

Review Article

Oral Health-Related Quality of Life in Patients with Temporomandibular Disorders: A Review

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Abstract

Patients' quality of life is impacted by the signs and symptoms of temporomandibular disorders (TMD) because they make it difficult for them to engage in everyday activities, which results in both physical and psychological discomfort. The quality of life associated with oral health (OHRQoL) is regarded as a crucial component of various oral disorders. In recent years, it has also drawn more attention to temporomandibular disorders (TMDs). The goal of this review is to present the most accurate, thorough, and current description of all the data on OHRQoL in TMD that is currently accessible. The Oral Health Impact Profile, a tool with strong psychometric qualities, was employed in the majority of investigations. A significant influence on OHRQoL in TMD patients was reported. Few percent of patients reported no effect at all. Patients with more signs and symptoms seemed to be more affected. Pain appears to have a significant perceived impact on OHRQoL. According to research, TMD patients' impact grew with age. The review provided strong evidence that TMD patients' OHRQoL was negatively impacted.

Keywords: Craniomandibular disorders, Oral Health Impact Profile, pain, quality of life, temporomandibular disorders OHIP-TMD, diagnostic criteria for TMD

Introduction:

The American Academy of Orofacial Pain categorizes temporomandibular disorders (TMD) as a set of musculoskeletal illnesses that impact the temporomandibular joint (TMJ), the masticatory muscles, and the associated anatomy.¹ Pain in the TMJ area and palpation of the masticatory muscles, ear pain and other otologic symptoms, joint noise, mandibular misalignment, restricted mouth opening, fatigue and muscular weariness, headaches, and tooth wear are the main symptoms associated with these illnesses.² Many elements of temporomandibular disorders (TMDs), such as diagnosis, prevalence, origin, and therapy, have been the subject of differing perspectives over the years. Many TMD-related fields have advanced, and most specialists now seem to concur that TMDs—as well as the related craniomandibular disorders (CMDs)—represent a variety of clinical issues involving the temporomandibular joints (TMJs), masticatory muscles, and related structures.³

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Despite wide variations in incidence, epidemiological research has shown that TMD indications and symptoms are widespread⁴. A research of two cohorts of 50-year-old participants, one evaluated in 1992 and the other in 2002, found a tendency toward an increasing prevalence of TMD-related symptoms over a 10-year period⁵. Oral health related quality of life (OHRQoL) involves evaluating patients' emotional, social, and behavioral functioning levels when their health is compromised. The self-perception of OHRQoL is adversely affected by the presence of TMDs. Therefore, it appears that one of the most significant components of OHRQoL associated with TMDs is pain. It has been demonstrated that the impact of TMDs on OHRQoL is higher than that of dental, periodontal, or neurologic/vascular orofacial pain disorders, but lower than that of dental anxiety.⁶ It is common knowledge that periodontitis and caries have detrimental impacts on oral function, discomfort, and attractiveness. Just 21% of patients in a stratified random Swedish sample reported having no well-being-related issues, whereas 79% reported having some oral issues linked to quality of life⁷. As shown in the review that follows, a few studies have also documented a lower OHRQoL in TMD patients. The results are challenging to interpret because different tools and measurement systems have been used. The review aims to synthesize evidence on how temporomandibular joint disorders affect the oral health related quality of life.

Measurement tools in oral health related quality of life

Numerous techniques have been used to evaluate OHRQoL. Only three of the ten instruments mentioned in Slade's overview⁸, Activities of Daily, the internet search revealed that TMDs had been used in conjunction with the General/Geriatric Oral Health Assessment Index (GOHAI)⁹, the Oral Health Impact Profile (OHIP)¹⁰, and the Living (ADL)¹¹. Before any multiple-item questionnaire was created, Reisine and colleagues used seven standard measures with established validity and reliability as indicators for QoL. The authors' hope that the indicators could serve as a foundation for future QoL measure development has undoubtedly been fulfilled. Patients with orofacial pain and TMD have had their activity of daily living assessed from a methodological perspective using the Pain Disability Index¹². Individuals with myogenous sensations were more impacted than people with discal conditions.

