Reviewer's report

Title: Health promotion via SMS improves hypertension knowledge for Deaf South Africans. A mixed method study

Version: 1 Date: 26 Mar 2017

Reviewer: Jane Willcox

Reviewer's report:

Thank you for the opportunity to review the new iteration of this paper. The work is much improved but still requires some tweaking for publication. This paper explores the use of short message service (SMS) to improve the hypertension knowledge and behaviours for Deaf South Africans. This paper comes at a time where technology is being explored to benefit health communication and outcomes.

I make the following comments for consideration in the review of this paper.

1. Overall scope

I commend the authors on splitting the two previous health topics. The paper is much more readable and easier to follow by focusing on one health issue.

2. Abstract

a. The last sentence and the second aim requires review. The second aim is worded differently through the paper.

b. In the results you need to outline the number and demographics of participants as well as some data around the first part of your study

c. The data collection and analysis dates could be deleted from the abstract.

3. Introduction

a. Line 112. Please review the sentence …Having a penetration above 100%.
b. Line 122. Rather than saying that you could not find any studies maybe say that studies on xxx are lacking.

c. Line 134-139. Can you please reword the sentences on the prior study? It is clunky as it stands.

4. Methodology

a. Line 150. Please define SASL

b. Line 154. Pre-test / post-test is fine. You do not need the before-after.

c. Line 167. Could you please add a justification of why you were aiming for 50 participants?

d. Line 185. Apologies but I don't understand what you mean by "received the majority of SMSs". Did everyone receive them?

e. Line 197. Can you please clarify why you took off a mark for an incorrect answer? This would indicate that the person did not know as well as the "don't know" answer. This would change your overall mark in, potentially, a significant way pre and post. For example if someone put a wrong answer in the pre-test and a "don't know" in post-test, it would elevate their mark by 2 when they still don't know the answer. Forgive me if I have misunderstood this.

f. Line 204. Can you please clarify who did the thematic analysis? Was it one or two people?

5. Results

a. Line 219 In my mind the only demographic data that should be reported should be the 41 participants who completed the study. You could present demographics for both if you thought it was significant.
b. As you have noted there was no data available on how many people were and were not hypertensive in the first study. I think you need to make mention of this somewhere and also include it in your limitations.

c. As previously mentioned in my last review, I don't think the graph works for the knowledge scores. Without the data, we are unable to interpret the data or the statistics. This needs to be included in the paper.

d. Please recheck the additional file numbers for the files and in the text.

e. It is good practice to include a short written summary of the demographics.

f. Please review the participant diagram. It doesn't make sense that people were excluded if they did not complete a baseline study if that was the inclusion criteria.

g. Line 253. You include information on information sources that was not part of the original aims.

h. It might just be me but the discussion, with the quotes as evidence, seems biased towards a couple of issues. Can you please include some negative quotes e.g. around the difficulty of medical technology?

i. Were the demographics of those that took part in the focus groups different from those that did not?

j. It is good qualitative research practice to some sort of nomenclature after each quote (eg participant 1). If this data was not collected by a second person in the focus group then this needs to be discussed.

k. Line 308 Please define UCT

8. Discussion

a. This discussion is very light, tending to go over the results. While you bring up some really interesting points, you need more depth comparing them to other research in
mHealth and/or Deaf communication research. The lack of references in the discussion section show that you have not involved many comparisons or learnings.

b. The strengths and weaknesses section requires more depth.

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.

No

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

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