Reviewer’s report

Title: Risk factors and morbidities associated with childhood obesity in sub-Saharan Africa: a systematic scoping review

Version: 0 Date: 12 May 2020

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The evidence on risk factors and morbidities associated with childhood obesity in sub-Saharan Africa (SSA) are described in this systematic scoping review. This review is very comprehensive and follows the published guidelines and framework for scoping reviews by Arksey and O'Malley, Levac et al. and the Joanna Briggs Institute. This review points out the lack of data from many countries in sub-Saharan Africa and highlights how the available review could inform governments on where to focus efforts and research to minimize childhood obesity in SSA. The review is well-written and is an important contribution to the literature.

Major comments:
1. Exposure: The exposure is defined as BMI $> 85$th percentile and is termed obesity in Table 1. Obesity itself is defined as $> 95$th percentile in children. It is more accurate to term the exposure obesity/overweight in Table 1 and make sure that the term is used consistently throughout the text. If studies define the exposure differently such as overweight/obesity ($> 85$th percentile) or obesity ($> 95$th percentile) I think that should be noted in an additional column in the table of characteristics of the included studies. Also, there are 2 Table 1s.

2. Characteristics of the included studies: In this section, the authors report 68 articles that reported evidence on childhood obesity/overweight. They say that 53 of the studies reported evidence on risk factors, 12 reported on associated morbidities, and 3 presented evidence on both risk factors and morbidities (page 6 lines 174-176). On page 7 line 190 they say that there were a total of 55 that reported studies on risk factors. Shouldn't this be 56? If not, please explain.

3. Study findings: For each risk factor, the authors report how many of the studies presented evidence on the risk factor and childhood obesity/overweight. Did they just indicate the number of studies that reported a positive association? Where there studies that studied that risk factor but found no association between that risk factor of interest and childhood obesity/overweight? This should be clarified for each risk factor and comorbidity discussed and "evidence for" defined. Similarly, in the discussion section on page 12 lines 356-358 the authors state "among the risk factors, high SES was the most reported...". Does that mean the most reported with an association? The same for the other risk factors?

4. Study findings: Socioeconomic status (SES) could be defined many ways. Is there a common way that studies defined SES?

5. Secondary analysis: What do the authors mean by "secondary analysis"? This could include data that were collected in a cross-sectional design or a longitudinal design. Please specify.

6. Discussions: The authors have nicely summarized the findings and compared them to published studies in other regions of the world.

7. Implications for research: The authors suggest "intervention trials should be conducted to establish a causal association between childhood obesity and the identified risk factor and
"morbidities". This should be clarified. It would not be possible or be difficult to do an intervention trial on some of these risk factors such as sex, private school, rural urban, etc, to establish a causal association between them and obesity/overweight. However, one could do a physical activity, diet, or educational intervention as mentioned in Implications for practice.

8. In several locations in the text "trials" is misspelled as "trails". Abstract page 2, line 54, etc.

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.

Unable to assess

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.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

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