Reviewer's report

Title: Low fitness and perceived physical activity skills. A cross-sectional study of psychosocial factors and physical fitness in a sample of Finnish men

Version: 2 Date: 15 September 2013

Reviewer: Lars E Sørensen

Reviewer's report:

The object of the study is important and relevant considering the vast majority of sedentary people all over the world. The Physical fitness Index is interesting and because there is no reference to it, I understood that it is used for the first time in this study. This Physical fitness index would be worth an independent article.

Major Compulsory Revisions

1. This article is based on the very straightforward thinking, that physical activity leads to better physical fitness. There is one short notation, that genetics may be the primary reason for low PF, but the reference is not very updated. This question needs more thorough discussion, because it is the major confounding factor of this study.

2. In the Abstract of the article the Conclusions are different than in the article itself. In the abstract the conclusions are far too straightforward considering that the study is a cross-sectional one.

3. The Physical fitness index needs more clarification. Is it used before? If it is used here for the first time, why are the variables of PFI weighted like this? In the Methods paragraph there should be the references how body fat, visceral fat of skeletal muscle mass contributes to health.

4. In the beginning of the Discussion is a sentence '..63 per cent of them (men with low PFI) overestimated their fitness status'. There is no discussion about the relevancy of the PFI index.

Minor Essential Revisions

1. In the Abstract Background paragraph the PF is mentioned for the first time without clarification. Also in the Abstract Conclusions paragraph PA is mentioned for the first time without clarification.

2. In the Methods Sample and study design paragraph the purpose of the Fit for Life Program was described as to 'activate sedentary working-aged men'. How a campaign held in the market squares help in this? Is there any studies to show that sedentary men are met at market squares more often than physically active men? The result show (Table 1) that only 15.6 % of the men were sedentary (less than 1 h/week exercise) so the program was quite a failure, but of course it is very difficult to find these men as mentioned in the article. In the Discussion is
mentioned 'Recruiting participants from publically held events may have reduced selection bias' This seems not to be true, better move out this sentence.

3. In the Methods Self-rated physical fitness... paragraph the Likert scale is not opened for the statement 'I exercise sufficiently' as for the other statements and questions. This should be made.

4. In the Methods Psychosocial factors paragraph a 5-point Likert scale is also used, but this time 5 is given to answer don't know. Why is this? Is there a error in dichotomizing the responses in two classes (I agree/disagree or don't know). Should the classes be 'I agree' and 'I disagree' and the don't know answers should be analyzed separately.

5. In the Methods Barriers to and factors promoting PA paragraph a Table should be added to list the 10 items of barriers to PA and 8 items promoting PA.

6. In Results Psychosocial factors and physical fitness paragraph there seems to lack one OR ('low PFI was associated with the perception that a pleasant environment' only one OR here).

7. In Results Overestimated physical fitness paragraph in the first sentence ci should be in capital letters.


9. In the Discussion Strengths and limitations paragraph is mentioned that 'Primary purpose of events was not data collection'. How can the writers JK, KK and MP inform that they have contributed to the data collection, if the data was collected before the study was designed?

10. Table 2. Skills 'I have seek , should be sought?

Social support 'People close to me have a high regard for exercise' Should be PA?

11. Table 4, the number is wrong 1, should be 4. Somewhat unclear table. Using more words would made it easier to read, e.g.' Low PF realistic estimators.'

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.

Declaration of competing interests:

I declare that i have no competing interests.