Reviewer’s report

Title: Seeking adverse effects in systematic reviews of orthodontic interventions: protocol for a cross-sectional study

Version: 0 Date: 13 Nov 2018

Reviewer: Bernardo Antonio Agostini

Reviewer's report:

The paper addresses an interesting topic, is quite rare identify studies that properly evaluate adverse effects in orthodontics. So first of all, my congratulations to explore such issue. Besides that, some important aspects must be clear to further publication. Firstly, my major concern is about possibility of selection bias due to eligibility criteria stated and the reason to select just the fifth most important journals of orthodontics. There is no clear justification of why the fifth leading journals based on citation reports by Clarivate Analytics and Cochrane database were selected as information source. I'm questioning this, because there are important general dentistry journals or even journals focused only on Systematic Reviews (i.e. this journal in question, Systematic Reviews is not included) and could provide important information. Orthodontics intervention systematic reviews are not only published in this journal, so there is a clear selection bias problem. Second, it is not clear if just interventions reviews that stated in their objectives the assessment of adverse effects or all intervention reviews will be included, it also could generate selection bias and must be clear. Finally, to a better understand, other aspects that need attention and must be clear are listed below as topics:

Abstract
- It is well written.

Introduction
- I suggest to the authors point some possible adverse effects that are slightly or highly common in orthodontics treatments that could appear in the systematic reviews. The statement of possible effects that could be found will strengthen the introduction.
- I suggest removing the last phrase from the first paragraph of the introduction (pag. 4 line 92). A similar statement was written in the fourth one (pag. 5 line 117)

Methods
- Besides the definition of intervention review is in the Glossary of term (Figure 1). More than just the definition of systematic review, the definition of intervention review must be present in the subsection "Study designs" in page 6 or 7.
- I suggest viewing the general comment about the statement "Systematic reviews that focus exclusively on adverse effects of interventions will be excluded" must be reviewed. I suggest removing it, and that kind of reviews must be included due to the possibility of underestimate the prevalence if
those articles be excluded.

Information Source
- I suggest viewing the general comment about the journal selection. It must to be modify and well written.

Study records
- In the Data management subsection, the item about disagreement of eligibility criteria my suggestion is that Persistent disagreements be solved by a third person since the methodologist already be part of the one reviewer. It is clear that will be a discussion first, but after reading the entire paragraph it sounds that RMR decision will be the majority, what is not so appropriate since this reviewer will conduct the first selection and data extraction.
- In the Scoring adverse effects of orthodontic intervention subsection, according to the table 2, that is based in Proteasa et al. (ref. 20) study, pain is not included as adverse effect. Pain could lead to drop-outs in the intervention and it is an adverse effect of an orthodontic treatment. In my opinion, it is mandatory the inclusion of "pain" as additional adverse effect. If this inclusion not be done, will be necessary a strong justification of its absence.

Discussion
- The limitation 1, related to the use of the 5 leading it is correct, but not justify the exclusion of other journals, limiting and creating a clear underestimate of the prevalence. Furthermore, the present study is a protocol, if a clear bias was already identified to develop a high-quality study, bias must be avoided. So I strongly recommended the inclusion of other journals eliminating this underestimation and consequently this limitation.

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Quality of written English
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