**Reviewer’s report**

**Title:** Key concepts in children’s footwear research: A scoping review focusing on therapeutic footwear

**Version:** 0  **Date:** 12 Dec 2018

**Reviewer:** Stewart Morrison

**Reviewer's report:**

Thank-you for the opportunity to review this manuscript which sought to explore children's footwear research and concepts in therapeutic footwear. The focus of the scoping review was interesting and there will be benefits with this work progressing to publication. Nevertheless, consideration of a number of points is warranted before this.

The background/literature review offers a broad overview [as expected in a scoping review] but this should be aligned with objectives. A clearer direction would help sharpen the rationale for the review. The authors refer to the long-term effects of footwear (lines 54-56). How is this relevant to the objectives? Also, the authors draw on a United Nations report and a UK report about disabilities. The transition between these issues could be clearer. The focus on disabilities is fleeting and (I suspect) the manuscript should convey a stronger focus on this topic...particularly as therapeutic footwear is the focus later in the manuscript. In its current form, the review is so vast it is difficult to determine a clear direction and outcome from the scoping activity.

Some clarification needed about footwear. The authors refer to - 'a component of mechanical intervention...' and 'role as a therapeutic objective. Please explain.

As mentioned, the literature is far reaching but should underpin the objectives more closely. The overall aim covers conventional and therapeutic footwear...why are both needed? This dilutes the focus on both. A more refined focus would help with the detail presented further in the manuscript.

The inclusion of the search terms would be appropriate.

Was there a protocol developed a priori?

Justification for the search strategy is needed - why have the authors included papers since database inception? What impact has this? What was the process for the selection of studies? Who extracted the data? How? What did charting of the studies involve? What process informed the two over-arching themes and eight general groupings? Detail about the emergence of these would be useful.
There needs to be clarity on the terms used. For example - what does developmental effects mean in relation to footwear? The authors cite typical and atypical development. These are undefined and could mean many things. Please explain. Further, the authors revisit growth and development in the discussion (lines 314-318). How is this related to footwear? How was this the largest grouping? What are the authors referring to here? Were non-English [full-text] studies translated?

Similarly, how were definitions about corrective, accommodative and functional footwear formed? Was this before the review commenced, or as a result of the review? Can footwear be corrective in the context of pes planus, lower limb alignment etc?

The n reported don't seem to equate to the articles cited in the text. The authors might want to include a table so that the references being cited are more transparent. The inclusion of dated literature (eg line 165, pg 7) impacts on the robustness of the arguments presented. The authors might want to consider this in their limitations. Clearer alignment of the narrative to the literature (e.g. lines 214 - 216) would be helpful.

The perceived therapeutic role (line 180) - who defined this role?

Review phrasing (line 182) 'atypical development foot deformity...'

Lines 331-335 avoid use of significance.

The ICF re-appears in the discussion but lacks context and application. How does this relate to the findings of the scoping review?

What were the limitations of the scoping review?

Are there implications from this review for research or practice?

What is the basis for the recommendations of the use of the definitions within the conclusion? There is insufficient consideration of this in the discussion. The indication for a further systematic review is unconvincing.

Review referencing to align with journal requirements.

Further to the consideration of the points raised, the authors might want to evaluate their resubmission against the PRISMA-ScR.

**Level of interest**

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal