**Reviewer’s report**

**Title:** A systematic review of instruments for the analysis of national-level physical activity and sedentary behaviour policies

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**Reviewer:** Rima Afifi

**Reviewer's report:**

Manuscript Review

Health Research Policy and Systems

HRPS-D-19-00054: A systematic review of instruments for the analysis of national-level physical activity and sedentary behaviour policies

**Summary:**

The manuscripts provides a systematic review of instruments for the analysis of policy related to physical activity (PA) and sedentary behavior (SB). Providing guidance on the robustness of instruments to analyze comprehensiveness of policies provides important guidance to researchers, decision and policy makers. The paper provides an excellent and comprehensive analysis of various aspects of the instruments for policy analysis of PA and SB. However, the paper falls short of providing some specific (rather than general) guidance to stakeholders. Also, the challenge of this paper is that the analysis is conducted using a framework that has not yet been published, making it difficult to thoroughly understand and evaluate exactly what is being assessed.

**Comments on background**

* The background begins with a summary of the health burden of insufficient physical activity (PA) and sedentary behavior (SB). Three paragraphs are devoted to this. There is no need for such expansion on this fact. It is generally known and the focus on this paper is on policy analysis so more expansion is needed on policies and policy analysis instruments. A few lines (2-3) of focus on PA and SB and their burden is plenty.
Since this journal is a general journal on health policy and systems, and not one that is specific to PA and SD, a broader description of the policies that are relevant to PA and SB might be needed (not expansive, just examples).

Policy assessment/analysis can definitely guide potential modifications needed to any policy. However, the authors also argue that policy modification is needed because implementation is generally poor. I am not sure I follow this part of the argument. Many policies are in fact quite strong and do not need modification but they need to be implemented as developed. This is more about political will often, or politics, than revision/modification of policy. This type of analysis is different from what the authors currently are aiming for in this paper. The issue of implementation of policies perhaps should be moved to the discussion, where the authors can state that analysis of policies is just one step in the process of assessing its potential impact, implementation being critical to the latter.

The aim of this paper is to assess instruments used for policy analysis of PA and SB policies. However, the background does not review the general literature/scholarship on instruments to analyze policies for any health-related issue. Are the authors suggesting that we need a policy analysis instrument for every issue? This would seem unreasonable and overly cumbersome for researchers and policy/decision makers.

- What general instruments for policy analysis are available?
- What do they cover?
- Why are they not useful for PA and SB policy analysis? And if they are not, can they be adapted with the addition of 1-2 questions rather than having specific instruments for policy analysis of PA and SB policies?

The authors end this section with a statement of the aim of the paper followed by the purpose of the paper. This is confusing. The aim is clear. I would recommend removing the section on the purpose. How the analysis of the various instruments can be used by researchers and policy makers can be stated towards the end of the discussion. Here it is confusing.

Comments on methods:

- The authors conducted a systematic review according to published guidelines for such reviews.

- The biggest concern is that the authors used an unpublished (yet) instrument - CAPPA - for their analysis of the PA and SB policies. Although this may be an ideal tool for the analysis they want to conduct, the fact that the reader does not have access to its details makes the whole process a bit opaque and unclear.
Can the authors justify why they used this unpublished tool rather than another? I realize that this justification may be in the paper describing the tool, but in the absence of access to that paper, readers remain confused. It may be best to delay this paper until the other is published?

And if the authors are arguing (based on the query in the background section) that one needs a separate analysis tool for policy related to difference behavior/health outcomes, then how do they use (or why is it then OK to use) the CAPPA for SB?

* In the absence of access to the paper where CAPPA is described, the authors should include a table that defines clearly all the terms and elements and sub elements within it to allow readers to be able to clearly understand the tool.

Related to scope of analysis, do they instruments of policy analysis actually include an assessment of the availability of specific policies (as per WHO recommendations for example)… not clear if the part on scope/availability only assessed whether the instrument generally assessed availability of a general policy or specific policies.

* The authors state that there was duplicate review at all stages of the systemic review process. Can they describe the process that followed for disagreements between reviewers?

* Can the authors provide a general description of which of the eligibility criteria resulted in removal of most articles at the stage of title/abstract review and at the stage of full text review?

* The authors state that one of the criteria they will extract is whether the policy instrument was based on a theoretical framework, but this is not part of CAPPA? Is this correct? If so, why is it not and why did the authors choose to include this?

Comments on results:

* The authors describe the various aspects of the instrument very comprehensively. This is extremely helpful to an understanding of the landscape of policy assessment/analysis instruments.

* Table 1: the first column should include the actual title of the policy analysis instrument then only include the reference number (no need for authors there).

* Figure 1 should be referred to at end of methods section not at end of results section.
Comments on discussion:

* Generally the discussion section is long, a bit repetitive of results, and not very prescriptive.

* Back to the focus on theoretical framework for development of instruments to assess/analyze policy. Do authors mean theoretical frameworks, or conceptual frameworks? And it would be useful to the reader if they provide an example of how such a theoretical framework might be useful in the development of an instrument to analyze policies; and what research question might be driven from that type of instrument rather than one not based on a theoretical framework?

* The definitions of auditing versus assessment/evaluation should go into the methods section.

* Within the various discussion sections, the authors do tackle the pros and cons of a comprehensive instrument. These pros and cons should take up a separate section in the discussion, as this is what will drive the development of new instruments, or the tweaking of current instruments. Considering the various 'users' of such an instrument for policy analysis (decision/policy makers, researchers, etc), what are the pros and cons of a comprehensive instrument versus one that is less comprehensive?

* And after your review of all these instruments, and based on the above, which would you recommend and why? I realize that you have include a section on whether standardization is a good idea or not, but this question is different. Currently, if I am a decision maker or a researchers, I am not left with much direction at the end of this systematic review. If I want to conduct an assessment now, how should I proceed? Based on your expertise in PA/SD AND your systematic review of the available instruments, how can you guide me?

* You suggest the possible need to develop complementary instruments, but do not give guidance on what aspects are most important to be collecting.

* In general, the discussion is more descriptive than analytical and would benefit from taking a step back and providing birds eye view guidance to those not wanting to do the thorough systematic review you did, but wanting to benefit in real time and with next steps from the expertise you gained from conducting the review.
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