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: 1 Date: 21 Mar 2019

Reviewer: Krystina Lewis

Reviewer's report:

Thank you to the authors for their careful consideration and integration of proposed revisions. As a result, the manuscript is improved with the addition of an informative summary of the team's prior work leading up to this project, the presentation of the sequential approach to intervention development, piloting and feasibility testing, and greater details about the theoretical framework used. Yet, from my perspective, a few issues remain, mostly around clarity of process and ideas. I offer some additional areas where I believe the manuscript could be strengthened.

Abstract:

Background:
- Could the authors state directly in the background what the intervention is? As it currently reads, we only find out by Stage 4 in the methods section that the intervention is a website.
- Similarly, could the authors state that the "new content" is a decision aid?

Methods:
- Stage 1 involved analysis of behavioral barriers and identification of evidence-based solutions…

Conclusion:
- Add: "address behavioral barriers to guideline use amongst GPs"

Manuscript

1. The chronology of the overall study process remains unclear in some areas. For example, it is not immediately clear at which point the risk calculator, audit and feedback was developed/adopted, and the decision aid added in relation to barrier identification. A figure showing a flowchart of overall study processes would be helpful, including previously completed steps that have informed this study such as barrier identification and the future planned effectiveness study. Perhaps the figure could show the overall intervention development and testing processes of components (if any) with citations for completed steps and a box around the portion of the study described here with the flow of study processes for the work represented in this manuscript presented in finer detail.

Methods
2. Stage 1: The three determinants could be further explained as such: opportunity (physical and social environment), capability (physical and psychological ability), and motivation (automatic and reflective mechanisms) - mostly because physical appears twice. The delineation between physical environment and physical ability would be helpful.

3. Stage 1: The way in which the BCW steps are listed (p.7), do not clearly map onto the steps outlined in Table 2. It would be clearer if consistent terminology was used.

4. Stage 2-4: Details about the qualitative data analysis are still lacking. How was the data analyzed? The authors mentioned use of thematic analysis from interview notes and recordings but without neither elaboration, nor citations to support the approach used.

5. Stage 4: I think the following passage is a repetition of the same information provided a sentence above it "were audio-recorded to supplement field notes on intervention features to improve."

6. Stage 5: The name of the outcomes (e.g. acceptability, demand) do not fully align with what is reported. Acceptability measures usually refer to ratings regarding the comprehensibility of intervention components, its length, amount of information, and overall suitability for its intended purpose; and demand usually refers to person's willingness to purchase/use a particular good during a given period of time. In my view, the use of the terms currently used in parentheses', namely "intended use", "actual use" and "appropriate guideline-based recommendation for risk category" are a better representation of the outcomes that are actually reported.

Results

7. Stage 1: The BCW process revealed that psychological capability, physical opportunity and reflective motivation were the most important behavioral barriers (Table 2). In the summary of the Healthy Heart Study initiatives completed to date, these three barriers were identified in prior GP interviews. It is my understanding that these barriers are the starting point for this piloting and feasibility study. Although the identification of these barriers from prior GP studies is noted in the background, this is not reiterated in the results (Stage 1) which made me wonder if this step had been repeated in the context of this study. Could the authors remind the reader of their Stage 1 starting point and how they are building upon these previously identified barriers. A figure as proposed above could help, and adding citations to the studies in Table 2 for column "Behavioral components (barriers?) served by intervention functions."

8. Stage 1 results: By completing the BCW process the authors "identified the need to develop a new tool." In previous parts of the manuscript the authors state that the decision aid component was the only new component. The way in which the three key features of the new tool are currently presented, it doesn't distinguish the previously available features from the new one. Additional detail about how existing components were available and used by GPs and how this new tool was built using these existing components would be helpful.

9. Table 2: Based on the narrative text, it appears social comparison is missing from Table 2, column 3.

10. Stage 5: Open feedback - Remove required - if it was required I would have expected to see 100% response rate.
Discussion

11. The sentence "The pilot findings suggest several directions for implementation that have already been trialled in the Australian primary care context, which may be effective if combined with the existing intervention" (p.17). It is not clear that the suggestions provided from GPs and patients refer to these "directions" or if the suggestions need to be addressed before the directions can be followed.

12. Could Figure 3 be organized using the same stage numbers used throughout the manuscript?

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