Reviewer’s report

Title: Promoting physical activity among community groups of older women in socio-economically disadvantaged areas: randomised feasibility study

Version: 0 Date: 23 Nov 2018

Reviewer: Claire Pentecost

Reviewer’s report:

The paper read well and focusses on an area of important need.

One repeated issues throughout is the lack of clarity of what your feasibility questions are - these should be stated very clearly. A feasibility study should 1. have clearly stated objectives that directly address your uncertainties, 2. Data collection should match the described uncertainties 3. There should be clear criteria for progression to the planned substantive study (NIHR). I do not think this paper does this, but with some work could. Read more about feasibility studies and pilot studies Consort 2010 statement :extension to randomised pilot and feasibility trials BMJ 2016. Also Thabane et al 2010 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2824145/

One flaw key flaw in the paper is that you have randomised but have not stated why, and in your findings you have not mentioned findings from the control group at all. So what was the purpose of randomisation? What have you learnt from randomising? This should be linked to your feasibility questions.

The text and table 3 (demographics of the sample) talks about people in 'immediate intervention', 'delayed intervention', but you have not reported demographics of the control. This is very confusing.

Abstract

Clear and well written. Conclusions are in line with the findings. You have not stated it was a feasibility study, and you have used the term primary outcome. This is not usual for a feasibility study (and if this was a trial only one 'outcome' should be listed under 'primary outcome' not two. I would suggest you change the phrase to 'main uncertainties' or similar.

Background

Some opening statements were a bit vague 'large social and economic consequences' -like what? What specific issues does the target population face regarding their health? Sentence starting 'Programmes that are context specific .. line 22 p, . 'can overcome' which of your listed barriers? I doubt all of them.
Your background sets up the potential usefulness of interventions within pre-existing social groups well. Line 5 p 6 you state you developed a feasibility study - should this read 'intervention'? You have not specified what your feasibility questions are clearly enough line 11-14 p 6.

I would like to see a clear link --with-the explicit feasibility questions in your background to the reported findings.

Methods

Line 2 p 7 - the sentence including 'one older…..'all four' is confusing, needs clarity.

Line 6 located in the 'top' 25%?

Line 17-18 p 7 'determine the feasibility' but you have not stated what the 'feasibility' would look like - consider changing to ..'information to answer the feasibility questions.'

Outcomes - consider changing the heading. Outcomes are usually associated with outcome measures rather than recruitment and adherence or acceptability, and so could be misinterpreted.

You have not stated why you want to collect accelerometer data or HADS data. This should be clear in your aims/questions.

Line 20 p7 I am not sure talking about primary outcomes in this feasibility study is helpful. Perhaps reword to indicate your most important areas of uncertainty.

Intervention development

Is there any existing support for the use of this theory in physical Activity promotion interventions? Why did you choose this theory over others?

P9 I would like to see more about the SPT such as definition of the three elements and perhaps examples of application from other interventions? And to point to Table 1 in the methods, also to say something about how you decided to use those particular components from Mitchies taxonomy. Then the diagram would also be clearer. For example I struggled to understand what Materials referred to before I looked carefully at Table 1. In Table 1 - There is no label for 'competencies.'

Conclusions should state if you have enough information or not to move onto deliver the intervention in a trial, or if you would need to run a pilot to assess effect sizes.

Table 2. 'Elaborate on responses' were these participants responses if so - this should not be here but in the findings section. Consider taking out the examples?
Is table 2 a reflection of the intended intervention or what was actually delivered? Perhaps comment in the discussion strengths and weaknesses. Eg how do you know it was delivered as intended?

Was there any justification for including social support in the 3rd session? Social support seems to be a key component of the intervention/theory/setting so it is surprising it is introduced later on.

Randomisation and blinding

Please justify why the study was randomised. Please also clearly state the numbers in each group with breakdown of those who had both intervention and control, those who only had the intervention.

Qualitative method

Please state which qualitative method you used and more explanation of the processes (or reference it). I could not replicate what you did and come up with the same results with the little information provided. What processes did you use to ensure rigor, and validity of findings?

What questions were asked in the focus group and how were these questions decided? What feasibility questions did the qualitative component address? What was the purpose of the qualitative component? Please state clearly.

Participant demographics

There is no description of demographics for the different groups: intervention/control group/immediate/delayed groups.

Acceptability of the intervention

Line 13 what does the 'information about the study' refer to? Patient information sheet/letter? Or something more general. Please specify.

Table 5

Please present the findings from the different groups.

There is a lot of missing data. What efforts did the team make to collect this on other occasions (add to Discussion: strengths and weaknesses)
Qualitative results.

An interesting section and provides some important findings to help design a better future intervention.

Without understanding the reason for doing the focus group it is difficult to judge who took part and what you wanted to find out as you have only reported the findings. It seems to just be about the intervention itself (see earlier comment).

Please state what groups the people in the focus group, any comments about important demographic characteristics.

Were there any differences in findings between the different groups? (if this is what you set out to do by randomising?)

It would be good to know how long the group lasted, and how many of the participants were there/how they were selected, and the number that contributed/spoke.

Discussion

The headings here should relate directly to the feasibility questions and the findings linked to these. More work is needed to discuss the findings with the direct implications for the design of a future study methods (recruitment, retention, outcome measures, randomisation, and components of the intervention.

Strengths and limitations

Line 15 p 27 The issue of measurement bias is not relevant as you did not report outcome measures (not an objective to test effectiveness).

Recommendations for a further study

This section seems too short considering that this is a feasibility study (to inform a future study). What would you do differently to overcome the issues highlighted or to ensure the successes are present again? There should also be more links from the findings to the theory - was it supported or not? Is the theory useful for a future trial? EG How would you involve patients and or the public and stakeholders in a future design? How could you resolve the phone call support issue? How could you address the lack of friends and family social support?

The consort diagram need to have number of participants at each step. Please see guidance

Consort Diagram

Conclusions are clear and do not overstate the findings.
I have not checked the references.

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