Reviewer’s report

Title: Risk factors for development of non-specific musculoskeletal pain in preteens and early adolescents: A prospective 1-year follow-up study.

Version: 1 Date: 19 March 2007

Reviewer: Charlotte Leboeuf-Yde

Reviewer’s report:

General
This is an interesting article that would benefit from a few changes/improvements.

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

Abstract, background: When you talk of an obvious underlying "cause", I suppose that you mean cause=diagnosis not as an aetiological explanation. Perhaps this should be specified.

You write that ...can be an obstacle for "healthy" educational and social performances. Perhaps the word "successful" is what you intended?

Abstract, methods:
It would be nice to know how many of the 1756 children, who were free of musculoskeletal pain.

I was curious to read that headache, abdominal pain, sadness/feeling down, day-time tiredness, difficulty in falling asleep ..." might predispose to the development of musculoskeletal pain. Predispose? They may occur in children with musculoskeletal problems but do they actually predispose?

Abstract, conclusion: What about vigorous exercise?

Introduction, first para, last sentence: Again "cause". Regardless if you mean cause as in aetiology or in diagnosis, I do not like that sentence. Why the word "although"? Pain is pain, and why would one cause/diagnosis or another have more or less impact on daily living? Abdominal pain could be equally distressing regardless whether it is caused by 2 kilos of prunes or an inflamed appendix. I also do not like the word "usually" as in "usually an obstacle". Where is the proof for that? Your reference 4, by the way, does not seem to be about non-specific pain but about fibromyalgia, and might therefore not be suitable to support your statement,

3rd para, last sentence. You claim that associations in cross-sectional studies cannot be interpreted as causal due to the problem of establishing the temporal relationship. It might be more prudent to write "cannot ALWAYS be interpreted...", as sometimes it can. In fact, often the problem with establishing causality is that other factors indicating cause are not studied although they could have been (such as dose-response and reversibility).

Last para on the same page: "high schoolchildren" as opposed to small schoolchildren? Hyphen between high and school would sort that out.

I think that your literature review could be more thorough and broader in its context. You have for example missed out on genetics (i.e. a biological factor), puberty (probably also a biological factor) and the objective measurement of physical activity (which perhaps explains the varying results in previous studies and could threaten the validity of your own physical activity data).

Methods: I would have liked to see the pain drawing that you used, to learn how you defined the different anatomical areas. When looking at fig.1, I am left uncertain as to what you mean by "chest" and "upper back" for example.

How valid do you think that your self-reported vigorous exercise data were?
2.2 Follow-up
Whether the baseline variable significantly influenced the likelihood of dropout or not is not that relevant. It is more relevant to present the data visually, and let the readers see for themselves if they ACTUALLY did differ or not. A table would be nice.

2.4 Statistical methods, first line. remove the word "the" and add the word "to".

Discussion: First para:
Have the data been shown pertaining to the second sentence or have I gone blind?

Last sentence: You use the plural in "factors" and "symptoms". Were there several of each of these?

Same page, last sentence. You should review your possible risk factors to see how many you consider to be "possibly avoidable" or change your explanation. I would say that almost none of them is. How would you for example avoid age, sex, abdominal pain, sadness, sleeping problems, and hypermobility? ALso I think that many parents would be interested in finding out how you could stop kids from waking up at night.

p.11. thre lines from the bottom, sentence starting "Despite these differences... I have problems understanding what you mean when I get to the end "found in latter adolescent population". Is it just me or did you leave out a word or something?

I do not like reviewers who become all upset because you did not include their own work in your manuscript. However, I think that you should look at Hestbæk et als "is comorbidity in adolescence a predictor for adult low back pain? A prospective study of a young population# in BMC Musculoskeletal Disorders 2006,7:29, because it should interest you and make your discussion more informed.

p.13, 4th line, do correct the typing error in the sentence starting "similar"

Conclusion
Why do you not mention all your major findings, concentrating only on tiredness?

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

Discretionary Revisions (which the author can choose to ignore)

p.13, 2nd para, 3rd sentence. Perhaps add (*data not shown) and if this was a post hoc analysis, you could say that here.

 What next?: Accept after minor essential 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, the manuscript does not need to be seen by a statistician.

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