Author’s response to reviews

Title: Do fixed orthodontic appliance cause halitosis? - A systematic review

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Author’s response to reviews:

Dear Editor Liam Messin,

Regarding the manuscript “Does fixed orthodontic appliance cause halitosis? A Systematic review” (OHEA-D-18-00237).

We are grateful for the suggestions and comments as they will improve the paper and facilitate the communication with our colleagues. The manuscript has now been revised according to nearly all the suggestions for modifications made by the reviewers, see comments below.

Sincerely,
Dr. Salem Abdulraheem and co-authors

Technical errors:

-Provide cover letter: Cover letter is now provided before the abstract

-Rename introduction to background: Changed (in red)

-Provide Abbreviations before Declarations section: Provided in page 15 before the declarations section (in red)
Reviewer 1 comments:

Comment: An interesting systematic review. Future recommendations for RCTs, it is suggested to consider standardized criteria, with gender, age and socioeconomic levels of participants.

Author answer:

As just RCT are included in the present review, we think that it is clear that standardized criteria are considered. In a RCT the randomization procedure eliminated the risk of selection bias such as age, gender and socioeconomic level of the participants as the randomization procedures deals with known and unknown confounding factors. This is noted in the table 2 (Summarized data). No additional changes were made in the manuscript.

Comment: Further, Halimeter has its own limitations. So it is suggested to use organoleptic and gas chromatography methods for the evaluation of Halitosis among orthodontic patients through the duration of orthodontic treatment.

Answer: Agree. The comment provided by the reviewer is important and is discussed in the discussion, page 14, highlighted in red.

“The Halimeter seems to have its limitations, as mentioned above. Therefore well-designed studies on organoleptic method to assess halitosis throughout the orthodontic treatment period, is wanted.”

Reviewer 2 comments:

Comment 1: My overall impression of the study is that the results are not very strong. Due to the fact that only four studies could be included, and due to the fact that those study results were very subjective and not standardized, it is hard to draw any conclusions or generalizations on the relationship between halitosis and fixed orthodontic appliances.
Author answer 1: We totally agree. The results are not strong due to the quality of the articles included. However, we want to emphasize that this is the main reason of conducting a systematic review, to assess the available evidence in relation to specific subject and assess the quality of evidence. Present systematic review shows that there is not enough evidence that fixed orthodontic appliances may cause halitosis and further research in this field is needed.

Comment 2: There are some grammatical issues that need to be addressed prior to any publication.

Author answer 2: The manuscript was sent for additional language check-up to make sure that all grammatical issues are corrected.

Comment 3: Perhaps, the authors could expand upon further suggestions on how to make the power of the study stronger- ie increase the amount of subjects, they could better define halitosis.

Author answer 3: Agree. The text is extended in page 14 last sentences.

Comment 4: They could include more languages in their search (this one only incorporated studies from Turkey), etc.

Author answer 4: This is discussed in the limitation section in page 13 (in red) “A possible limitation might be that we only included studies written in English or Swedish.”

All studies that were found and included in this systematic review were conducted in Turkey, which might reflect a specific interest of the specific topic in Turkey. We added some words (in red). “Another limitation is that all the results of the present systematic review are based on limited numbers of RCTs, performed in the same country (Turkey), and all were rated as high risk of bias”.