Reviewer's report

Title: Physical exercise at the workplace prevents deterioration of work ability among healthcare workers: Cluster randomized controlled trial

Version: 2
Date: 18 July 2015
Reviewer: Oili Kettunen

Reviewer's report:

Thank you for the opportunity to read and review your interesting article. Here are some comments to your manuscript.

1. Your study question/hypothesis is well and clearly defined and this is an interesting and original approach to the field of Work Ability/ exercise studies. It is important that this kind of intervention could be used as a “good practice” in different companies not just among health care workers.

2. The method used in your manuscript is well described in the method paragraph and the figure 1 is informative. In practice 10-weeks intervention is however quite short to tell improvements in WAI, especially when the baseline WAI was already “good”. It would have been interesting to see how The WAI of the study persons of the different WAI-categories at baseline: WAI poor/moderate would be after 10-weeks.

3. The amount of study persons is large and representative enough to describe female healthcare workers. The mean baseline WAI however is quite high in the sample, and it would be good/interesting to know how many of the study persons “WAI poor” and “WAI moderate” had at baseline. It is common that about 15% of the sample is in categories “poor”, does your data divided according to this? The paragraph two in discussion The WAI score can be classified in four categories; “poor” (7-27, n=X?)...you could have described the amount of persons in each category in your data.

4. The figures are genuine and informative.

5. The manuscript adheres to the relevant standards of reporting a data.

6. The discussion and conclusions are quite well balanced and supported by the data. However there are some issues I would like the author to consider: The difference between the study groups after 10-weeks was because of the decrease in WAI of “HOME”-group. There could be more discussion of the possible other reasons. The seasonal variation is one option, but there might be some more reasons? I am wondering if the “HOME-cluster” would have needed some guidance with the “training-bag”, how to use the equipment correctly. Maybe they did not understand how to do the home-exercise in a right technique and they become some muscle pain because of the wrong technique? And this would have effected to the low motivation of the HOME-cluster (mean 1xweek exercise). It would have been interesting to have a really “follow-up” after the intervention: both clusters without any guidance or group exercise and see how
stabile the results are and is there long term effect of the results? I was also wondering how many of the HOME-cluster participated to the ergonomic-counselling; I did not find it in the results or discussion.

7. The limitations of the study are clearly stated.

8. The acknowledgements according to the published and unpublished material are clearly stated in the manuscript.

9. Title and abstract are in line with the findings.

10. The manuscript is written with acceptable English language. Small grammatical notices: Discussion: page 12 at the bottom, line 282 can you rewrite the sentence, or are there a word missing: The use of dedicated instructors throughout the intervention may besides ensuring….Paragraph strengths and limitations: first sentence, read it again: is there a word missing? by outcome expectations IS a limitation….?

Discretionary Revisions: The WAI-classification at baseline versus follow-up I mentioned above in the comments number 3 and 6.

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 below.