Reviewer’s report

Title: Mechanistic experimental pain assessment in computer users with and without chronic musculoskeletal pain

Version: 2  Date: 12 September 2014

Reviewer: Niamh Moloney

Reviewer’s report:

Mechanistic experimental pain assessment in computer users with and without chronic musculoskeletal pain

In this paper Ge and colleagues use a comprehensive protocol to assess the presence of sensitisation and altered conditioned pain modulation in computer-users with and without chronic musculoskeletal pain. The topic of this paper is very current and adds to the growing body of work assessing different means of experimental pain assessment. The paper is well presented, the methods, results and conclusions are clearly outlined and consistent throughout.

I have a few relatively minor comments, which I hope will add to the quality of this manuscript.

Minor essential revisions

1. The authors refer to conditioned pain modulation and justify its inclusion; however, a more detailed explanation of conditioned pain modulation would be helpful for many readers.

2. In the background and methods, the rationale and scientific basis for assessing dynamic pressure algometry should be provided.

3. While overall the discussion interprets the findings well with appropriate comparison to the general literature on this topic, it was somewhat repetitive particularly when explaining that efficiency of CPM. You discuss the relevance of your findings on a population with a low pain rating quite a lot, which is appropriate. However, I think the discussion could be shortened and duplication of the same explanations for your findings removed.

4. Please explain why you included participants with pain >0/10. This resulted in people with extremely low levels of pain being included in your study. It is arguable that this is not clinically relevant, and indeed many studies use a higher level of pain (or disability) as a cut-off for inclusion. Therefore, an explanation for this is warranted.

Discretionary revisions

- Refer to research participants as ‘participants’ rather than subject
- Line 95 delete 5 and add ‘s’
- Insert whether or not you used an upper limit cut-off for PPT and if so, state
what the upper limit was.

• Line 129: Spell out PPT in full for headings
• Line 130-145: can you specify the position of the participants
• For the section on dynamic pressure algometry of the forearm, you mention that the participants’ are positioned in supine with palms facing upwards but you test over the extensor muscles; this does not seem accurate. Please specify and amend as appropriate.
• For statistical analyses; please explain why you used parametric tests for most analyses but not for correlation analyses.
• Line 207: Typographical error PTT should be PPT
• Line 257: typographical error
• Line 265: insert ‘this’ after ‘as such’
• Line 268: was this finding relevant in both groups?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests