

Perspectives on Understudied Research Topics in Dental Sleep Medicine

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The field of dental sleep medicine (DSM) has grown in leaps and bounds over the last decade. Nevertheless, many unanswered questions remain. As such, we reached out to members of the DSM research community to hear their thoughts about which topics are still understudied.

IN YOUR OPINION, WHAT IS THE MOST CURRENTLY UNDERSTUDIED TOPIC IN DENTAL SLEEP MEDICINE RESEARCH?

“Dental sleep medicine and its impact on management of chronic orofacial pain and systemic co-morbidities. Obstructive sleep apnea (OSA) is a chronic sleep related breathing disorder with hallmark features of repetitive obstruction of the upper airway accompanied by sleep fragmentation and hypoxia. The consequences of undiagnosed/ untreated OSA includes high risk of multiple systemic conditions and entails a heavy burden on the healthcare resources.

There is a high prevalence of numerous comorbidities with OSA, including and not limited to orofacial pain (OFP), temporomandibular disorders (TMDs), chronic pain and systemic conditions. TMDs are one of the most common OFP conditions. The OPPERA study (Orofacial Pain: Prospective Evaluation and Risk Assessment) was a landmark study which reported that patients with two or more symptoms of OSA had a 73% higher hazard of developing TMD's.

Emerging evidence suggests OSA may be a risk factor for development of chronic pain and systemic comorbidities. There may also be bidirectional relations or common underlying biological pathways resulting in the development of OSA, chronic OFP and systemic comorbidities. OSA may possibly exacerbate these conditions and play a role in their chronification. The nature and magnitude of these associations may influence clinical decision-making and influence prognosis. The outcomes of the primary condition may worsen outcomes for OSA or conversely management of OSA may improve sleep quality and comorbid conditions.

Previous studies have reported that dentists may play a significant role in screening and referring patients with systemic conditions. The role of DSM and its benefits in

complementing the standard of care for OFP conditions and systemic comorbidities has not been explored. Management of OSA, particularly mild and moderate OSA, with DSM may be complementary to standard of care and result in reducing the healthcare and economic burden.”

- *Mythili Kalladka, BDS., MSD*

“Dental sleep medicine has been a topic of great interest over the last couple of years. The multidisciplinary approach to addressing sleep disturbances and the vision of an integrative medicine putting patients first, turned dentists into first-line screeners for sleep-related breathing disorders response.

Although there have been many advances in this field, several issues are still underdiagnosed and understudied. Therefore, I will mention some topics that I consider as needing intense study and research.

The relation between oral pathology such as periodontal disease, burning mouth syndrome and Sjogren are oral co-occurrences that need to be studied more in their relation to OSA, particularly on menopausal women. This particular population group is underdiagnosed, neglected and the studies on this topic are rare. Not to mention pregnant women, a population highly protected from research and investigation and, therefore, very difficult to study. The negative impacts of OSA on pregnant women and babies are huge, and there is a necessity for guidelines specifically for this special population.

The relation of OSA and edentulous patients, in particular the elderly population, and use of removable prosthesis are also a topic of high interest. Not to mention the relation of intra-oral vertical dimension on the support of soft facial tissues and the importance of those on the adaptation of CPAP masks.

There is also a lack of focus on pediatric sleep, and on the facial skeletal growth of children; we should be aware that “forms follow function,” and therefore it might be a compromise between growth, function and posture. Earlier diagnoses and treatment have a positive impact on children's health, school performance and quality of life!

To conclude, I also believe that there is a necessity to

study the impact of preventive programs and public health awareness and as part of the DSM field.

- Susana Falardo Ramos, DDS, MSc, PhD, IC-ABDSM, EL-EADSM

What are your thoughts on understudied topics in DSM? Join the conversation by posting on the [AADSM Discussion Board](#) today!

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Left to Right: Drs. Mythili Kalladka & Susana Falardo Ramos