

INPLASY

The correlation Between Psychological Factors and Temporomandibular Joint Disorders: A Systematic Review and Meta-Analysis

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ADMINISTRATIVE INFORMATION

Support - King Khalid University.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 February 2024 and was last updated on 20 February 2024.

INTRODUCTION

Review question / Objective The main objective of this study was to investigate the correlation between psychological factors and TMDs through a systematic review and meta-analysis by critically appraising the evidence of their association from peer-reviewed research articles.

Condition being studied Understanding the correlation between psychological factors and the development and progression of temporomandibular disorders is critical to enhancing temporomandibular disorders management. Therefore, this study aimed to investigate the correlation between psychological factors and temporomandibular disorders.

METHODS

Search strategy This study preparation and reporting adhered to the Preferred Reporting of

Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines.

Participant or population Patients with bruxism.

Intervention Psychological factors, including stress, anxiety, depression, and somatization.

Comparator Controls without TMD.

Study designs to be included Preferred Reporting of Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines.

Eligibility criteria Studies published in English.

Information sources A comprehensive literature search was conducted via PubMed and Cochrane Library to identify peer-reviewed research articles on the correlation between psychological factors like anxiety, depression, stress, and emotional distress on TMD.

Main outcome(s) Anxiety, depression, and stress were significant risk factors for the development and progression of temporomandibular disorders.

Additional outcome(s) Understanding the relationship between psychological factors and TMD is critical in optimizing treatment strategies for TMD. Practitioners should incorporate interventions targeting the psychological aspects of patients, including cognitive-behavioural therapy and other stress management techniques, to improve treatment outcomes and quality of life for individuals with TMD.

Data management Data from the included studies were systematically extracted and tabulated in a predesigned Excel workbook.

Quality assessment / Risk of bias analysis The quality assessment results are presented in Table 2.

Strategy of data synthesis Extracted data were procedurally analyzed and presented according to the predominant themes, including anxiety, depression, and emotional distress. Additionally, quantitative data were analyzed using RevMan version 5.4.1. An intervention review approach utilizing a random effects analysis model with standard mean difference effect measure. Additionally, totals and sub-totals were used with a 95% confidence interval.

Subgroup analysis The data was compiled from a variety of articles:

- Author(s), year of publication, country, study design.
- Total number of patients/datasets.
- Training/validation datasets.

Sensitivity analysis Not applicable.

Language restriction Only articles in English.

Country(ies) involved Saudi Arabia.

Keywords Anxiety, Depression, Psychological factors, Temporomandibular disorders.

Dissemination plans All the data and the article will be share after the publication.

Contributions of each author

Author 1 - Ravinder Saini - Author 1 drafted the manuscript.

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