Reviewer's report

Title: Depression and Anxiety as major determinants of neck pain: a cross-sectional study in general practice

Version: 1 Date: 28 September 2008

Reviewer: Scott Patten

Reviewer's report:

This is a cross-sectional study examining the association between neck pain and several potential determinants of neck pain. Depression and anxiety turn out to be the factors most strongly associated with neck pain.

Major Compulsory Revisions:

1. The study has both strengths and weaknesses. One issue that stands out immediately when one reads the abstract is a discordance between the stated aims and conclusions and the usually accepted limitations of the cross-sectional study designs. The background section of the abstract states that the aim is to determine who might benefit from psychosocial, as opposed to medicinal, therapies. This aim could not possibly be addressed using cross-sectional data from general practice, and in fact the study doesn’t evaluate the effectiveness of different interventions. The conclusions again refer to the efficiency of treatment, which cannot be assessed using this kind of study design.

2. I have some questions about the measures employed in the study. The measure of depression and anxiety is fully appropriate, but the measure of neck pain is described as a measure of disability rather than being a measure of pain. This is an important distinction that needs to be more carefully addressed. Another issue involving measurement is the statement in discussion that inadequate physical activity was associated with neck pain. Elsewhere, it appears that “regular” physical activity was assessed.

3. The argument that the sample is representative of the target population seems weak in view of the low response rate (about 1/3), and there is no discussion of the possibility that selection bias could be introduced as a result of the low response rate. The second paragraph in the discussion section highlights several potential limitations of the study, including the “temporality” issue due to the study design, but the stated limitations appear to have been ignored in the interpretations expressed elsewhere in the paper.

Discretionary Revisions:

4. In my view, the main implications of the study are for further research. Since depression and anxiety are associated with neck pain (or neck pain disability?), it seems possible that depression and anxiety are causing neck pain, or contributing to its persistence and also that neck pain may increase the risk or
decrease the prognosis of depression. Longitudinal studies will be needed to assist with these distinctions. To some extent, such issues are alluded to in the discussion, but this aspect of the paper should be expanded, I believe.

5. Finally, I would reiterate that I think the final conclusions, that people with high levels of depression and anxiety would be better managed with psychosocial interventions cannot possibly be supported by the data presented. At least some rewording seems warranted, in my opinion.

6. I beleive that the word "interact" would be a better choice than the word "interfere" in both instances where this word occurs in the paper.

Scott B Patten

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.