Reviewer’s report

Title: Dental caries prevention strategies among children and adolescents with immigrant- or low socioeconomic backgrounds- do they work? A systematic review

Version: 0 Date: 04 Aug 2017

Reviewer: Lisa Emily Simon

Reviewer's report:

Thank you for the opportunity to review your paper. Addressing health disparities from a rigorous framework is of utmost importance and I applaud your commitment to improving the evidence base for vulnerable communities.

From a methodologic perspective, it is not clear to me why immigrant populations and low-income populations were chosen together. Consider adding a paragraph in the introduction that discusses potential differences between these two populations as well as interactions between them (for example, do these disparities still apply to high-income immigrant populations? If not, why include immigrants? Do low-income immigrant populations face higher oral disease rates than low-income native peers?). Please also consider including justification of the exclusion of indigenous populations, who often face some of the most severe health disparities in many developed nations.

It would appear that this manuscript was written some years ago as the most recent citation is from 2015 and much of the literature is much older. I would recommend the authors consider adding some more recent to citations to the introduction section to provide additional background on their choice of population focus, the caries burden in this group.

In the discussion, please consider adding a bit more information about some of the interventions described.

There are some minor grammatical errors in English throughout the manuscript. I would recommend that a native English speaker copy-edit the manuscript prior to publication. (Example abstract line 23 “articles focusing [on] underprivileged group[s]”).

Some specific comments are below.

Abstract:

2.28 Line about excluding fluoride is awkward, consider rephrasing. This is especially confusing given that you later mention slow-release fluoride and APF.
Background:

3.45 Dental caries is a communicable disease with modifiable risk factors; I believe the term "lifestyle disease" is potentially stigmatizing. Please consider rephrasing.

3.47 Please use "low-income" rather than "poor."

3.55-3.60 While I applaud the acknowledgement of the complex social factors that contribute to caries development, the phrasing used here may imply that individuals are at fault for their caries status (for example, the mention of "priorities").

The remainder of the introduction is excellent.

Methods:

Please note in your method how many articles were initially identified by your search criteria.

Please note how many articles were determined to be relevant by only 1 author (% agreement).

6.132-134 These two sentences are redundant.

6.145 Consider adding a citation that would allow a reader to understand the limitations of the USPSTF rubric when used alone.

Discussion:

9.195 Consider providing some background to your reference of Khan et al as your "gold standard" for systematic review.

10.222 "proximal" lesions, not "approximal."
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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