Reviewer’s report

Title: Development of the Young Spine Questionnaire

Version: 1 Date: 12 February 2013

Reviewer: Steven Kamper

Reviewer’s report:

The authors describe the development of a new instrument designed to measure incidence and prevalence of musculoskeletal spinal problems in adolescents. Development of the instrument responds to an apparent gap in the field and will hopefully make a positive contribution to measurement of these conditions. Strengths of the study include; conceptual basis on a theoretical model, the use of an external expert to advise on item structure, the use of innovative methods to assure validity and the iterative approach to development. The authors should be commended on the well-conceived and careful series of studies to date. The manuscript is well-written and clearly structured.

Importantly though, this study should lead to ongoing investigation into the reliability, validity and generalisability of the Young Spine Questionnaire. Despite the strengths of this study, there is much more that needs to be investigated prior to recommending the instrument for widespread use. Most notably the reliability of the instrument has not been established.

Major compulsory revisions

1. Pg 8, Statistical analyses: if the FPS uses a 0-10 scale, perhaps ICC would be better used when assessing the concurrence between FPS and the pain NRS.

2. Pg 11, last sentence paragraph 1; this implies that the sections can be used together, it does not appear that this is the case.

3. Pg 12, paragraph 1; this paragraph reports numerous prevalence figures along with a small note in the final sentence that they should be interpreted with caution. The apparent focus of the paragraph is on the estimates, data which may be potentially misinterpreted or misused by readers. The study was not designed to investigate prevalence. I suggest rewriting the paragraph to focus on the points that a) the prevalence estimates from the questionnaires and interviews were similar, and b) the prevalence estimates of the sample were roughly comparable to other published estimates.

4. Pg 13; it is not clear to me what the purpose of the “Parents’ back pain” section of the questionnaire is. I appreciate that the authors point out the fact that it has been mentioned by other researchers but I miss an explanation as to how it fits with the other sections. Given that the aim of the questionnaire is to measure prevalence and consequences of adolescent back pain this section seems out of place. While measurement of children’s perceptions of their parents’ back pain might be of interest to some researchers, I’m not convinced that such interest
would be widespread enough to justify inclusion in a questionnaire with the stated aim.

5. Pg 14, paragraph 1; the authors correctly make the point that the performance of the questionnaire for measuring change is unknown. I would suggest an extra sentence or two to reinforce this point. My concern is that other researchers may see this as an all-purpose instrument to track incidence/prevalence and burden/disability/pain over time all in one go. The fact is that we don’t know whether the latter is even a coherent construct for these purposes. Clearly the authors of this study realise that the tool is not designed for this, but I would ask that this is made more explicit to readers.

Minor essential revisions
None

Discretionary revisions
None

**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