Reviewer’s report

Title: Implementing cardiovascular disease prevention guidelines to translate evidence-based medicine and shared decision making into general practice: Theory-based intervention development, qualitative piloting and quantitative feasibility

Version: 0 Date: 10 Dec 2018

Reviewer: Laura Desveaux

Reviewer's report:

This manuscript reports on the design, piloting, and feasibility assessment of an intervention to address barriers to CVD guideline adherence. The authors should be commended on the considerable amount of work reflected in this manuscript, however there are several major issues that require attention which I have outlined below. With thoughtful revisions, this article has the potential to appeal to a broad audience.

Major Revisions

The authors present the intervention as based in COM-B theory, however the theory is mentioned at the beginning of the methods and not again until the discussion. Please clearly link components of the intervention to the theoretical construct they operationalize, and the corresponding barrier they are targeting.

I also found the presentation of both the methods and the results confusing at times. I would suggest organization via consistent subheadings across these two sections would be useful (perhaps by stage or by intervention content).

Specific comments according to sections are included below:

Background

The first paragraph of the background is repeated throughout subsequent paragraphs and can be removed altogether. The second paragraph on CVD prevention guidelines provides unnecessary detail and should be shortened to 2-3 sentences to help focus the background quickly. For example: Evidence and guidelines are well-established (references), but adherence in practice remains suboptimal (references). The current approach focus on … therefore there is a need to …

The detail on previous work done to assess barriers (currently in the methods) belongs in the introduction to help the reader understand the rationale for the study and how this intervention targets known barriers. Be sure to link explicitly to the underlying theory here.

Methods (Page 7, starting on line 47) - Much more detail is required here. The BCW framework should be introduced at the beginning of the intervention section. Please provide explicit examples of the deficits in psychological capability, physical opportunity, and reflexive motivation targeted by the intervention content.

Methods (Page 7, line 59) - you mention that screenshots illustrating features are provided in Appendix 1. Please revise this Appendix to explicitly link features to BCTs and highlight the exact content operationalizing the BCT.
Methods (Page 8, section on qualitative piloting) - Were the recording for the ASK-GP sessions transcribed? How was all your qualitative data analyzed? More detail is needed on the approach. Additionally, it is misleading to provide the n for the number of conference delegates at the session (113) when you only collected data from n=16 GPs? Please clarify the type of data collected from the presentation and how many GPs it represents.

Methods (Page 9, line 9) - the authors mention the use of the Theory of Planned Behaviour in their baseline survey. Please justify why TPB was used over other theories.

Results (Page 9, section on qualitative piloting) - please highlight the main points of feedback and subsequent changes to the intervention in the text

Results (Page 11, paragraph 2) - Several non-significant results are presented here. If results are non-significant, they do not need to be highlighted in the text. Alternatively, if they are CLINICALLY meaningful (i.e., they changed the behaviour of several GPs) then please re-frame appropriately.

Discussion (Page 12, first paragraph) - The authors should discuss the utility of applying theory to inform intervention development. Was it helpful? Consider how the results of the study compare to similar intervention that have/have not used theory.

Discussion (Page 12, Line 48) - A&F was mentioned in the methods and not again until the discussion. Given that it is one of two intervention strategies employed, please make results relating to it more explicit (or provide an explanation as to why there are no results). I'm left wondering whether there were iterative improvements to the A&F and how participants experienced it. Organizing your results according to the intervention strategies would be one way to streamline things.

Minor Revisions

Abstract

Background: The objective would be more clearly stated as "This paper outlines the development, qualitative piloting, and quantitative feasibility assessment of..."

Methods: Please separate out the reference to the GP conference session and stall

Results: What does the average star rating represent (e.g., overall satisfaction? Utility?). If is it just satisfaction, I would remove this from the abstract as it is not compelling or central to your results. Instead, please highlight the changes that were made in response to usability testing.

Conclusion: No need to re-state what the project did in the abstract conclusion. Instead, focus on the implications of the results and the next steps (i.e., outstanding barriers to be addressed).

Methods

Page 8 - references to the number of participants in each phase belongs in the results section

Please provide more detail about the healthcare setting in Australia for international readers. How is primary care organized and delivered?

Page 8, Line 33 - Were prompts used during the think-aloud interviews? Please provide more detail about this process.

Page 8 - Include one general statement about ethics that lists all relevant institutions (no need to separate by phase as it is confusing to the reader and does not add value).

Page 9, first sentence - What is TKW?

Page 9, Line 21 - "...website usage assessed..." - please clarify if this was self-reported use or objective usage data.

Results

Page 10, Line 3 - please separate out the reference to the conference presentation and the stall.

Page 10, Line 12 - how many conference attendees provided in-depth user feedback?

Page 10, Line 54 - the most common sources for what? Guideline exposure?

Page 11, Line 47 - Please remove the results on the number of GPs who did not suggest any changes as
this is likely an artifact of not wanting to respond to the survey. Instead, lead with the number of GPs who had constructive feedback. The overarching goal of the paper is to illustrate how you responded to feedback in a systematic way to improve the intervention.

Discussion
Page 13, beginning on Line 21 - The three suggestions from GPs need to be mentioned in the results text (in addition to the table) to facilitate the discussion. During what stage did these suggestions emerged (it appears like Version 3?) and why were they not addressed as part of this study?

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