Reviewer's report

Title: Which Older People Decline Participation in a Primary Care Trial of Physical Activity and Why? Insights from a Mixed Methods Approach

Version: 1 Date: 31 January 2014

Reviewer: Michael Brach

Reviewer's report:

The paper deals with an important subject – recruitment and selection bias – and is well written. It may help other researchers to improve their procedures.

Discretionary Revision

Results

1. In subsection iii, the 77 agreeing to be interviewed, could be compared in the same way as shown in table 1 (upper part), in order to be consistent with the other analysis.

Table 1

2. In order to improve readability, you may consider splitting the table according to the corresponding subsections of the main text.

3. In the lower part, a column showing statistical significance seems to be missing. Otherwise, the main text should clarify that the reported (non-)significance is complete.

4. The presentation of gender information in the upper and the lower part of the table should be consistent.

Strengths and limitations

5. The mixed methods approach should be mentioned as a strength of your study (not only in conclusions).

6. I wonder why educational and economical status is not reported, for this is a common feature of selection bias. Relying on UK postcode should be clarified and possibly discussed as a limitation. If you could deal with this information in the table, section results and discussion (and compare with general population data), this would make your paper even stronger.

Minor essential Revisions

7. On page 8, reporting on overweight and pain, add "adjusted OR".

Major compulsory Revisions

Methods

8. Please provide some information on the following aspects (even if you already
described details in the study protocol):
# UK postcode information and the Multiple Deprivation Rank and the connection to economical status, for non-UK readers (see discretionary: strengths).
# Target number of patients
# Recruitment of GP practices
# Invitation as part of a couple

9. The last aspect particularly important for the study protocol mentions studying the effect moderation of "taking part as part of a couple" as one of the study aims. Consequently, this should also be studied as a possible recruitment moderator. Corresponding figures should be reported in results (and discussed). Otherwise, if you plan to publish an additional paper on the "couple" subject, please provide enough information in a way that the reader will not have the impression that the study protocol (which includes not only procedures but also aims and analysis) has been changed.

**Level of interest:** An article of importance in its field

**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'