Reviewer’s report

Title: Effectiveness of therapeutic footwear for children: A systematic review

Version: 1 Date: 03 Apr 2020

Reviewer: Jill Ferrari

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Title: Effectiveness of therapeutic footwear for children: A systematic review

Thank you for asking me to review the further draft of this manuscript. The paper is improved by the alterations made to it.

My comments are mainly corrections that have identified typos / grammatical errors and a few points for clarification.

Abstract

Line 55 - "When using" - not "whilst using"

Line 56 - remove the colon

Line 66-67 - "and that too...." needs to be change for example, "and only in..."

Background

No further changes needed

Methodology
Line 178 - this refers to the eligibility criteria identified in the scoping review. As mentioned by the other reviewer previously, this SR should be able to stand alone and there is still too much referencing back to the scoping review. A reader will not wish to be having to continually access that paper to follow all the procedures so they do need to be stated in this review.

Line 178 - "Abstracts which met the definition of children's therapeutic footwear from the scoping review were screened by two reviewers" - this should not be required as the search strategy for the SR should have picked up these reviews anyway. It would certainly be a useful way to check that your strategy was appropriate, to make sure it picked up papers you already knew, but you shouldn't have had to screen the scoping review papers separately from the SR papers.

Now that I have re-read this, I wonder if you mean that the "definition of children's footwear" was from the scoping review as opposed to the "abstract" screening? - needs clarification either way. Please consider the rest of the paper for over-emphasis on the scoping review.

Line 194 - "2nd" needs to be changed to "second"

Results

Line 222 - change "13" to "Thirteen" - should not start a sentence with a number. Odd rule but the number just looks wrong!

Line 232 - numeral "2" needs to be changed to "two".

Line 232 - there defined footwear groups are still in bold and I am still not sure why this is, particularly as only two of the three groups are in bold. I am not convinced these groups need the defining feature.

Line 267/8 - remove comma after 4 in (Table 4,)

Line 283 - why are there inverted commas around "participants"?
Line 286 - you describe the "wearing in" period here. Is that relevant? I am not sure that you come back to the point in the discussion. If it is relevant then it needs discussion later as this may be potentially influencing the results of these studies compared to others. If it is not discussed later then please remove the comment.

Line 357 - remove the full stop before the reference .[41]

Line 374 - "However, two of the dynamic balance outcomes were seen to improve statistically" - does this mean the outcomes were statistically significant? Just saying "statistically" does not provide any information beyond the numbers showed a change.

Discussion

Line 465 - again the bold font is present.

Line 456 to 479 - these paragraphs tends to report the results and are not discussing the findings. I could perhaps be written to discuss how the quality of the study influence the results - what does it mean for the reader in terms of their practice, should they be using these treatments or not.

Line 470 - refers to the blinding of subjects in the functional footwear group but the problem of lack of blinding would apply to all the footwear groups, so maybe this needs to be in a general section discussing how the study biases may have influenced results - this could pick up on other issues such as the wearing in period that was noted in the methods section.

Line 494 - "Poor quality evidence indicated that instability footwear..." Needs re-wording such as "The evidence indicated that.......but this evidence was of poor quality" - and again it needs a discussion of how the results might have been changed by that poor quality rather than the statement of fact that it was.
Line 533 refers to sexual dymorpism. This needs further explanation as to why this needs to be considered in further studies. What do we know about male / female feet that might make them respond differently to the footwear? The same explanation may be required for height / weight.

Overall, I would like to see much more application of the findings to clinical practice in the discussion.

Limitations

Given my initial concerns over the vague outcome criteria chosen, the limitations have expanded with a single sentence to mention the lack of broad range of outcome measure precluding analysis. Perhaps it warrants a little more than this to consider the lack of validated outcome criteria or consistently defined outcome criteria used in footwear studies which therefore limited the ability to define specific outcome criteria in the SR that could be used for meta-analysis with the review. In the authors reply to my comments they mention the Standard Outcome Sets (ICHOM Standard Sets) so maybe that could be included in the limitations section as it very much confirms the point above.

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