Reviewer's report

Title: The Person-Based Approach to Optimising the Acceptability and Feasibility of Interventions

Version: 3 Date: 28 July 2015

Reviewer: Katrina Turner

Reviewer's report:

Thank you for asking me to review this article, which illustrates how the person-based approach can be used to assess and optimise the acceptability and feasibility of an intervention.

I very much enjoyed reading this article. It is clearly written and will make a contribution to the existing literature around intervention development. I have some very minor comments, which I have listed below, and would encourage the authors to respond to these before the article is accepted for publication. These comments fall under the category of Discretionary Revisions.

Abstract
Write PPI in full.

Results: the tense changes between sentences, e.g. ‘we present’, ‘illustration provided’, ‘illustration revealed’. I would try and keep the tense the same within this paragraph, e.g. we present, illustration provides.

Conclusion: wondering if there is a word missing between ‘development’ and ‘and participant input’, e.g. allows.

Keywords: American spelling of behaviour.

Results
The first paragraph on page 4, which starts with ‘During the intervention planning phase etc’, talks about context-specific behavioural (again American spelling is used) needs and behaviour change elements. Such terms, alongside the fact that the three illustrations discussed focus on chronic conditions where management includes making behavioural changes, suggests there is a particular focus here on the development of behaviour-change interventions. Is this the case?

In the paragraph starting ‘In this paper’, page 4, it would appropriate to add a sentence to explain why these particular three illustrations were selected for this paper. Based on Table 1, it appears they may have been selected because they illustrate different stages of intervention development and evaluation. If this is the case, this should be stated in the text.

Same paragraph - the authors should state they are referring to type 2 diabetes, rather than simply stating diabetes.

Tense in the Results section changes between paragraphs, e.g. ‘We then used’,
‘The next stage is’, and between sentences in the same paragraph. The authors might want to change the text so the tense used is consistent both within and between paragraphs. In some situations, the past tense would sound more appropriate, e.g. ‘We elicit and observe reactions’, ‘This section illustrates how we highlight four points’ (page 6).

Page 5. Guiding Principles, rather than ‘guiding principles’ (which is how this term is stated in the abstract and earlier text). Not sure why the format of this term has changed to start with capital letters.

When quoting participants in the text, sometimes there is a full stop after the quote tag, other times there is not, e.g. page 7 (participant 16) and (participant 6)

I wonder if the sentence ‘Overall, the evidence etc’, page 8, could be expanded so the authors explain in what ways they think qualitative research is an essential tool in improving the acceptability of an intervention. I know the preceding text has demonstrated this, but I feel it would benefit the reader to explain whether they think is the open, flexible nature of qualitative methods (allowing participants to raise issues that are salient to them and perhaps not previously considered by the researchers) and/or the fact that qualitative methods encourage a iterative approach to intervention development. Illustration 2 suggests both, so it might be worth reinforcing this.

As the authors have talked about think aloud interviews within Illustration 2, on page 9 they might want to explain (rather than simply reference), what is meant by observational think-aloud interviews.

On page 9, the authors explain that a decision was made to remove ‘climbing stairs’ from the physical activity planner. This was clearly the right decision but often in intervention development, participants’ accounts suggest they may struggle with specific aspects of an intervention. The research team then have the challenge of deciding whether or not it should be dropped (which could lead to insights/measurements being lost), altered or replaced. The authors might want to comment within the Discussion section that such ‘tensions’ can exist and how researchers should address them.

Conclusions:

PPI should be written in full, if it has not already been so.

Overall, I think this is a nice paper. As my comments above illustrate, I think very few revisions are needed before it can be accepted for publication.

Specific questions to be considered when reviewing the article
1. Is the question posed by the authors new and well defined? Yes
2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? Yes
3. Are the data sound and well controlled? Yes
4. Do the figures appear to be genuine, i.e. without evidence of manipulation? The tables and figures are very clear
5. Does the manuscript adhere to the relevant standards for reporting and data
Are the discussion and conclusions well balanced and adequately supported by the data? Yes, although I think there could be a bit more critiquing of the person-based approach within the conclusions.

7. Do the title and abstract accurately convey what has been found? Yes

8. Is the writing acceptable? The article is very well written.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests