Reviewer’s report

Title: Risk factors for traumatic and non-traumatic lower limb pain among preadolescents: a population-based study of Finnish schoolchildren

Version: 1 Date: 6 September 2005

Reviewer: Kelly Anthony

Reviewer’s report:

General

The authors pose a well-defined and interesting question related to differentiating risk factors for traumatic versus non-traumatic lower limb pain in children. In the submitted manuscript, the authors adequately describe the study methodology and their conclusions are adequately supported by the data and findings. However there are some issues that the authors should consider to strengthen the contribution of this paper to the existing literature. Some issues raised are also for additional information or clarification. These suggestions are described in the Major Compulsory Revisions and Discretionary Revisions below.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Both in the Abstract and Conclusion sections of the manuscript, the authors should provide some further rationale for their assertion that traumatic and non-traumatic lower limb pains need to be treated separately. Based on their findings, what would be the disadvantages of combining the groups in research or clinical settings? How might combining the groups hurt future research including research examining psychosocial factors related to limb pain, treatment modalities for limb pain, and long-term outcomes of children with limb pain?

2. Figure 2 is confusing in its current form. Do the bars for Ankle-foot, Knee, Thigh, Leg, and Hip represent the % out of the total sample or just the sample of children with lower limb pain? Based on the text, I am assuming that Ankle-foot, Knee, etc. represent categories within Lower Limb. However, this is not clear from the table.

3. Given the title of the paper, the authors should present some more descriptive information comparing children with traumatic versus non-traumatic limb pain throughout the text of the Results section. For example, did these children report pain in the same locations? What types of traumas did children in the traumatic group experience?

4. In Table 1, the authors should consider inserting the t values for each of the comparisons between the traumatic and non-traumatic groups since they do not provide them in the text.

5. Similar to the previous comment, it would be very helpful in Table 2 for the authors to insert additional statistical information (e.g., p values or some indications of which analyses were significant). This would facilitate reading of the article (e.g., reader could know significant results just by looking at the table and would not have to keep referring back to the text).

6. The Results section would benefit from some more qualitative descriptions of the significant findings. For example, on page 12 first paragraph, what is the directionality of the relationships between the variables listed and the risk of lower limb pain? Is it increased depression and fatigue that increase the risk for lower limb pain? This could be more clearly stated in the Results section.

7. The last paragraph in the Results section (page 12), is very confusing with respect to the results of the interaction. Was the significant interaction probed (e.g., graph using the interaction terms) to determine whether the nature of the interaction is as the authors describe? Also what is meant by
“synergistic interaction”? Finally, because the results of the interaction are not presented in the Tables, the authors should provide more statistical information in the text (what is the p-value for? The OR, F-value, t-value?).

8. Why do the authors discuss the significant results for gender for the first time in the Discussion section? This should be presented in the Results section.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. In the Results section of the Abstract, the authors are missing a word in the 1st sentence. I am assuming it should read something like “. . .19% reported school absence attributed to their pain during the previous three-month period.”

2. In the Results section of the Abstract last sentence, the authors should change the word “frequently” to “frequent.”

3. Please insert another line between the 2nd and 3rd paragraphs on page 4.

4. “Enrollment” is misspelled as “enrolment” on page 6.

5. On page 11, in the section Pain interfering with daily activities, the third sentence is missing the word “with.” It should read “Traumatic pain interfered with daily . . . .”

6. On page 12, the first sentence (continued from the previous page) needs to be reworded. “those who with exercise less than 3 times a week” is not clear.

Discretionary Revisions (which the author can choose to ignore)

1. The authors should consider providing definitions of traumatic versus non-traumatic limb pain in the Background section of the manuscript. This would provide some additional information for readers who may be unfamiliar with the various causes of pain. It would also help support the rationale for looking at risk factors that differentiate the two types of limb pain.

2. On page 5, can the authors provide any more specific research findings to support their hypothesis regarding the distinction between non-traumatic and traumatic limb pain? Do results from the studies cited differ at all based on this distinction? Has this distinction ever been examined before? Did the samples in previous studies include both types of lower limb pain?

3. This reviewer was unfamiliar with the Steiner School (page 6). Could the authors provide a brief description of the school that would help clarify why students from this school were not included in the study?

4. In the Materials and Methods section, please clarify whether children completed the survey during school hours.

9. Because the authors describe that information on other pain symptoms was gathered (e.g., neck, back, etc.), they should consider referring the reader to other publications that summarize findings related to those conditions, if they exist.

10. In the Materials and Methods section, please clarify how absence from school was assessed. Were children asked? Were school records reviewed?

11. In the Materials and Methods section, who completed the interviews, hypermobility tests, and shuttle run tests with the children? One of the authors?

12. In the first sentence of the Discussion section, the authors should clarify that the study was only examining pain in the lower extremity.

What next?: Accept after discretionary revisions

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

Quality of written English: Acceptable
Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.