family member is symptomatic. The questionnaires are easy to complete and self-score and they guide whether a home sleep test (HST) should be ordered.

Our emphasis on diagnosing and treating children for OSA before they become sick adults is based upon the fact that the damage and health consequences of unmanaged sleep apnea are

cumulative, and currently, no treatment option has had a meaningful impact on the development and progress of co-morbidities associated with OSA due to the discomfort of current treatments. The "chief medical officer" of the household is the first line of screening, and hygienists are ideally positioned to teach them how.

Given the severe health consequences of untreated sleep apnea and the number of children and adults affected, it's clear that hygienists and dentists have an opportunity to improve patient outcomes and expand their practices by diagnosing and treating sleep apnea. Once diagnosed, many of us hope that treating OSA with an easier-to-use and more comfortable-to-wear option will dramatically increase the current 10% diagnosis and 5% treatment rates and improve the health - and lives - of millions.

About the Authors

David B. Goldstein is a Director and Co-Founder of WhisperSom Corporation, a medical device and informatics company specializing in the diagnosis, treatment, and monitoring of the efficacy of treatments for sleep-disordered breathing. David was on the verge of 'sleep divorce' because of his snoring when he was diagnosed with OSA. While David uses CPAP, he was influenced by a discussion with a dentist who also used CPAP, to use his electrical and audio engineering knowhow to invent a more comfortable treatment for sleep apnea. The result is WhisperSom's Personalized Sleep Technology™ (aka PST™), which uses haptic-acoustic neuromodulation to prevent snoring and apneas and improve sleep.

Michael G. Nathans is the CEO and Co-Founder of WhisperSom Corporation. He apprenticed in his father's dental office and holds a degree in Biology and Pre-healing Arts from Franklin & Marshall College. He has a 35-year business background that includes 5 years at PwC, two U.S. patents, two grants from the Ford Foundation, and investments from Citigroup, Fannie Mae, Maryland Economic Development Corporation, and the Omidyar Network. Today, Michael is leading an initiative in conjunction with dentists on WhisperSom's Medical and Scientific Advisory Board, to develop a protocol and business process that will make it both possible and desirable for family dental practices to participate in the revenues that are spent by health plans to diagnose and treat those with OSA.

Follow WhisperSom on <u>LinkedIn</u>, <u>Twitter X</u>, <u>YouTube</u>, and <u>Facebook</u>, and visit <u>WhisperSom.com/Library</u> for more discussions about sleep apnea and raising the 10% diagnosis and 5% treatment rates through awareness, collaboration, and advanced precision medical technology.

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