Author's response to reviews

Title: Children, parents and pets exercising together (CPET): exploratory randomised controlled trial.

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Author's response to reviews: see over
The authors have provided comments from both reviewers and responses below.

**Reviewer's report**
**Title:** Children, parents and pets exercising together (CPET): exploratory randomised controlled trial.
**Version:** 1  **Date:** 13 August 2013  **Reviewer:** Lydian Veldhuis

**Reviewer's report:**
The aim of this Research article is reporting the feasibility and acceptability of the CPET intervention and trial, reporting preliminary evidence of its potential efficacy, giving implications for planning and powering of future interventions, and assessing to what extent dog walking contributes to MVPA among adults and children. In addition, the exploratory trial was intended to improve the understanding of the frequency, intensity and duration of dog walking among dog owning families in Scotland.

The authors conclude based on the results that the CPET trial was feasible and that the intervention was acceptable to participants. The results indicate however also that there was no significant change in PA outcome measures in the intervention group.

The manuscript is interesting, and the results will be of particular interest to those interested in developing an intervention to improve PA within families by dog walking.

- **Major Compulsory Revisions**
  1. My main comment is that the authors should discuss their findings more, and should elaborate more on what can be concluded based on their findings. For example:

   a. The authors do not discuss the findings of the focus groups in the discussion section.  *This has now been done, see lines*

   b. Most parents indicated in the questionnaire that the intervention was sufficient to motivate them to increase the amount of dog walking they did previously. During the focus groups parents indicated that they experienced longer walks. However, these findings are not in line with the results of the PA measurements. What does this mean? What might be reasons for this contradiction?  *This has now been included, see line*

   c. What may be reasons for the lack of differences between the intervention and control group? Was the intervention duration too short? In the intervention group, the total duration of dog walking at follow up was even lower compared to the total duration of dog walking at baseline. Might this be due to bad weather in the follow-up measuring week for example? Might the results be different when PA was measured continuously during the study, and not only in week 11?  *Possible reasons have been included in lines*
d. One of the aims of the study was to improve the understanding of dog walking among dog owning families. These findings should be summarized in the discussion. Information on the intensity of PA during walks had already been discussed, the duration of walks compared to other studies has now been included.

e. Implications for the planning and powering of future interventions should be described more specifically in the discussion section. What are specific recommendations for future interventions? Recommendations have now been included.

- Minor Essential Revisions

2. Abstract: in the background section it is stated that it was part of the study’s aim to assess the potential efficacy of the intervention, but this is not described in the discussion section of the abstract. This has been added to the discussion section of the abstract.

3. Abstract, methods section: please add a short description of the intervention (e.g. families in the intervention group were motivated and supported to increase frequency, intensity, and duration of dog walking; home visits, e-mails/calls were used, etc.). This has been included.

4. The third paragraph of the introduction section ends with a part of the study aim: ‘The present exploratory … families in Scotland.’ This should be added to the aim of the study at the end of the introduction. This has been added.

5. In the methods section of the main manuscript, in the paragraph on outcome measures, it is stated that the secondary outcome measures are listed in the article describing the study protocol (Yam et al). However, as the study also presents results on these secondary outcomes, a reference to the study protocol-article is not enough; all outcome measures investigated should be described in the methods section. All outcome measures have now been included in the methods section.

6. In the methods section, paragraph outcome measures, the specific cut-off points used to define the intensity of the PA of children and parents should be described, not just references to other papers. These numbers should also be added as footnotes to the tables. These have been included in the outcome measures section and the tables.

7. Results section, potential efficacy, sedentary behavior and PA: the authors describe that the control group parents increased PA MORE than intervention group parents. However, PA did not increase at all in parents in the intervention group; it even decreased. Please consider revising this sentence. This sentence has been changed.

8. The authors mention in the first paragraph of the discussion section that there were no effects on the primary and secondary outcome measures, but no description of these measures is given. Please, describe the primary and secondary outcome measures of this study in the first paragraph of the
discussion section. The authors agree, and would like to fully list all outcome measures, however in an effort to keep this section concise the outcome measures have been summarised in brackets.

9. Discussion section, fifth paragraph: comparisons should be made with other studies that investigated the number and duration of dog walks (these studies are mentioned in the introduction section). This has now been done

10. Footnotes should be added to the tables; the abbreviation cpm should be described, it should be described for which differences the p-value are reported, the definitions of the different levels of PA should be given, etc. This has now been done

- Discretionary Revisions

11. The readability of the first sentences of the introduction might be improved. The link between low PA and health can be described more clearly. First, it would be informative to give some examples of the health benefits associated with MVPA. Further, I would suggest splitting the sentence “Recent evidence from … 7-11 years old)” into two sentences; one about the changes in PA during childhood and one about childhood weight status. Some examples of the health benefits of MVPA have been included in the introduction. The sentence in question has been split into two.

