

Effectiveness of orthodontic management together with myofunctional therapy for open bite correction in growing patients: a systematic review

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ADMINISTRATIVE INFORMATION

Support - Self-financed.

Review Stage at time of this submission - The review has not yet started.

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 10 January 2024 and was last updated on 10 January 2024.

INTRODUCTION

Review question / Objective Will orthodontic management be effective together with myofunctional therapy to correct open bite in growing patients?

Condition being studied Growing patients with open bite.

METHODS

Search strategy Specific terminology already established in each of the data sources to be used will be used. Also, controlled (MeSH) and uncontrolled terms will be used for the search, as well as truncators and Boolean operators (OR, AND, NOT) Databases: PubMed, Scopus, Embase, Cochrane. No restrictions of time will be applied. Only in Spanish and English articles will be included.

Participant or population Healthy patients with an age range between 2 to 18 years with anterior open bite.

Intervention Orthodontic treatment with myofunctional therapy.

Comparator Without orthodontic treatment neither myofunctional therapy.

Study designs to be included Randomized clinical trial and not randomized, case-control studies and cohort studies.

Eligibility criteria Exclusion criteria: Literature reviews, case reports, case series, opinion or comment publications, animal investigations, In vitro studies. No restrictions of time will be applied. Patients with systemic disease present, sleep

apnea or outside the age range already established in the inclusion criteria, studies in adult patients.

Information sources Databases: PubMed, Scopus, Embase, Cochrane.

Main outcome(s) Open bite correction.

Data management The advanced electronic research will identify relevant articles through the combination of boolean operators, MeSH and not controlled terminology. All abstracts will be exported to a software for management of references.

At phase 1, two independent reviewers will evaluate titles and abstracts, by implementing the selection criteria, using Rayyan's online platform. A third reviewer will be considered for discussions in case there is any disagreement between the reviewers regarding the definitive inclusion of an article.

At phase 2, all included articles will be read completely by the same two independent reviewers. Throughout the review of the full text of the articles to be evaluated, if any difference is found between the reviewers regarding the definitive inclusion or exclusion of the article selected in this systematic review, the third assessor will have the last choice.

Then, the data collection's included articles with all the relevant information will be analyzed. The calibration for the selection of articles will be executed and, after the risk of bias analysis, the Kappa correlation test will be applied to distinguish the coincidence of the selection of articles by the reviewers.

Quality assessment / Risk of bias analysis RCT: Rob 2.0 for randomized studies, ROBINS for not randomized studies, Newcastle Ottawa for cohort and case-control studies.

Strategy of data synthesis Meta-analysis won't be performed.

Subgroup analysis None planned. It will depend on the type and quality of the data found.

Sensitivity analysis None planned. It will depend on the type and quality of the data found.

Language restriction Only in English and Spanish articles will be included.

Country(ies) involved Peru.

Keywords myofunctional therapy; open bite; orthodontic treatment; growing patients.

Contributions of each author

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