Reviewer’s report

Title: Physical activity is associated with a low prevalence of musculoskeletal disorders in the Royal Norwegian Navy: a cross sectional study

Version: 2 Date: 8 April 2007

Reviewer: Jan Hartvigsen

Reviewer’s report:

General

Thank you for giving me the opportunity to take a second look at this paper. I can see that the authors have gone through great effort in revising the manuscript and it has certainly been improved. It is clear and well written. The fundamental problems regarding design are, however, still not solved. On the other hand the conclusions put forward can be justified based on the data, I just don't think they add anything to a world already burdened with far too many scientific papers where the authors are unable to assess cause and effect relationships.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

I recommend that the sentence starting at the very bottom of page 12 (However, ) and the subsequent sentence (However, ) be deleted. It is contrary to results from other studies.

I think the authors should discuss the issue of selection bias a bit further under methodological considerations. We are faced with selection bias at two levels: First at the overall level since employees in the army are likely to differ from other workers (the healthy worker effect), second at the level of participation (low response rate). The healthy worker effect has been shown to significantly influence results of cross-sectional studies dealing with LBP and this should be specifically stated - it will strengthen the paper. Please consider adding the following paper to the reference list: Hartvigsen J et al. The association between physical workload and low back pain clouded by the ”healthy worker” effect: population-based cross-sectional and 5-year prospective questionnaire study. Spine 2001. 15;26:1788-92.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

What next?: Accept after minor essential revisions

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 declare that I have no competing interests