Reviewer's report

Title: Quality analysis of smart phone sleep apps in China: Can apps be used to conveniently screen for obstructive sleep apnea at home?

Version: 1 Date: 12 Aug 2019

Reviewer: Adam Dunn

Reviewer's report:

The study is about evaluating software applications used in China to manage or track sleep. The authors have addressed each of the comments and suggestions from the reviewers but there are some issues remaining and new ones that have been introduced.

1. Throughout: Remove all contractions from the manuscript.

2. Throughout: Check carefully for errors throughout, including line 375 "it's" - most of the new changes to the manuscript have introduced new errors in grammar and typos. Always thoroughly check your revisions to meet the expected standard, it is definitely the worst time to introduce new errors into the manuscript after the work has already been deemed "potentially acceptable".

3. The authors state that "One assessor (XZF) conducted all the app quality evaluations, and the results were verified by a second assessor (LYY)." This does not mean that the results were independently examined and measures of inter-rater reliability are thus inappropriate. It means that the second assessor was not blinded to the initial evaluation and simply decided when they disagreed with the original. Given that these scales are the central contribution of the research, there is a critical flaw in the evaluation of the scale and the authors cannot claim that the method they used to assess the apps is reliable. This would need to be *very* clearly specified in the limitations and carefully described in the discussion. I would not accept a change in the writing to suggest that the evaluation was independent after this has been stated in two versions of the manuscript.

4. Lines 290-295: Even if the issue above were resolved, this would need to be rewritten. Spearman's rho is an unusual choice for measuring inter-rater reliability, and I would suggest instead using something that will be more familiar to readers such as Cohen's kappa. No measure of inter-rater reliability is especially useful but go with the standard. When reporting kappa avoid
calling it "coefficient of accountability" and instead say "Cohen's kappa for the accountability criterion was 0.XX (p=0.00X)."

5. "Adrian A. Ong ect" - when mentioning an author use the family name not the given name, include the citation directly after the name, and remember that "ect" should be "et al." not "etc." and definitely not "ect". For example, in this case it should be "Ong et al.[10] evaluated the functionality of 51 selected sleep apps in 2016 and found that ..."

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.

Unable to assess

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 am able to assess the statistics

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

Not suitable for publication unless extensively edited

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.