Reviewer's report

Title: Assessing the implementability of telehealth interventions for self-management support: a realist review

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Reviewer: Leanne Morrison

Reviewer's report:

An interesting review that addresses an important issue. I am in agreement that more work needs to be done to identify factors influencing the successful implementation of telehealth self-management interventions and it’s great to see a review approach that incorporates both quantitative and qualitative evidence. However, I do have some reservations about the clarity of the paper and the novelty of the findings, which are outlined in my comments below.

Major Compulsory revisions

1. Method: I appreciate that you have added additional details to the method of Stage 1 and referred the reader to additional sources of information. However, I still do not feel that the review process is described in sufficient detail in order to a) be reproducible, and b) provide sufficient context for understanding the results and associated implications. For example, how did you select the review papers for Stage 1? Why were some focused on LTCs in general, whereas others were focused on interventions specifically for depression? What implications would your selection have had on the breadth and nature of the subsequent theory that was generated? Could you say something about the kinds of papers/interventions that were included within the reviews at Stage 1? How were the three theoretical explanations arrived at in stage 1 (e.g. identification of common functionality/principles shared by successful interventions? Thematic analysis of qualitative data from qualitative review? Reports of participant feedback / process analyses?).

2. There appears to be minimal discussion of or comment on the differences between studies reviewed at Stage 2, and the extent to which the proposed theoretical explanations may play a role in different contexts. You include a range of different studies focused on a range of different technologies – for example, Dennison et al. was a focus group study that explored healthy participants’ views on the potential functionality of Smartphone apps – these were not individuals with LTCs discussing their experiences of engaging with an existing technology/intervention. To what extent can findings from this study really be used to test theoretical explanations about successful implementation of telehealth interventions for long term conditions specifically?

3. The review would benefit from definition of terms. Specifically, how have you defined ‘telehealth’ or ‘discrete telehealth’ – from the included papers it seems
that you have included a wide range of e- and m-health interventions. Throughout the paper, you suggest that particular factors contribute to ‘intervention success’. What is your definition of success? Is ‘fit’ really synonymous with ‘ease of use’ (as implied by para 1, section 2.2)?

4. This review and approach had the potential to uncover some novel and useful guidance to inform design and implementation of future telehealth interventions, however, I’m not sure the findings presented are truly novel, and make the best of the data. For example, the need for telehealth interventions to offer something relevant and useful in an easy to use format that can be integrated in everyday routine is not a new finding. What I felt was potentially more interesting was the proposed idea that the needs of individuals managing LTCs can change over time (for a variety of reasons) and thus the design of telehealth interventions needs to be temporal to enable flexible implementation that can adapt to changing needs and circumstances as appropriate (rather than a relatively static programme). Ideally, what’s needed is some attention in the discussion about what we already know about successful design or implementation of telehealth interventions (from existing theory and evidence), and what specifically your review adds to this existing knowledge base.

Minor essential revisions

1. In some places, you tended to infer too much from a qualitative synthesis. For example “Some newer social media interventions offered more opportunities for social interaction and for richer contextual awareness … which increased people’s support networks and contributed to successful interventions” (section 2.1.3, para 2). This implies a definitive causal pathway, can you really determine this from qualitative evidence?

2. It would have been useful to comment on whether any new ideas were generated from the qualitative synthesis (Stage 2) that couldn’t be accounted for by the theory you had generated (from Stage 1). In other words, what was the outcome of Stage 2’s test of your theory?

Discretionary revisions

1. Discussion (final paragraph), you state: “For some conditions, notably mental health, visibility may have negative connotations as patients may wish to remain anonymous when using the system”. I was confused by this statement, as I had interpreted visibility to refer to techniques that encouraged individuals to mentally visualise their condition, health status, progress, etc, not as a tool that enabled them to become physically visible to others (i.e. peers, health professionals etc.). Perhaps I have misunderstood, but it may be worth clarifying this statement.

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.