Reviewer's report

Title: Physical activity in subjects with Multiple Sclerosis with focus on gender differences - A survey

Version: 1 Date: 7 February 2014

Reviewer: Jürg Kesselring

Reviewer's report:

This cross sectional cohort study links the aspects of gender with the physical activity level of persons with multiple sclerosis (PwMS). The evaluation of physical activity levels in PwMS is an important issue of standardized rehabilitation programs as evidence of the beneficial effects of exercise exist but its implementation in rehabilitative programs proceeds rather slow. However the manuscript stays often unprecise and some serious concerns exist.

Introduction
- A brief one sentence concerning the Inflammatory aspects of the disease should be added.
- The underlying rationale of the study and the physiological background needs further clarification in the introduction: when is a person defined physical active when not? Where are the differences of health status of PwMS to normal healthy subjects (energy expenditure, METs, VO2max, heart-rate)
- The authors should clearly state their hypothesis and should be more specific – specify in what "direction" did you expect things would change?
- Also, clear and defined primary outcome measures of all examined parameters.

Methods
- The authors should specify the primary outcomes of this study. This does not become to clear to me the authors describe several questionnaires however only four are translated into Swedish. Also, structure of the self-assessment questionnaire should be clearly specified: which of the described measures were included. the self-assessment questionnaire and the interview of what the
- Include all psychometric properties of the questionnaires in their descriptions.
- Was the data normally distributed?
- Did you perform a power calculation? How was the data of the drop-outs used: Did you perform an intention to treat analysis?

Results
- What happened to the fatigue scores? They seem to be missing in the text fragment of the result section. However they are included in the table. Please
include a brief one sentence saying that there were no changes.

- Could you insert the 95% confidence intervals of the primary outcomes?

Diskussion

- The importance and relevance of gender does not become clear to me. Could the relevance for clinical and therapeutical practice be discussed or specified?
- Which recommendations would you give for the daily work in rehabilitative settings?
- Limitations should be discussed more precisely: obvious are numeric differences of 248 females against only 84 males.
- Finally grammar and spelling should be improved.