Reviewers report

Title: Combining Wireless technology and Behavioral Economics to Engage Patients with cardiometabolic disease (WiBEEP): A Pilot Study

Version: 0 Date: 14 Nov 2018

Reviewer: Dina Griauzde

Reviewers report:

Background:

- Line 55: change 'patient' to 'patients'

- Lines 57-59: might consider alternate phrasing. One option: Effective management of chronic conditions requires patients to initiate and sustain behavioral change and/or medication adherence over time. Accordingly, there is a growing interest in developing interventions to support patients outside of traditional healthcare settings, as brief and infrequent clinic visits are insufficient to optimize outcomes for individuals with chronic conditions.

- Lines 60-65: It is not entirely clear to me why mHealth + behavioral economics. Is it because many people do not adhere to mHealth approaches over time and behavioral economic strategies are one strategy to increase adherence? If so, may consider rephrasing to directly make this point. Something like, 'Mobile health technologies are one promising and scalable approach to support patients with chronic diseases. Adherence to such technologies may be enhanced by applying principles from behavioral economics, [define]. Two behavioral economic approaches of particular relevance to mHealth interventions include automatic hovering and nudging. Automatic hovering refers to strategies that... (e.g. ***) Nudging refers to strategies that... (e.g. ***)'

Lines 68: The authors state that concurrent use of these approaches has not been studies in T2DM or HTN. Have they been studied in other chronic conditions? If so, please explain briefly.

again might consider alternate phrasing to increase clarity: One option:

Methods:

- Lines 75-79: Recommend making this 2 sentences and clearly stating study aims.

- Lines 79-80: Use active voice - 'participants attended on in-person visit (baseline) followed by 2 virtual visits (3 weeks, 7 weeks). Also, what is meant by 'virtual'?
- How were patients recruited? Approached by study team? Referred by provider? Flyers on clinic wall?

- Inclusion / exclusion criteria would be easier to read if numbered. Inclusion criteria were (1) T2DM...; (2) HTN... etc.

- Intervention: could you provide more detail regarding the process of creating the bank of messages? Were messaged tested in any way before use in the intervention?

- Consider subheadings to clearly identify the components of the intervention that relate to "hovering" vs. "nudging"

Results:

Table 2:

- Clinical characteristics - SBP and DBP should be reported as mean with SD

- Include baseline HbA1c as this is a study outcome

Discussion:

- Extremely brief discussion. Feels incomplete.

- Consider revising as follows:
  Paragraph 1: summary of interventions' key findings -- given extremely small sample size, would focus on acceptability / feasibility

  P2: place in context of other work -- what's similar / different?

  P3: limitations

  P4: conclusion
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