Reviewer's report

Title: "Booster" interventions to sustain increases in physical activity in middle-aged adults in deprived urban neighbourhoods: internal pilot and feasibility study

Version: 1 Date: 30 August 2010

Reviewer: Anelise Gaya

Reviewer's report:

Major Compulsory Revisions:

The manuscript entitled by "Booster" interventions to sustain increases in physical activity in middle-aged adults in deprived urban neighbourhoods: internal pilot and feasibility study" reported the feasibility of recruitment, protocol delivery, retention of three month and a estimation of explanatory power of a very important intervention about adults physical activity. This is a very important research associated with adults public health. Beyond of promotion a intervention, this authors verified the feasibility of a intervention to sustain increase in physical activity along three months.

In my opinion there are two main important differential of this stud: (a) tried to sustain physical activity and (b): the importance of detecting the main flaws in order to improve implementation of the intervention and make it an important means of primary prevention to public health of this community specifically.

I consider this a important paper for public health. I accept your paper to publication, however, there are many consideration to do about your paper before its publication

1. It is necessary to rewrite few parts of your abstract.

2. Is necessary to do a brief revision of literature about the importance of physical activity from the adults population. Why physical activity is an important behaviour for these population? What is the main role of the intervention programmes? You just wrote about your intervention program. Is important to write about physical activity and the role of this variable for the health.

3. The methods/design is not easy to understand. There are several section in methods design. It is necessary to reform this.

4. Is recruitment of 60 participants your 100%? As well as 45 patients with 3 months follow up acellerometry measurements? This is not clear. You have to change this sentence. I didn’t undestand why 60 participants is 100% of feasibility. There isn’t in your methodology.

5. Why did you send letters for 3.300 adults? Why did you chose this number in approximately 50.000 residents? Is necessary to explain this numbers.
6. Is really necessary to explain your methods. These are not clearly described.

7. It is necessary to describe the questionnaire assessment, the body mass index and the 12 minute walk test. It is not clear in our manuscript.

9. It is necessary to write and argue about the importance of your intervention for adults health. Why do you test the feasibility of your intervention?

8. It is necessary to rewrite your conclusion.

Minor essential revision:

ABSTRACT

Background:

1. Second phrase:
   - It is necessary to write the words associated to the abbreviation RCT (randomised controlled trial). Is the first time that this abbreviation was showed on your paper.
   - And “An RCT” is not correct, you have to change to “A RCT”.
   - I didn’t understand the sentence: “An RCT is needed to assess whether providing motivational interviews, three months after giving initial advice, sustains physical activity levels in those who became physically active”. I suggest that you change to “Through out a RCT we verified whether providing motivational interviews, three months after giving initial advice, sustains physical activity levels in those who became physically active”

2. Fourth phrase:
   - I suggest you to change the sentence: “We report the results of an internal pilot study designed to test the feasibility of the study in terms of recruitment, per protocol delivery of the intervention, retention at three months and an estimation of explanatory power” to “In this context, the aim of this paper was for report the results of an internal pilot study designed to test the feasibility of the study in terms of recruitment, per protocol delivery of the intervention, retention at three months and an estimation of explanatory power.”

METHODS/DESIGN

First phrase:
“Participant were: aged 40-64..”. - Which gender? Is this a volunteer sample?

RESULTS

- I suggest you change your sentence to give more emphasis to the study result that really matters: put between parentheses the absolute number of subjects recruited and not the percentage, because is the percentage values the results associated with the feasibility of your study.
CONCLUSION
Ok.

PAPER

BACKGROUND
1. I suggest you put the aim of the study more clear on your background.

METHODS/DESIGN
1. The methods/design is not easy to understand. There are several section in methods design. It is necessary to reform this.

Participants and Setting
1. Is necessary to report the characteristic of the study population.
2. At this topic you have to discuss only the population and sample characteristics. You don’t have to describe the intervention again here. The intervention is described many times in your manuscript. So, I suggest you remove: “This programme involved a “brief intervention” (interactive DVD), which is consistent with NHS guidance on physical activity and behaviour change interventions. Research assistants telephoned respondents and administered the Scottish Physical Activity Questionnaire (SPAQ)“. You have to describe the intervention on the topic “Intervention”. Your methods/design is

Interventions
1. I suggest you remove from the paper the affirmation: “The treatment fidelity and acceptability of the intervention are the subjects of separate subprotocols which will be reported elsewhere. In this report, the feasibility of the intervention is only considered in terms of intervention adherence (see below)”.

Objectives for the main study
1. I suggest you to change the title “Objectives for the main study” for the Objectives for the interventions.

Objectives for the feasibility study
2. I suggest you change the title “objectives for the feasibility (internal pilot) study” for “objectives for the feasibility study.” The reader understood that you were studying the feasibility of the internal pilot.
3. I suggest you considerate main and specific objectives instead of primary and secondary objectives.

Outcome for the main study
1. I suggest you to change the title Outcome for the main study for Outcome for the intervention.
2. I suggest you complete this topic with the information found at the topic: “Proposed sample size for the main study” about your assessment methods.
Here you are describing your main variables, however it is unfinished.

Outcomes for the feasibility of internal pilot study
1. I suggest you to change: “Outcomes for the feasibility (internal pilot) study” for Outcomes for the feasibility of internal pilot study.

Proposed sample size for the main study
1. I suggest you remove this topic and put the accelerometric, questionnary and other assessment methods clearly described in Outcomes for the main study. Is really necessary to explain your methods. These are not clearly described. I suggest you open different topic, for example:
   Acelerometer:
   SAPQ:
   Brief DVD intervention
2. Is necessary to explain the methodology used to verified the increase of physical activity. It is unclear.

Feasibility Criteria
1. I suggest you remove this topic and put this feasibility criteria on the topic: objetives fot the feasibility study.

Statistical Methods:
1. I suggest you remove the first paragraph. It is necessary to put these information on your methods design. This is not a statistical methods: “The mean difference and standard deviations were used to estimate a minimum clinically important difference (MCID) based on 1/3 of the SD of physical activity counts per week. The sample size for the main study was recalculated, using the standard deviation of PAC per week from the pilot study and the original standardized effect size of 0.33 from initial sample size calculation. A power calculation for the main study was performed on both the original (PAC per week) and proposed (TEE) primary endpoints, based on their respective MCID and observed standard deviation - 13 -from the feasibility study. This was only done for the main comparison (both booster interventions combined versus control).”

RESULTS
Recruitment
1. Ok.

Baseline Populations characterstics
1. There are sample characteristics and mean differences of the physical activity on Table 2. I suggest put this information on the title of this table.
2. I suggest you remove the words between parentheses (binary variables and continuos variables) of the Table 1 and Table 2 title.
3. I suggest you remove the sentence: “see text for explanation as to their inclusion” of the legend on the Table 2.

Validity of data and accuracy of data entry
1. I suggest you change the title: “Validity of data and accuracy of data entry” to “Validaty and accuracy of data entry”.

Evaluate data at 3 months of follow up
1. Again, I suggest you to change the values and put the absolute number between parenthesis and remove the percentage values.

Interventions received per protocol
1. Ok.

Summary of outcome measures the Actiheart
1. Ok.

Power estimation
1. Ok.

Serious adverse events
1. Ok.

DISCUSSION
1. I suggest you remove the summary findings. These is repeated in many parts of the manuscripts.

Improving recruitment and retention
1. Ok.

Proposed change of primary outcome
1. Ok.

Data quality and the EXERT questionnaire
1. Ok.

CONCLUSION
1. On your conclusion we have to find the answer of your main aim: Does this intervention to have feasibility to apply in this population?

2. I suggest you put on the conclusion your final findings about recruitment, protocol delivery of intervention, retention at three months and estimation explanatory as you have in our aim. There are only the conclusions about recruitment and retention people who also have the evaluate accelerometry.
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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.