Reviewer's report

Title: Associations between VO2max and vitality in older workers: a cross-sectional study

Version: 1 Date: 30 August 2010

Reviewer: Robert Newton

Reviewer's report:

Fitness appears critical to both physical and mental health. This paper adds to the body of knowledge supporting the importance of staying active throughout life by adding evidence for older working people. The relationship between vitality and estimated maximum aerobic capacity suggests older workers should try to maintain recommended levels of physical activity if they are to feel more energetic and less tired. Such a finding lends support for workplaces to provide opportunities and support for their older workers to exercise as this should translate to greater energy in the workplace, satisfaction and better performance.

There are some limitations to the study. Actual measurement of VO2max and BMI may have increased the strength of association but as this is part of a much larger study, the authors acknowledge that this was not feasible.

Major Compulsory Revisions
None

Minor Essential Revisions
page 4 suggest change to "...major academic hospitals in the Netherlands..."
page 4 suggest change to "...if they had not completed at baseline a 2-km UKK walk test..."
page 6 Try not to ascribe actions to inanimate objects. Tables and figures cannot really "show" or "present" anything. Authors can "present" in a table. This needs to be changed for each instance. e.g. "Results of crude and adjusted linear regression analyses for the association between VO2max and the RAND-36 Vitality Scale are presented in table 2."
page 7 - suggest change to "...cross-sectional Finnish study,..."
page 8 - why did you not measure height and weight as they have large impact on VO2max estimation and are so easy and quick to measure?
page 8 suggest change to "involved in the development of the Utrecht BurnOut Scale"
page 9 - "...considered work engagement to be the positive oppositely concept of burnout and should therefore be measured with different instruments..." This sentence must be rewritten as it does not make sense. What are you trying to say here?
Discretionary Revisions

page 3 - suggest change to "...promote and maintain good health."

page 3 - "it is hypothesised that VO2max is related to vitality." - It would seem more logical to state that vitality is related to VO2max as this was the premise of your introductory remarks.

page 6 suggest change to "...less than 0.05 was applied as the criterion to indicate..."

page 6 suggest find a better reference than the "Physical Fitness Specialist Certification Manual" for normative values of VO2max.

page 7 - citation Puetz should place the reference immediately after author name e.g. Puetz[13]

page 8 - suggest change to "...have not been any published studies investigating..."

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