Author’s response to reviews

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

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Author’s response to reviews:

Reviewer reports:

Reviewer #1: I would like to thank the authors for their further consideration of my comments. I can see some response to these and appreciate the time taken. Whilst I don't agree with a number of the responses, I think it is evident that we have different perspectives on this topic (and the approach undertaken). Nevertheless, I think the article is within the scope of the journal and readers will find interest in this work, despite their reluctance to offer some clinical recommendations/highlights. My concerns about aspects of the currency/relevance of the work remain but publication will help support some further debate and scrutiny of the topic.

The authors would like to thank the reviewer for their time in consideration of our paper we appreciate the thoughts in relation to the historical work included in this article however the objectives of the study were not to inform on the use of footwear in clinical practice rather it was to establish the range and scope of work in relation to footwear that had been designed for therapeutic intervention in children and chart the progress of this in perspective to children’s footwear research as a whole. In addition, the work sought to synthesise consistent terminology to define this footwear and as such the review fulfilled these objectives.

Reviewer Comment Line 44 - review the phrase mechanical supportive aids. Would assistive devices be appropriate?

Response: The authors recognise this comment and to clear ambiguity the text has been modified (Ln 44).
Reviewer Comment: Line 46 - 47 - review the accuracy of this statement. This is suggesting that footwear is solely responsible for mitigating ground reaction forces during gait.

Response: This statement has now been modified to clear this ambiguity (Ln 47).

Reviewer Comment: The statement that footwear has been considered a mobility aid for children cites two dated sources. Is this still a common view? Some context would be useful.

Response: This statement was made to recognise that therapeutic footwear had been postulated for a considerable time in the literature, more recent references have been added to example that this is still applicable to current practice (Ln 49).

Reviewer Comment: Line 52. Please review the accuracy of reference 9 (Adolph et al) to support your argument. This study compared the contributions of growing body dimensions, age, and walking experience.

Response: References have been reviewed and adjusted to support this statement (Ln 52).

Reviewer Comment: As requested previously, clearer alignment with the PRISMA-ScR within the manuscript is warranted to help ensure robustness of the process. For example, was any of the review paperwork calibrated?

Response: The review has reported the checklist for PRISMA-ScR (additional file 1). Information has been added on the data extraction form development (Ln 149-151) and confirmation that no quality assessment was performed on the included studies (Ln 155-157).

What does the iterative process mean?

Response: Additional information has been added to the data extraction process on the iterative process (Ln 153-154).

Reviewer Comment: When was the last search undertaken?

Response: The searches were completed on 1 February 2018; this information is included in Ln 141.
Reviewer Comment: You might also want to add a statement about the levels of evidence incorporated into your review.

Response: The types of study and publication included in this review are provided within the methods section (Ln 106-120).

Reviewer Comment: There still needs to be consideration (and addition) of the limitations of the scoping review. For example, the process of screening and review adopted by the authors. Disclosure of limitations is also within the PRISMA-ScR guidelines.

Response: The limitations of the review have been added to the discussion section (Ln 407-413). In addition to improve clarity regarding the screening process that was used the information in Ln 146 of the methods has been updated.

Reviewers Comment: Lines 224-225 (and where appropriate). Review the accuracy of your terms. Pes planus and genu valgum are not examples of "structural congenital conditions". The review needs to be careful to avoid repetition of dated terminology and / or perspectives. The application of references here is dubious and further challenges the relevance of the outcomes. Careful review of these is warranted.

Response: The authors have reviewed the manuscript and have made the relevant changes to reflect current thoughts in relation to developmental skeletal alignment. Lines 65, 229, 231,

Associate Editor

Ln 48: Insert comma: Considering this, it is logical that footwear has been postulated to offer a role as a mobility aid for children with locomotory impairment since the 18th Century [7,8]

Ln 82: Should be past tense and grammar checked. Please consider: A systematic search was undertaken to compile the key concepts pertaining to children’s footwear that is facilitative of daily wear, and activity. It was also performed to highlight any gaps in knowledge whilst considering therapeutic footwear alongside the body of children’s footwear research.

Ln 85: “is” should be "was"

Ln112: "must have" should be with

Ln 147: Data is plural (datum is singular) therefore: Data were

Response: All suggested corrections have been made and underlined within the document.
Additionally, lines 78 – 81 have been modified to improve the readability of the statement.

Reference corrections:

1. Reference is missing place of publication
2. Appears to be a website or PDF - please provide the required additional information
4. Reference title is incomplete
21. Is not ahead in print any more
31. Journal ISI is: Ann Intern Med and not italicised
112. the Leather and Footwear Journal is both shortened to LFJ and the one listed, my apologies, please leave and the editorial office will correct as needed.
141. JAPAN should be Jpn
161. Location of publication needed

Response: All suggested corrections have been made.

Authors Statement: We would like to make you aware that in addition to the revisions we have made to address the comments we have made the following corrections to additional file 3:

1) Study design nomenclature has been corrected from Cross Over study to Before-and-after study.

2) The Subgroupings within Protective Role (Infection, Environmental, Functional,) and Risk Factor Injury/Pathology (Dermatology, Injury, Infection) have been added.