Reviewer's report

**Title:** A community-based intervention to improve dietary habit and to promote physical activity among the elderly: A cluster randomized trial

**Version:** 2  **Date:** 23 March 2012

**Reviewer:** Taina Rantanen

**Reviewer's report:**

General comments
This is a small scale cluster randomized trial on the effects of a seminar series concentrating on diversifying food intake and increasing physical activity among older people. The topic is interesting and well suited for this journal. The additional cross-over analysis which served as a replication of the study is actually a nice touch.

I have, however, some criticism which I will discuss below.

Major compulsory changes

1. The research question is not presented very clearly. Already in the abstract it should be made clear that the intervention is educational (a series of seminars). The abstract should be revised and should include more precise information of the study.

2. I am not sure of the importance of some of the outcome measures such as number of different foods.

3. I am also wondering about whether the participants are of normal weight, overweight or underweight. Do they have nutritional deficiencies?

4. Were the participants selected based on the fact that their eating habits did not meet the recommendations?

5. My main criticism has to do with the issue of methods. It is unclear whether the participants are community living or whether they are residents of an assisted living facility. The authors state that they were living in a ward but later indicate that they were living in different parts of town. Please, clarify.

6. The intervention description could be clarified.

7. Description of data collection is quite vague.

8. Data analysis is not sufficient. The cluster randomization is not taken into account in the analyses.

9. The data analyses do not answer the question whether change differed between the groups (no group by time interaction term is reported).

10. Power calculations are missing.

11. Main outcome is not defined.

12. I do not think that the actual data and analysis support the conclusions.
13. The participants are not well described. Did they have specific diseases which reduce their physical activity, such as arthritis, CHD? What is socio-economic status of the participants? Their educational background? Do they cook for themselves? etc.

14. The study was evaluated by an ethical committee. The study does not comply with the standards for reporting randomized controlled trials (Consort Statement). Please, consult the instructions and revise accordingly.

15. The authors often use the term ‘improved dietary habits’. I find this rather vague and would prefer the exact improvements to be stated.

16. The authors list in limitations that randomization was not successful. However, no attempt is made to control for the cluster randomization or the age difference between the groups. Just acknowledging this problem may not be enough.

17. The authors are citing a number of relevant studies, but do not really acknowledge the theories of health promotion. It would be a bonus to describe the theory of health behavior (change) underlying the development of the intervention.

18. I recommend that the text is reviewed by a native English speaker.

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

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests