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: 8 September 2010

Reviewer: Falko F Sniehotta

Reviewer's report:

- Major Compulsory Revisions
  NONE

- Minor Essential Revisions

This manuscript reports findings from the pilot of a randomised controlled trial. I will mainly comment on the behavioural science aspects of the manuscript as I think the authors have the opportunity to make more impact by addressing some key issues.

1. Developing and testing booster sessions with a view to supporting participants in maintaining recent changes in physical activity is both important and timely. However, neither the published protocol, nor this report elaborate in any way on what is known about maintenance, why people often relapse to sedentary patterns of behaviour and how interventions can best support sustainability of behaviour change. I think referring to the evidence is crucial in showing how the interventions might address such issues.

2. Generally speaking, the authors do not report why they selected the intervention approach they used, and how the intervention procedures were developed. The rationale for the interventions is unclear.

3. The intervention content and procedures for both, the initial DVD intervention and the booster sessions are not well described in the protocol or in this report and I could not replicate this work or even make sense of it during evidence synthesis and systematic reviews. MI is not a scripted intervention, but rather a broad approach. Two people trained in MI could deliver quite different interventions. In addition, most MI interventions use specific behaviour change strategies such as goal setting etc. I think this manuscript would make a better contribution to the literature if the interventions are thoroughly described or – even better – made available as online supplements.

4. The measurement of PA is confusing. For inclusion purposes, authors focus on moderate-strenuous PA and use self-reports. For outcome assessment, no cut-off for intensity is used. This seems to be a mismatch.

5. In line with the previous two points, it is unclear if the intervention aimed at encouraging people to increase moderate to strenuous PA or any level of PA.
6. Intervention fidelity is unclear, which is in part due to the fact that the intervention as such is not described in detail. Is any information available about the content of interventions? See for example Hardeman, W., Michie, S., Fanshawe, T., Prevost, A. T., Mcloughlin, K., Kinmonth, A. L. (2008). Fidelity of delivery of a physical activity intervention: Predictors and consequences. PSYCHOL HEALTH 23(1), 11-24 doi:10.1080/08870440701615948 using a more effective approach to fidelity which goes beyond the question if participants took part in the consultation.

- Discretionary Revisions

1. Would be good to break data in Table 2 down by group participants had subsequently been allocated to.

**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