Reviewer's report

Title: Physical activity as a predictor for chronic musculoskeletal complaints 11 years later. Results from the Nord-Trondelag Health Study

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Reviewer: Susan Picavet

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The field of lifestyle risk factors of musculoskeletal disorders is important and needs more evidence and research. The current study shows that several physical activity (PA) indicators are associated with musculoskeletal complaints 11 years later, in a population-based study of adults.

Major points
1. The authors mention that this study is relevant because
   a. it is not cross-sectional
   b. it is large (a high number of participants) and
   c. it is not only a ‘defined subgroup of the population’.

   Argument b. and c. cannot be discussed but argument a. can: because MSC were not measured at baseline the presented analyses is a cross-sectional analyses with measurements of 11 years in between. Furthermore it is well-known that the most important determinant of MSC is former MSC so if there is only a cross-sectional relationship between PA and MSC it will also come out in the present study. The authors can discuss more what the relevance of their analyses is. In addition: there is data on PA at follow up (isn’t it). More interesting questions are: how does baseline and follow-up PA relate? And are the MSC more related to current (=followup) PA or to former (=baseline) PA? So interesting things can be done with the data but is not a study of ‘physical activity as a predictor of MSC’ (see title).

2. The theoretical background in the introduction is very limited. ‘The association between chronic MSC and PA is not fully understood, and previous studies are inconclusive’ is mentioned in the introduction, but not is mentioned what is not fully understood and on what topics former studies are inconclusive?

3. Several indicators of PA are studied. Please add the exact definitions of the indicators (it is not enough to refer to other studies) in the text (not in a table) and please add what was expected of the relation between the different indicators and MSC. In addition: Is the relationship between PA and MSC the same for every anatomic site? You might expect that the relationship between PA and knee pain is different form PA and elbows. Why was MSC only divided in chronic widespread pain and chronic non-widespread pain?
Details

• Abstract: results of the study are usually not part of the methods section.
• Is there any validation of the MSC measurement, in the discussion reference is made to 16 and 17 which are not international retrievable, please add the findings of validation.
• Statistics: ‘other potential confounders such as alcohol consume were also evaluated’ please specify the complete list.
• The authors use exercise and physical activity interchangeable, this is not correct.
• Table 1 is not a table: the questions can be described in the text and the classifications can be presented in a scheme.

Level of interest: An article of limited interest

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