12. In the result section, baseline PA and dog walking; my suggestion is to add this information to the Tables 1 and 2. Instead of describing it fully in the text of the results, add a sentence to the results, e.g. “PA and dog walking of the total study population at baseline is described in Table 1 and Table 2.” Now it is quite a list, not easy to read, and this information is not of main interest. The authors agree that this section was slightly hard to read, but feel adding this information to the tables will result in having too much data in them. As a compromise we have split the paragraph into three sections to make it easier to follow. We hope that this is acceptable

13. Results section, potential efficacy: I would suggest the authors to remove the first paragraph about the duration of the accelerometry monitoring from the result section, and add this text as footnotes to Tables 1 and 2. In my opinion it is additional information, and not a main result of the study. This will also improve readability. This has now been done.

14. Results section, potential efficacy, second paragraph:
   a. The authors state in the third sentence that “Changes in all other outcomes were not significant ….”. However, only one of the changes described in the Tables 1 and 2 was statistical significant. Please consider revising this text, perhaps by mentioning that the Tables represent the primary outcomes of the study? The text has been revised
   
   b. Please consider removing the sentences “Off the 28 … (see supplementary information).” and instead add this information as footnotes to the tables. These sentences have now been removed from the main text and the information added as footnotes to the tables.
15. The first paragraph of the discussion section might be improved by restructuring some of the text. My suggestion is to split up the sentence “The results show … the secondary measures.” and first elaborate on the results regarding the feasibility and acceptability of the intervention, and then describe the effects on PA. This section of the text has now been restructured.

16. Discussion section, sixth paragraph: “…was shown to be promising.” Please clarify; was this promising based on earlier research? If so, please add the references here. If you mean that it is promising based on the results of the present study, please describe this more clearly. This sentence has been rewritten to make the point clearer.

17. Discussion section, sixth paragraph: “The amount of … were indeed so.” It is not clear to me what the authors mean to say by this sentence. Please consider revision. The sentence has been revised.

- Minor issues not for publication:

18. (Actually a major issue, but not suitable for publication) In the documents I received for reviewing, Figure 1 is missing... Figure 1 was uploaded at a later date. The authors apologise if you did not receive this at the time. The figure should be on the manuscript submission system.

19. Abstract: “…, 97% of outcome data were collected at baseline and follow up.” It is not clear to me what the authors mean with this sentence. To what does this percentage refer? This statement refers to all outcome data, i.e. 97% of all outcome measures were collected. The sentence has been changed to make this clearer.

20. In the results section, feasibility of the trial, second paragraph; please correct what seems to be an incorrect sentence: “Twenty-eight families (22% of those who expressed an interest), two with two eligible children IN EACH [?] …” The sentence has been changed to make this clearer.

21. In the results section, feasibility of the trial, second paragraph; suggestion to change the following sentence: “… and 23/27 children (84%) available at follow up.” to “… and for 23/27 children (84%) at follow up.” The sentence has been changed.

Level of interest: An article whose findings are important to those with closely related research interests

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.
Reviewer's report
Title: Children, parents and pets exercising together (CPET): exploratory randomised controlled trial.
Version: 2 Date: 10 September 2013
Reviewer: Wendy Robertson
Reviewer’s report:
I thought it was a well written and interesting paper on a novel intervention. The aim was appropriate for a feasibility trial.

Major Compulsory Revisions
None.

Minor Essential Revisions
1. Methods – Page 9 – For the accelerometer it would be good to know the criteria used for a valid record (e.g. number of days, hours per day), and how non-wear time was identified. This information has been included in the revised manuscript.

2. Results – Page 12 – Do you have gender, ethnicity and/or measure of socio-economic status to add to the ‘Characteristics of participants’? On page 14 you comment that families from less affluent areas may not feel safe to participate, so it would be helpful to know the SES of the families who took part in the feasibility trial, and whether the participants reflected the demographics of the area. This information has been included in the revised manuscript.

3. Methods – What time of year was the intervention run? Winter / Summer may make a difference, so would be good to know. This information has been included in the revised manuscript.

4. Discussion – The low conversion of those receiving information to those randomised is, as the authors say, a concern for recruitment to a definitive trial. A further question from these numbers is whether this intervention is really acceptable or desired by the population. Some formative evaluation may be warranted prior to a definitive RCT for example to the group who did not take part. The authors agree and a sentence has been added to the revised manuscript.

Discretionary Revisions
1. Abstract – Under methods include the duration of follow-up i.e. at the end of the intervention, for the primary outcome measure. Could also state that randomisation was 1.5 to 1 in methods. MVPA needs to be in full. This information has been included in the revised manuscript.

2. Methods – Page 9 - I understand that Evenson’s cut-offs for the intensity of PA from accelerometer counts are now preferred over Puyau’s, at least in this paper: http://www.ncbi.nlm.nih.gov/pubmed/21131873. As the paper is analysing difference over time then this is not of great concern. The reviewer is correct in saying that Evenson’s cut points are preferred in the cited article. We agree that because the study is longitudinal using Puyau’s cut points is not of concern. Furthermore there are a number of other studies on going comparing cut points and until the results of these are published it may be unwise to abandon our existing methods (i.e. using Puyau’s cut points) based on the results of a single study.
Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests