**Reviewer's report**

**Title:** Exercise and Cancer-Related Fatigue in Adults: A Systematic Review of Previous Systematic Reviews with Meta-Analyses

**Version:** 0  **Date:** 04 Jul 2017

**Reviewer:** John Saxton

**Reviewer's report:**

This is a rigorously conducted and comprehensively reported review of systematic reviews on the important topic of exercise and cancer-related fatigue.

The introduction section states refers to the NCCN reference, recommending that physical activity is a non-pharmacological strategy for the management of CRF and yet it seems that physical activity was not used as a search word for this review. Instead, the term "exercise OR physical fitness" was used. If this was the case, is it possible that some key references were missed? Although the term "physical activity" includes structured exercise (as rightly pointed out) it is not limited to this.

I think it would help if there was some comment/brief discussion about the two main questionnaires used to assess perceived fatigue in cancer populations. Also, what are the limitations of measuring fatigue by means of a questionnaire?

There is a lot of emphasis on methodological take-home messages, but less emphasis on implications for future original research (i.e. RCTs). In particular, what seems to be missing in the discussion of the limitations of published randomised controlled trials is consideration of the number of trials in the published literature in which fatigue has been measured as a secondary outcome and in which participants have not been recruited on the basis that they are experiencing clinically important levels of CRF at baseline - this may have the effect of diluting the effects of exercise on CRF or may even provide more evidence that exercise can exacerbate fatigue in those experiencing higher levels. This is only one example of a potential limitation of published RCTs that has not been discussed, I'm sure there are others. It would be useful for the research community to understand such limitations and gaps in knowledge so that future RCTs are better informed.
Some consideration and discussion of the potential mechanisms by which exercise could have a positive impact on fatigue would have been a useful inclusion.

Overall, this is a very useful piece of work, but I would have liked to have seen slightly less emphasis on methodological limitations/directions and more discussion about what can be learned from this to inform future original research (i.e. RCTs).

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

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I recommend additional statistical review

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