LETTER TO THE EDITOR

The New DDS – "Dentists Diagnosing Sleep"

Michael S. Simmons, DMD, MSc, MPH^{1, 2}, Colin M. Shapiro, MBBCh, PhD, MRCPsych. FRCPC³⁻⁵

¹ UCLA School of Dentistry (1987-2018), ² Encino Center for Sleep and TMJ Disorders, ³ University of Toronto, Canada, ⁴ International Sleep Clinic, Parry Sound, ⁵ Youthdale Child and Adolescent Sleep Clinic

Sleep-related breathing disorders (SRBDs) are an unmet public health problem¹ and dentists, as primary care providers, are primed as great contributors to resolving this problem.

The Frost and Sullivan report², commissioned by the American Academy of Sleep Medicine (AASM), portrays conditions in the best light, that 12% of the adult population has obstructive sleep apnea (OSA). This report further clarifies that approximately 10% of those who have OSA are managed by current protocols, leaving 90% untreated.

In contrast, epidemiologists³ report that more than 25% of the adult US population have OSA and research on outcomes of gold-standard treatment protocols⁴⁻⁸ indicates that less than 2% of the population with OSA are treated with these therapies. In reality, more than 98% of those with OSA in the United States are untreated.

This startling finding illustrates that the current approaches in managing OSA in the United States are unsuccessful because a large number of individuals with OSA do not receive treatment due to lack of access to diagnosis and/or care. Snoring, a less severe form of SRBD, is addressed to an even smaller degree with current AASM protocols, leaving a more profound gap in health care and access to care. This gap in sleep health care was formally reported in the landmark 2006 Institute of Medicine report¹, which summarized that more of the healthcare work force, specifically including dentistry as a discipline, must be recruited to help address the unmet need in otherwise noncomplex cases. Essentially, more healthcare workers, including those from neuroscience, dentistry, nursing and pharmacy, are needed to provide access to care for the many individuals in whom SRBD is undiagnosed and untreated.

It is a myth, based on opinion and territorialism⁹, that properly trained dentists cannot diagnose and treat most SRBD conditions. Enabling dentists in the diagnosis and management of SRBD mitigates some of the access to care issues that prevent most patients with SRBD from being treated. Dentists, like physicians and nurse practitioners in some states, with adequate training, can make a diagnosis of most SRBD conditions by taking a detailed sleep history and reviewing the results of a

sleep study they potentially prescribe, that is interpreted by a qualified sleep physician. Dentists can provide an oral appliance and other therapies that address SRBD conditions. Dentist-provided therapies, such as oral appliance therapy for SRBD, are clinically validated as effective and most often are more tolerable and more frequently used than gold- standard positive airway pressure treatment options.

When a dentist provides care for sleep disorders, that dentist is liable for outcomes. This liability is not transferred but perhaps shared with a co-treating physician. With this liability comes the responsibility to practice sleep medicine according to the standard of care within the community. This is no different for management of other dental/medical conditions such as periodontal disease, oral cancer, and orofacial pain disorders. Because dentists are liable for treatment outcomes they provide for SRBD, these same treating dentists also share liability in the other aspects of the SRBD care, including accurate diagnosis and treatment options given to patients.

A recent "legal" opinion published by a giant California-based dental laboratory encourages dentists to provide treatment for SRBD without diagnosis, due to extended sleep physician evaluation wait times¹⁰. Enabling diagnosis is the solution not indirectly enabling treatment of an unknown disorder and then hoping the patient will arrive at a diagnosis that fits the treatment¹¹. Enabling diagnosis requires health care leadership to both support those dentists who can help address this public health problem as primary care providers and encourage more dentists to gain this expertise.

CITATION

Simmons MS, Shapiro CM. The New DDS – "Dentists Diagnosing Sleep." *J Dent Sleep Med*. 2020;7(1)

REFERENCES

 Institute of Medicine (US) Committee on Sleep Medicine and Research; Colten HR, Altevogt BM, editors. *Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem.* Washington (DC): National Academies Press (US); 2006. Available from: doi:

https://www.ncbi.nlm.nih.gov/books/NBK19960/ 10.17226/11617

- Frost & Sullivan. Hidden Health Crisis Costing America Billions: Underdiagnosing and Undertreating Obstructive Sleep Apnea Draining Healthcare System. Darien, Am Acad Sleep Med 2016. 2016.https://aasm.org/resources/pdf/sleep-apnea-economiccrisis.pdf. Accessed December 20, 2019.
- Peppard PE, Young T, Barnet JH, Palta M, Hagen EW, Hla KM. Increased prevalence of sleep-disordered breathing in adults. *Am J Epidemiol.* 2013;177(9):1006–1014.
- Wolkove N, Baltzan M, Kamel H, Dabrusin R, Palayew M. Fidélité á long terme au traitement par ventilation spontanée en pression positive continue chez des patients atteints d'apnée obstructive du sommeil. *Can Respir J.* 2008;15(7):365-369. doi:10.1155/2008/534372
- 5. Stuck BA, Leitzbach S, Maurer JT. Effects of continuous positive airway pressure on apnea-hypopnea index in obstructive sleep apnea based on long-term compliance. *Sleep Breath*. 2012;16(2):467-471.
- 6. Kushida CA, Littner MR, Hirshkowitz M, et al. Practice parameters for the use of continuous and bilevel positive airway pressure devices to treat adult patients with sleep-related breathing disorders. *Sleep.* 2006;29(3):375-380.
- McArdle N, Devereux G, Heidarnejad H, Engleman HM, Mackay TW, Douglas NJ. Long-term use of CPAP therapy for sleep apnea/hypopnea syndrome. *Am J Respir Crit Care Med*. 1999;159(4 Pt 1):1108-1114.
- Engleman HM, Wild MR. Improving CPAP use by patients with the sleep apnoea/hypopnoea syndrome (SAHS). *Sleep Med Rev*. 2003;7(1):81-99.
- 9. Quan SF, Schmidt-Nowara W. The role of dentists in the diagnosis and treatment of obstructive sleep apnea: consensus and controversy. *J Clin Sleep Med*. 2017;13(10):1117–1119.
- Park N. Interview with Ken Berley, DDS, JD. Glidewell Dental. https://glidewelldental.com/education/chairside-dentalmagazine/volume-14-issue-3/legal-perspectives-appliancetherapy-dental-sleep-medicine. Accessed December 20, 2019.
- Chidambaram R. Good News: Dentists are Competent in Diagnosing Undiagnosed Sleep Apnea. J Coll Physicians Surg Pak. 2017;27(5):321.

https://www.researchgate.net/publication/317525109_Good_New s_Dentists_are_Competent_in_Diagnosing_Undiagnosed_Sleep_ Apnea. Accessed December 20, 2019.

SUBMISSION AND CORRESPONDENCE INFORMATION

Submitted in final revised form November 15, 2019 Accepted for publication November 26, 2019

Address correspondence to: Michael S. Simmons, DMD, MSc, MPH, 16500 Ventura Blvd., Suite 370, Encino, CA 91436, Phone: 818-300-0070; Email: msimmons@g.ucla.edu.

DISCLOSURE STATEMENT

The authors report no financial conflicts of interest.