INPLASY

Assessing the Spectrum of Dental Interventions for Orofacial Pain Management: A Scoping Review

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INTRODUCTION

Review question / Objective This scoping review aims to synthesize existing literature on the various dental procedures employed in its treatment, evaluating their efficacy and outcomes.
1. What is the overall effectiveness of dental therapies in reducing the intensity of orofacial discomfort in patients?
2. How do different types of dental interventions compare in terms of their effectiveness in managing orofacial discomfort?

Condition being studied One of the most prevalent reasons for work absenteeism and patient visits to a dentist is experiencing discomfort in the oro-facial region. Pain is defined as an unpleasant sensation linked to a range of coexisting and exacerbating conditions. Various aspects of an individual's life are influenced by factors such as anxiety and depression. Acute pain typically serves as a warning signal and often

subsides after treatment or when the injured tissue has healed. In contrast, chronic pain, lasting beyond three months, induces changes in the nervous system, leading to heightened peripheral and central sensitization . Furthermore, chronic pain is associated with various psychological disorders. Chronic pain exacts substantial societal and personal tolls and profoundly impacts quality of life, particularly when it affects the oro-facial region. When evaluating the effectiveness of dental therapies for orofacial pain, this review underscores the importance of relying on patient-reported outcomes (PROs). While effectively quantifying pain intensity can be challenging due to its subjective nature, it is recognized as a crucial aspect in understanding pain perception. Patient-reported outcomes, such as Oral Health-Related Quality of Life (OHRQoL) and the Oral Health Impact Profile (OHIP), offer comprehensive assessments of how oral health issues, including pain, impact patients' lives. These instruments serve as valuable tools in assessing the success of

dental treatments and gaining insight into the multifaceted nature of orofacial discomfort.

METHODS

Participant or population Patients with orofacial pain.

Intervention In conducting our research, we aim to meticulously assess the efficacy of dental interventions in managing orofacial pain by undertaking a systematic scoping review. This review will collate and analyze existing studies to determine the range of outcomes and variability in treatment effectiveness, thereby providing a comprehensive overview of therapeutic options available for patients suffering from orofacial pain.

Comparator Not applicable.

Study designs to be included Randomized controlled trials, clinical trials, or prospective observational studies.

Eligibility criteria A meticulously designed data extraction form, created by the researchers, was employed to systematically gather research data. This form streamlined the extraction of critical details, including study design, study location and field, sample size and sampling methodology, data collection instruments, as well as the key findings from the full texts of the articles encompassed in the study. It is important to note that the data extraction process was carried out independently by both researchers, and the collected data were consolidated following a consensus-reaching process to ensure data accuracy and reliability.Quality Assessment In this systematic scoping review, the quality assessment of the articles was conducted using the criteria proposed by Polit and Beck (20, 21). These criteria enable the evaluation and scoring of the research's objective, methodology, sample characteristics, data analysis, limitations, results, and discussion section. Each of the 11 criteria is scored as "0 points - not meeting" or "1 point - meeting" the appropriateness of the article. The higher the total score, the higher the methodological quality of the respective research. It is required that the studies meet criteria at least with a score of eight.1. Research Objective: Assessing the clarity and appropriateness of the research objective or question.2. Methodology: Evaluating the study design, including whether it is appropriate for addressing the research objective and the adequacy of data collection methods.3. Sample Characteristics: Examining the representativeness and adequacy of the study sample, including

sample size, demographics, and inclusion/exclusion criteria.4. Data Analysis: Assessing the appropriateness of the statistical or analytical methods used to analyze the data and address the research question.5. Limitations: Identifying and discussing the limitations of the study, such as potential biases, confounding factors, or sources of error.6. Results: Evaluating the presentation and interpretation of the study results, including the clarity, relevance, and statistical significance of the findings.7. Discussion: Assessing the discussion section's relevance, coherence, and integration of the study results with existing literature.8. Conclusion: Evaluating the clarity and appropriateness of the conclusions drawn from the study results.9. Implications: Assessing the implications of the study findings for practice, policy, or future research.10. Generalizability: Examining the extent to which the study findings can be generalized to a broader population or context.11. Overall Quality: Providing an overall assessment of the article's quality based on the above criteria.

Information sources Reviewing Strategy In conducting this review, a comprehensive search strategy was employed without any date restrictions. Keywords "orofacial pain," "facial pain," "temporomandibular disorders," "dental treatment," and "dental interventions" were systematically utilized across various databases, including PubMed/MEDLINE, Embase, Cochrane Library, Web of Science, and Scopus. This extensive search approach aims to ensure the inclusion of relevant research from a broad spectrum of sources.
Screening of the Research
Through a rigorous keyword-based search strategy, a total of 1,112 studies published in peer-reviewed journals were initially identified. After thorough screening and application of inclusion and exclusion criteria, 11 articles were found to fully align with the inclusion criteria and were subsequently included in the review. It is noteworthy that the selection of studies was carried out independently by both researchers, ensuring a robust and unbiased selection process.

Main outcome(s) We believe that our findings will be of interest to the researchers due to its relevance in contemporary dental practice and its potential to contribute significantly to the field of orofacial pain management. The study also emphasizes the necessity for further research in this domain, thus opening new avenues for exploration and discussion within the academic community.

Quality assessment / Risk of bias analysis
Extraction of Data

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Strategy of data synthesis
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Subgroup analysis
Not applicable.

Sensitivity analysis
Not applicable.

Language restriction
English.

Country(ies) involved
Turkey.

Keywords
orofacial pain, facial pain, temporomandibular disorders, dental therapies, dental interventions.

Contributions of each author
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