Reviewer's report

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

Version: 2 Date: 3 September 2009

Reviewer: Jaana Helena Suni

Reviewer's report:

The numbers refer to same questions that were pointed out in the previous report.

New questions and comments are labelled with letters.

Major Compulsory Revisions

1. The revised manuscript still lacks the information on the intended dose (intensity, frequency, duration, total volume) of supervised Nordic Walking. Furthermore, it is not clear what was the base of exercise prescription at individual level (Results from the ergometer test? Health status? Perceived exertion during walking?), and what were the instructions to the participants concerning the dose.

4. The authors state in the discussion that physiological change was hardly the reason for better average result in NW group. How did you come into this conclusion? Did the fitness test results show this, or was the compliance so poor? The new additional information from accelerometers is of importance, however we still do not know what was the compliance compared to intended dose. For instance, how many supervised exercise sessions did the participants complete in average and what was the range of that? Thus, I still feel that more precise data on exercise compliance and some facts about cardiorespiratory fitness changes should be reported.

A. Since I did not comment the discussion part of the former version, I would now like the authors to comment and discuss the following point. Why did you select bicycle ergometer as the test method of cardiorespiratory fitness while the mode of training was walking? (i.e. why was waking in the treadmill not used as the test mode?) It has been shown that waking is a better test mode among chronic LBP patients*. Furthermore, there is biomechanical evidence that brisk walking results in lower lumbar spine torque and muscle activity, as well as reduced spine loads with energy conservancy from arm swing than slow walking.**


B. I find the second paragraph of the discussion irrelevant while return to work
was a secondary outcome and the content is very speculative.

C. Add paragraph to discuss the strengths and limitations of the study.

Discretionary Revisions
13. I still find the randomization part of the table 1 difficult to understand.

15 A clear hypothesis, based on a plausible biological (or possibly psychosocial) mechanism, on the reason for selecting Nordic walking as the effective exercise mode for patients with LBP is still lacking. In my opinion, a clear hypothesis would improve the scientific value of the report.

D. The order of the topics in the discussion is somewhat “jumpy”. Discussing the compliance first, the primary outcomes secondly, and other issues after that would make the article easier to follow.

The next step
- I find the article acceptable for publication as soon as some more precise information on intended dose, exercise compliance and fitness changes are provided.

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.

Declaration of competing interests
I declare that I have no competing interests.

Open peer review
Submission of this report is taken as confirmation that you are happy for your signed report to be posted on the BMC Musculoskeletal Disorders website as part of the pre-publication history of this article.