Reviewer's report

Title: Nordic Walking in the treatment of chronic low back pain patients. A single blind randomized clinical trial.

Version: 1 Date: 28 April 2009

Reviewer: Jaana Helena Suni

Reviewer's report:

Major Compulsory Revisions

1. The major concern of the proposed paper is the lack of knowledge on both the intended dose (intensity, frequency, duration, total volume) of supervised Nordic Walking and the actual dose performed by the participants of this group. Furthermore, the dose of walking in group B should also be described somehow (diary and accelerometers are mentioned in Figure 1.) The authors refer to important reviews on former findings on exercise and LBP and are clearly well aware of the poor knowledge on what has actually been done in these former studies. Thus, the contents and dose of exercise is a critical factor and should be reported carefully.

2. The use of diary and accelerometers should also be described.

3. The statement (page 7 paragraph 2) “tempo was adjusted according to the lowest participants” needs explaining, while it ruins the idea of pre-planed exercise dose of the study.

4. Data on exercise compliance and results on the changes in cardiorespiratory fitness should be included in the paper. They are essential parts of being able to understand the results. The reader can not be expected to read these facts later from a (possible) future publication as suggested in the introduction.

5. The description of the randomization process is not clear. Was it conducted as an ongoing process during the two years of recruitment?

6. Recruitment should be described in the methods section and not as a result. The recruitment time should be added to Figure 1 since it took two years. It is not clear how the training proceeded during this two year time. It seems that the small groups started training in different times during the two year period?

7. Adjusted mean differences of the changes in the primary outcomes of LPB and disability in the three intervention groups should be reported instead of figures 2-4. It is not clear what are the analyses that indicate no significant differences between the groups.

Minor Essential Revisions

8. What is the scale for Patient Specific Function Scale? Abbreviations on EQ-5D should be explained in the text as well as scale use in it.
9. The description of the expectation to treatment is not clear. Please, provide more information on the contents.

10. Use wording “statistical analyses” instead of analyses.

11. Add abbreviation MCID on page 9 after the written text of it.


13. In Table 1, there are three groups however it is not clear what they are. Also the abbreviations used in the table should be explained. The last part of the table about randomization is difficult to understand.

14. Test at 10 week follow-up in Figure 1 should be explained.

Discretionary Revisions

15. The authors question in the introduction whether Nordic walking is an effective mode of general physical activity in the treatment of low back pain. The question itself is clear, however, a hypothesis on what is the plausible biological mechanism could be included in the introduction [i.e. increased cardiorespiratory fitness(?), decreased loading of the back while using the poles(?) etc.]

16. The statement “cardiovascular issues” in the last sentence of introduction gives rise to a question whether the subjects had risk factors or symptoms of cardiovascular diseases, and was the main aim of the study to influence these? Please, explain this.

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

**Quality of written English:** Acceptable

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