Reviewer's report

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

Version: 1 Date: 21 July 2008

Reviewer: Karin I Proper

Reviewer's report:

Major Compulsory Revisions

The title suggests a longitudinal analysis exploring the relationship between PA and MSD. Such an analysis would indeed be very interesting and valuable. However, when reading the manuscript I got the impression that despite the availability of longitudinal data, cross sectional analyses were performed. As the methods description is not clear regarding the use of data, I am still not sure about the analyses. I recommend the authors to be more explicit about this. What data (measured at HUNT 1 and HUNT 2) were used?

Moreover, my uncertainty about the longitudinal or cross-sectional analysis were not taken away by the terminology, that is the terms (ie. relation, association, predictor, etc) are used interchangeably and not correct.

Another major shortcoming of the study involves the fact that MSD were not assessed at baseline, HUNT 1. Thereby, the course of the disorders is unknown. In case of a relation between PA (measured at HUNT 1) and MSD (measured at HUNT 2), causality can still not be concluded, since the MSD could also already be present at HUNT 1. Because of this, the extra value of the longitudinal data are undone.

I further recommend the authors to use other references that involve studies worldwide (instead of those from Norway only).

Minor Essential Revisions

Abstract:
In the abstract, I do miss information about the study population and the analyses used.

Methods
Physical activity:
The instrument used to assess physical activity is rather rough in that no distinction is made between the different types of activity and energy expenditure. Moreover, it is more about exercise than about (daily life) physical activity. Further, it seems like a long-winded method to determine the physical
activity level.

Musculoskeletal complaints:
What is the reference of the instrument? Has it been tested for reliability and validity? Please give all relevant references available.

Results:
At page 7, results of the unadjusted analyses are described. As adjusted analyses were performed, why did the authors describe the unadjusted results?

Discussion:
What is the advantage of the population-based design for this specific study aim? (see page 9).

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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