Reviewer's report

Title: No effects of a 12-week supervised exercise therapy program on gait in patients with mild to moderate osteoarthritis. A secondary analysis of a randomized trial.

Version: 1 Date: 13 August 2014

Reviewer: Celena Scheede-Bergdahl

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Major compulsory revisions:

1) Lack of pre-defined hypothesis: While it is stated in the manuscript that, due to lack of previous work in the area, that there is no pre-defined hypothesis, could a hypothesis not be formulated based on comparable disease conditions? Perhaps, even with OA, previous studies that included exercise training as therapy could be referred to, even without investigating the same end points.

2) Training specificity: The authors do not discuss how the test measures reflect the exercise training protocol. Perhaps the testing did not accurately reflect how each subject trained, therefore potentially missing benefits obtained. Did the exercises performed reflect the same muscle groups/activation patterns that would be detectable during gait analysis? This needs to be addressed in text.

3) How were the individualized training prescribed? Was there a guideline that defined which exercises, dosage and progression was prescribed for each patient in order to give comparable exercise programmes? How was adherence to program monitored? Was there any control for exercise conducted outside of those prescribed for study? Especially considering that there is a gap in the literature pertaining to dosage for this patient population (as discussed in manuscript), this information could be useful.

4) Why was the study compliance so low? It would be interesting to know why subjects did not adhere to program, especially for clinicians who wish to implement similar programs.

5) Were there any reductions in pain due to intervention? Or improvements in physical function (ie: ability to walk, pain free) that could be reported? Other measures, such as the 6 minute walk test, could give important insight into possible improvements in physical function.

Minor essential revisions:

Manuscript would benefit from English grammatical review.

In flow chart, check the box "excluded from analysis": during is misspelled.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.