Author's response to reviews

Title: Effectiveness of a Facebook-delivered physical activity intervention for post-partum women: a randomized controlled trial protocol.

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Author's response to reviews: see over
Dear Executive Editor,

Thank you for forwarding the comments from the peer review of our article titled:

**Effectiveness of a Facebook-delivered physical activity intervention for post-partum women: a randomized controlled trial protocol** (Study Protocol MS: 1119094111896590)

Please see our response in regards to the reviewer’s comments in the table below.

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<th>Reviewer’s comments</th>
<th>Authors response</th>
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<td>I am concerned that the feasibility phase should be conducted first, before carrying out the full study. That would provide some insight into whether it is reasonable to expect the level of recruitment, participation, compliance with the intervention and follow up.</td>
<td>The reviewer raises a good point. It was perhaps not clear that a considerable amount of formative work addressing many of these issues was undertaken whilst devising this study. Our team completed a qualitative study with post-partum women prior to developing the Mums Step it Up Facebook app. The majority of women interviewed during this study reported a desire to be more physically active. The Mums Step it Up Program was described to half of the participants, to gauge their level of interest and their opinion regarding suitability of the program for post-partum women. The response was very positive with most women indicating that the program would be appealing. The study also revealed that postpartum women are very heavy Facebook users and tend to have strong online connections with other postpartum women, suggesting that enlisting 3-7 Facebook friends to join their team should be feasible. Literature would suggest that a 10,000 step count target is suitable for postpartum women [1]. Furthermore, 50 days was selected since it is long enough to achieve health benefits, and form new lifestyle habits, whilst being short enough that it is not overly arduous. Being an online intervention, a considerable amount of time and resources have already been invested in developing the app. Thus we want to evaluate it</td>
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<td>The main issue of concern is feasibility. Feasibility is listed third as an aim of the study after effectiveness of the intervention and exploration of the possible role of the Theory of Planned Behaviour. I think feasibility should be addressed first before the study is actually carried out. Can you get mothers, within the first 12 months postpartum, to take on the team leader role, enlist 3-7 Facebook buddies, and accumulate 10,000 steps per day? Will they log into Facebook? Will they continue the intervention for 50 days? Will retention rate in the intervention be acceptable?</td>
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<td>I would recommend the study be phased, with the feasibility established first, then the study as designed will adequately test the hypothesis, and allow the exploration of the Theory of Planned Behaviour (TPB).</td>
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thoroughly using a full trial. This approach is common with online interventions, and we acknowledge that this may differ for other styles of intervention where it is possible to run a small scale version of the study first and only if the results are promising proceed to a full trial. Feasibility will still be scrutinised as part of the trial, along with effectiveness. If the Mums Step it Up app is found to be effective, issues of feasibility will closely inform adaptations needed in order for it to be disseminated on a mass scale (made available to the general public) and adapted for other populations (e.g. teenage girls).

Usability testing is commonly carried out in software development [2] to assess ease of use and participant satisfaction prior to its use with a larger population. We are planning to commence usability testing of the Mums Step it Up app in the next month. This will provide us with information regarding participants’ ability to navigate their way around the app, the appropriateness of the language and to gain feedback about its features.

During usability testing the app will be used as intended for the randomized controlled trial, however, the pedometer challenge will be for 28 days instead of 50. Up to 48 women with children under the age of 5 will be recruited. This population was chosen for usability testing as we didn’t want to exhaust the post-partum population for the randomized controlled trial. We believe that this population will have many similarities to post-partum women (with a baby under 12 months). The app will be modified prior to the randomized controlled trial based on usability testing results which will include participant feedback (Feedback Questionnaire), researcher’s observations of women using the app and logging data.

We hope that the above information helps to clarify the extensive formative process undertaken to develop the app and our thought processes in regards to the methodology for the randomised controlled trial. At this stage we have not made any changes to the article itself but have instead addressed your queries in this letter.
Please do not hesitate to contact us should you have any further questions. We look forward to hearing from you in the near future.

Sincerely,

Jocelyn Kernot

References: