Reviewer’s report

Title: Prevalence and incidence of musculoskeletal extremity complaints in children and adolescents. A systematic review

Version: 0 Date: 20 Mar 2017

Reviewer: Paul Campbell

Reviewer's report:

Many thanks for the opportunity to review this paper. The authors have produced a systematic review to describe the occurrence of musculoskeletal extremity complaints (MEC) in children and adolescents from both clinical and general population studies. The review outlines the distribution of such complaints by age, mode of onset and anatomical site. This is a well written manuscript, particularly the discussion of the results, and the content of the review would be of interest to the readership at BMC Musculoskeletal. However at present there are parts that are not clear or adequately justified and I feel some improvements could be made to give greater clarity.

Background

There is a need to give greater justification for the focus on MEC, at present it seems an arbitrary selection, and perhaps more might be drawn from the relationship of MEC from physical activity, and the relevance to clinicians?

There also needs to be more explanation for the distinction between traumatic and non-traumatic onset and how this might also be useful within a clinical context for example.

Methods

Traditionally systematic reviews would normally search in more than 2 databases, can the authors justify this potential restriction. Also I note that only one person conducted the title and abstract screening process, usually two or more would be involved?

I wondered about the assessment of quality used in this review. The authors did not apply any weight to "study attrition", however they also report on "incidence" therefore study attrition would be an important component of this? The authors also stated that studies of a longitudinal design were considered as a series of cross sectional studies, can they offer support for this strategy?, an alternative for me would be to mark down cross sectional studies marked as "no" in an attrition category?
More information is needed on how trauma, and non-trauma were defined within this section, maybe some examples from the papers you included would be helpful here.

Discussion

I liked the discussion on the potential reasons for the differences reported (e.g. by age) and the authors highlight the need for more longitudinal studies to unpick these relationships further, however I would have thought of maturation and weight gain are important too and that maybe sports don't necessarily cause, but may also reveal issues in children?

Minor point - on page 13, 3rd paragraph it states "...use of questionnaires is more than usually challenged in this age group..." , it might be better to say "there are challenges with the use of questionnaires within this age group"

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

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