



Associations Between Oral Behaviors and Otological Symptoms: A Cross-Sectional Study in an Orofacial Pain Population

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Introduction & Objective

Parafunctional oral behaviors—such as bruxism—are associated with temporomandibular disorders (TMD) (1). There is increasing evidence linking TMD to otological symptoms such as ear pain, aural fullness, tinnitus, dizziness, and hearing-related sensations (2,3). These associations are believed to result from anatomical and neurological connections between the TMJ and auditory systems (4,5). This study aims to evaluate the association between oral behaviors and otological symptoms in individuals with orofacial pain.

Materials & Methods

A cross-sectional study with 142 patients from the Occlusion Unit, Egas Moniz Dental Clinic. Validated questionnaires were applied to assess the risk of parafunctional oral activity (Oral Behaviors Checklist - OBC), the presence of otological symptoms (6), and their impact on quality of life (Tinnitus Handicap Inventory - THI) (7). Statistical analysis used Pearson's correlation with a significance level set at $p < 0.05$.

Results & Discussion

A correlation was observed between oral behaviors and otological symptoms ($r = 0.22$), reinforcing the importance of evaluating the stomatognathic system in patients with ear-related complaints. A correlation was also found between oral behaviors and tinnitus impact (THI) ($r = 0.28$), suggesting that habits such as bruxism may influence tinnitus perception, possibly due to interactions with the temporomandibular joint (TMJ). These findings highlight the relevance of a multidisciplinary diagnostic and therapeutic approach, involving both orofacial pain specialists and otolaryngologists. The observed correlations suggest that parafunctional oral behaviors may contribute to or exacerbate otological symptoms, especially tinnitus, likely due to shared anatomical and neurological pathways between the TMJ and the auditory system. Recognizing these interactions is essential for comprehensive management of patients presenting with both orofacial and auditory complaints.

Conclusion

Parafunctional oral behaviors appear to be associated with both otological symptoms and the impact of tinnitus on quality of life. These results underscore the importance of **assessing the stomatognathic system in patients with auditory complaints** and support the need for **interdisciplinary collaboration** in diagnosis and treatment.

References

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