The OHIP is currently the most popular OHRQoL tool. It has been translated and certified in Chinese, German, Swedish, Italian, Hungarian, Japanese and Slovenian. The OHIP has been utilized in both the original 49-item format and in shorter variations. Additionally, the English short form, OHIP 14, has been assessed in Portuguese, Hebrew, and Sinhalese. Additionally, a five-item abbreviated form in German has been created. Although TMD patients were included in some of these methodological studies, the results were frequently hard to interpret since they were combined with data from other subgroups. However, it seems that pain has a detrimental effect on quality of life. Compared to other diagnostic categories, TMD patients show more restrictions on OHIP subscales. The measurement is susceptible to variations in the severity of TMD. General methodological features of oral health and QoL instruments have been covered in a number of articles. Disease-specific tools for evaluating. Additionally, QoL has been created for orofacial pain and TMDs, however its application has been limited thus far.

Impact of temporomandibular disorders in Oral health related quality of life (OHRQoL)

The main finding of this review is that the self-perception of OHRQoL is adversely affected by the existence of TMDs.^{13,14} Conventional clinical metrics do not take into account all characteristics of a condition. Because it combines the multifaceted nature of symptoms, perceptions, and functional capacity, the idea of OHRQoL has consequently drawn more attention. The WHO provided the conceptual foundation for QoL metrics. Assessment of patients' emotional, social, and behavioral functioning is part of quality of life (QoL). QoL in patients with illnesses and chronic pain conditions has been evaluated in a large number of medical studies. Locker presented the idea to the field of dentistry. It is thought to be crucial to assess patient-based judgments of psychosocial indicators using valid and trustworthy tools. Comparing patient groups, clinics, treatment requirements, and results is made possible by standardized protocols. The most used tool for assessing OHRQoL is the OHIP. This scale has good psychometric qualities and is based on a number of important ideas. The 49 questions in the original English edition are divided into seven subscales that evaluate the frequency and seriousness of oral issues. The OHIP subscales measuring psychological discomfort and disability are more frequently impacted in TMD patients, while the subscales measuring social disability and handicap are least affected¹⁵. Subjective symptoms (including social, cognitive, and psychological aspects; Helkimo's Ai) have been reported to have a stronger correlation with OHRQoL than clinical data (Helkimo's Di). Additionally, Axis I (clinical results) in OHRQoL is less significant than Axis II [the psychosocial evaluation in the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) categorization]¹⁶. The impact on OHRQoL increased with the severity of symptoms as measured by the Temporomandibular Index and the number of Axis I diagnoses in the same patient.¹⁵ TMD patients with muscular diagnoses, arthralgia, or disk displacement without reduction were linked to worse OHRQoL than patients with disk displacement with reduction.^{15,17} With the exception of joint noise, this latter diagnosis may be asymptomatic, therefore there are reasons to think that non-painful disorders have less influence. Pain appears to be one of the most significant features of OHRQoL associated with TMDs. Additionally, various diagnostic groups may have diverse psychological profiles. In TMD clinical series, women predominate. However, in every study that was examined, the variations in OHRQoL between men and women were negligible.^{18,19} Consequently, it seems that a greater impact of TMDs on women's lives cannot account for the higher female prevalence in clinical series. Conversely, there was a positive correlation between age and OHRQoL scores. Given that epidemiological research have shown that older people typically report TMD symptoms less frequently than younger persons, this also merits additional analysis.¹⁸ It has been demonstrated that patients with TMDs have a higher influence on OHRQoL than those with periodontal, dental, or neurologic/vascular orofacial pain problems, but a lower impact than those with dental anxiety.²⁰ However, one study reported that the effect was comparable to that of other dental diseases. Therefore, it seems that people with TMDs have different OHRQoL in a variety of ways. As a result, the review concludes that while assessing the many facets of TMDs, psychosocial as well as physical elements should be taken into greater consideration.^{13,21}

Conclusion

This study not only supports existing literature but also enriches our understanding, suggesting a shift towards more advanced materials that can reliably capture and maintain critical dental relationships over time. Future research should continue to explore and validate these findings across diverse clinical environments to further refine material selection and application strategies in fixed prosthodontics. Subjective TMD symptoms were more significant than clinical results, and the impact on OHRQoL increased with the severity and intensity of the TMDs. TMDs may affect OHQoL more than other orofacial disorders, illnesses, or conditions, according to some but not all reports. To address some of the unanswered problems regarding TMDs and OHRQoL, more study is necessary.

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