Reviewer's report

Title: Thoracic spine pain in the general population: Prevalence, incidence and associated factors in children, adolescents and adults. A systematic review

Version: 4 Date: 7 April 2009

Reviewer: Sita M Bierma-Zeinstra

Reviewer's report:

I compliment the authors with this review about thoracic spine pain. The thoracic spine pain has received much less attention compared to the lower back pain. The review gives a nice overview about the prevalence of thoracic spine pain for the different definitions and the different age categories.

I have however some comments about the clarity of your manuscript.

Major compulsory revisions:

You describe the prevalence of thoracic pain in the abstract page 2 lines 23-page 3 line 3, but you do not distinguish between age and definition used. To describe your results transparent you have to make this distinction. Readers can get the wrong impression from the abstract. Please rewrite the results in the abstract and make a distinction between definition used and age.

To criticize the quality of the different studies you use the Critical Review Form-Quantitative studies. This appraisal tool has the advantage that it can be used for a variety of study designs, but not all the items evaluate the internal validity of the study. Is this really the best tool to assess the quality of the studies?

You describe the Critical Review Form very extensive, but you do not use the score to evaluate the results of the articles. You only use this score in a few lines of the discussion, page 19. The same goes for the NHMRC Evidence Hierarchy. Maybe you can use this tool to evaluate the results (sensitivity analysis for study quality), or you should describe the tools less extensive.

Table 2 is the main table in your article. It should be the table in which you can see a clear overview of the results, but it is not. The results of 1 article are sometimes described in more then 4 lines. Please re-arrange table 2.

Some suggestions:

- Maybe you can arrange the table by author and describe the definition used in the article.
- If you describe the definition in a column of the table, you do not need subheadings in the table for the different definitions. Only the definitions ‘any backpain’ and ‘pain associated with backpain use’ are used in multiple articles, maybe you can put these articles among each other.
- At the end of each section you give a range of the prevalence. I think that this
range is redundant.

I have the same comment on table 3. You describe the results of 1 article in many lines, which makes the results unclear for the reader.

Further, in table 3 you should describe whether the outcomes were adjusted or non-adjusted for major confounders and whether the relationship is positive or negative.

The design of figure 2 is good. It is nice to see the prevalences according to age-range. However, it is a pity that you cannot see which author belongs to the result. Is there a possibility to do so?

Within this figure 3, the figure of the 3 month prevalence does not add much, because it is only one article. The same goes for the figure of lifetime prevalence. I recommend to delete these two figures.

In figure 2 you can see that 1 month prevalence is much higher in the younger age ranges, but 1 year prevalence is higher in the older age ranges. Do you have an explanation for this result? You should discuss this issue.

Minor Essential Revisions
Reference number 56 should be changed in Musculoskeletal pain in Malaysia: a COPCORD survey.

**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.

**Declaration of competing interests:**

I declare that I have no competing interests