Reviewer's report

**Title:** Pragmatic randomised controlled trial of preferred intensity exercise in women living with depression

**Version:** 2 **Date:** 19 April 2011

**Reviewer:** Colleen Keller

**Reviewer's report:**

April 15, 2011

Thank you for letting me re-review this interesting and important work. The report is cogently presented, well articulated, and includes informative tables. The topic is timely, given the pervasiveness of depression among middle-aged women. The description of ethical procedures used in addressing human subjects was well presented. I am not convinced that the authors were responsive to the original review. I do have some comments that, when addressed, might strengthen the report:

Original comment:
1) There is no theoretical rationale for the manualized intervention. The investigators remark that they used a manualized psychosocial support through motivational interviewing and advice on healthy lifestyles around exercise as the intervention, with the primary intervention component preferred intensity. Without a theoretical rationale, the report falls short of a) describing the rationale for the age range, the rationale for including only women, 2) The outcomes, Physiological, psychological, and social well being were not specified to which scales measures which outcome. 3) the intervention mediators were not identified: this leads to problems in the reporting - what part of motivational interviewing and social support was hypothesized to impact self esteem? Why was Becks Inventory selected to measure depression? 4) If the participants were exercised in cohorts of about 5, how did the investigators know that it was intensity that contributed to adherence and not the social interaction of the cohort members?

New Comment:
1) The authors state that the purpose of the study was to address the question: does exercise of preferred intensity lead to better psychological, physiological
and social wellbeing outcomes and improved adherence rates when compared with exercise of prescribed intensity? The authors state that the importance of the study and the intervention effect was likely due to the "manualized intervention". Again, the TTM, or Stages of Change Model includes very specific components that would be included in an intervention (processes of change) that would move participants to behave in some fashion - in this study alter their intensity based on some sort of mechanism that contributes to decision-making for preferences. Unfortunately, the reader is provided only with the information of the notion the investigators used some named theory, some 'manualized' intervention. The authors state "We hypothesised that to generate the improvements across a range of outcomes among depressed women who are largely sedentary; exercise must be accompanied by supportive psychosocial interventions. This hypothesis has been confirmed by our findings". We are still not informed of how the group differences occurred, only that they occurred, thus this report does not contribute to the science at all. Second, other than the mention that women appear to have a greater prevalence of depression than men, there is still no rationale for selecting only women, and women of the selected age range.

2) The authors cited each measure, but continue to omit how the selected measures operationalize the theoretical constructs of the intervention (please, suggest that authors consider all the research literature in the exercise sciences that discuss mediating effects and need for theory to guide interventions).

3) How did the investigators know that it was intensity that contributed to adherence and not the social interaction of the cohort members?

Original Comment:

3) The inclusion criteria state those women who were being monitored by or receiving treatment for depression would be included. This raises questions regarding the diagnostic criteria for monitoring or treatment, compounded by the sample description of large variance in medication or/and therapy for depression, variance in the presumed severity of depression among the participants

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Original Comment:

5) The discussion does not related the results to the research to guide the reader how this work impacts the science and moves it forward.

New Comment
5) The discussion does not related the results to the research to guide the reader how this work impacts the science and moves it forward. Rather the discussion claims intensity was improved in ‘preference’ group, but presents no notion how this phenomenon occurred.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I have no competing interests