Reviewer’s report

Title: Addressing preconception behaviour change through mobile phone apps: a protocol for a systematic review and meta-analysis

Version: 0 Date: 08 Jan 2019

Reviewer: Horst Christian Vollmar

Reviewer's report:

The submitted manuscript "Addressing preconception behavior change through smartphone apps: a systematic review protocol" is a protocol about a systematic review in the field of electronic health, which aims to elucidate in how far health behavior can be influenced especially among woman in the preconception period by smartphone apps. Overall, the manuscript is well written and addresses an important, up-to-date topic. However, there are some issues, especially with regard to the derivation of the research question and the inclusion criteria, which is somehow misleading, that should be revised by the authors. Moreover, at some points literature is missing.

Background
1. In the first paragraph of the Background section no literature is given. Please add the respective literature (page 4, lines 4-16).
2. Beforehand social and environmental risks are differentiated (page 4, lines 29-31). From line 8, page 5 onwards these risks are combined. Please clarify at this point which examples belong to which category.
3. It is not clear why unintended pregnancies are in the focus here (page 5, lines 15-27) - is it because of the high number of unexpected pregnancies in the US? Please clarify this point. Moreover, why are only data from the US mentioned here?
4. Page 6, lines 1-12: is this information also given in reference 2? Otherwise, please give the respective literature here.
5. I believe it would be more concise to only give the aim of the systematic review in the respective section (i.e. page 9, lines 11-19) or at the end of the Background section but not in the middle of the background (page 6, lines 29-41). Please consider restructuring this section.
7. For me it is not clear whether the authors plan to focus on woman of reproductive age or on woman who plan a pregnancy, which is an important difference in this context. If the authors want to focus on the reproductive age, since these woman are the ones who likely plan a pregnancy, this line of argumentation should be clear and mentioned at some point.
8. At some point in the background it should be mentioned that this manuscript only presents the protocol of the systematic review to be conducted (up to the end of the Methods section, when recognizing that there is no result section, this is only clear from the title of the manuscript).
Methods
9. In the Participants part of the Methods section, it again appears as if all woman of reproductive age are included no matter whether they ever plan to have a baby. If this is the case, it should be clarified before.
10. Page 12, lines 6, 11-13: please include the literature for these scales.
11. With regard to the management of missing data, it is not clear what is meant with the first sentence of this paragraph: should all participants who did not receive any intervention (i.e. control groups) be included in all analyses for each outcome (if data are available)? Please be more precise here or think about rewording this sentence.

Discussion
12. If the systematic review includes all woman of reproductive age (without knowing whether a pregnancy is planned), this limitation should already be mentioned in the Discussion section of the manuscript.

Addendum 2: Please think about the search terms "personal digital assistant (PDA)" and "Palm". Maybe you could include these terms to identify some older evidence...

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field that should be highlighted to relevant networks

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

Acceptable

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