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: Thank-you to the authors for their resubmission of this manuscript. There has been some consideration of the comments from the initial review and I can see some clarification within the text. I’d like to propose that the authors take some time to consider a few further points listed below. There is some repetition as these pick up on some of the issues from the first review. I have struggled to fully appreciate the process and the outcomes from the scoping activity and ask the authors for a further, careful consideration of the manuscript.

Response: The authors would like to thank the reviewer for their comments. We hope that further modifications made to the manuscript fully convey the purpose and results of this scoping review.

Reviewer-1 I appreciate that the title has been adjusted in response to reviewer 2 but it seems that the review expands beyond therapeutic footwear (as also indicated within the background). Are the authors confident the title accurately reflects their study?

Response: After the initial review, the title was adjusted to acknowledge the paper as a scoping review. We think that the new title does reflect the work in an appropriate manner as it covers both children’s footwear research in general and the specific focus on therapeutic footwear.

Reviewer 1- It was requested that the background more closely aligned with the intention of the scoping review. The focus of the study is therapeutic footwear but there is little consideration of
this in the introduction. There needs to be clearer alignment between the intention of the scoping review and the rationale for doing this work.

Response: The introduction has been adjusted to reflect the focus of the review in terms of therapeutic footwear and the purpose for considering this alongside the full body of children’s footwear research; being the lack of specific terminology to define this footwear and to showcase the progress of this work in comparison to children’s footwear research.

Reviewer 1 I think it would be useful to ensure that the application of therapeutic footwear is clear - how does this this apply to children with flat feet (lines 66 - 69)? What aids walking and limb development? It would be prudent to ensure that the applications of therapeutic footwear are consistent (e.g. again, is this the case for pes planus) and credible. This needs to apply through the review. There should be some attempt to define therapeutic footwear earlier to avoid confusion and mis-interpretation.

Response: Some detail has been added to the introduction on the modifications of footwear that had thought to have an impact on children’s gait and the skeletal development of the foot. From this therapeutic footwear was loosely defined in the introduction (line 62-64). However, it was the intention of the review to synthesise the available evidence to derive consistent terminology to define this footwear, and this information is presented in the results and discussion sections. If children’s therapeutic footwear was clearly defined in the introduction it would negate one of the objectives of the scoping study. Regarding the query about the applications of therapeutic footwear, e.g. for pes planus, it was not the intention of the scoping review to evaluate the quality of the research therefore it cannot support or refute the findings of the studies included.

Reviewer 1 Is pes planus a mobility disorder (line 256)? The credibility of the clinical application is important, and this picks up on my previous comment about the historical perspective represented in the scoping review. The historical perspective weakens the currency of the findings (as briefly indicated by the authors within the manuscript). For example, are navicular cookies (I have never used this phrase or heard this phrase used) still a common intervention? Are approaches for toe walking (from 1988) still relevant? I appreciate that the authors want to include this historical perspective but there needs to be some consideration of the impact. If the aim of the scoping review was a historic perspective of treatment interventions, then I could well appreciate the inclusion of these studies. Clarification would be useful.

Response: The authors appreciate the comment in relation to pes planus being referred to as a mobility disorder, however this has appeared as a regular topic within research and clinical manuscripts from both a functional and a corrective perspective. Pes Planus is still a consideration in recent literature dealing with therapeutic footwear (Abd Elkader, Abd Elhafz, &
Al-Abdulrazaq, 2013; Aboutorabi et al., 2014; Kanathli et al., 2016; Pandey et al., 2013). As the reviewer highlights, the older papers reflect the outdated view that pes planus in isolation was a concern requiring skeletal correction. This has now been reflected in the discussion as the shift in the literature from corrective towards functional footwear (lines 381-384). Approaches from 1988 may indeed be dated however this paper was included in a recent review on idiopathic toe walking (Williams, Tinley, & Rawicki, 2014) and to exclude it in the current review would be to limit the scope of this study. The authors are not concerned with the use of the term “Navicular Cookies”. One can still find the use of this terminology in clinical literature and it is difficult to speculate if this is still a common intervention or terminology. In addition, a recent study on orthotic prescription (C. Nester et al., 2017; C. J. Nester et al., 2018) indicates that there is significant disparity in health professional practice with podiatry playing a relatively limited role in footwear prescription therefore terminology may share a similar variation.

The authors would like to highlight that the purpose of this paper is not to impact on day to day clinical practice but to summate available literature which will lead to the categorisation of therapeutic footwear. Within the text the authors provide no specific recommendations for clinical interventions.

Reviewer 1-If the authors are intending to cover 'all aspects' of childhood development, there should be some consideration of this within the text. What does it mean and are the authors confident that footwear indicated for all these purposes?

Response: The authors are not able to fully appreciate and understand this comment. The authors are not indicating that therapeutic footwear is a solution to all issues relating to childhood development. The text within the manuscript is now reviewed and the authors are happy with what it reflects.

Reviewer 1-Line 111 child development/health are not inter-changeable.

Response: Text now adjusted line 118-120

Reviewer 1-Line 150 Please clarify what the charting process and topical research groups means. How were these groups formed?

Response: This was performed using textual narrative synthesis as defined by Kastner et al. (2012) and Lucas et al. ( 2007) line 147-150. The underlying commonality of the characteristics of the papers in the charted groups is detailed in each section of the results.
Reviewer 1-Justification for the addition of literature where footwear is an adjunct to foot orthoses would be useful. It could be argued that this skews the focus of the scoping activity.

Response: These studies were included as they assessed footwear on their own (without the orthoses) and therefore provide relevant information pertinent to this scoping review. The text has now modified to reflect this line 109-110.

Reviewer 1 - It is not clear if full-text of the submissions considered...or just abstracts. Please clarify.

Response: Data was extracted from the abstracts; this is clarified in the methodology section line 147.

Reviewer 1-It is still not clear what the n refer to. Are these the number of studies? For example, the protective role of footwear (lines 312) has n=30 for infection. What is this for? There are 4 studies cited.

Response: n= number of papers from included studies. Whilst there were 30 papers in the group for the protective role of footwear against infection, to maintain the readability of the paper, the authors have included a short list to example these studies instead of all papers. The reader is directed towards additional file 3 (Line 157-158) for a full list of these references.

Associate Editor review:

I would urge the authors to clearly read the manuscript. There are a number of grammar issues, awkward or very long sentences that distract from the message.

Response- Thank you for your observation, grammar, punctuation and sentence structure have now been reviewed.

Associate Editor-For example:

Lns 38-40. Suggestion to change to: The foot is a complex multi-segmented structure that is required to perform a sequence of tasks during walking. These tasks include....etc

Response- Sentence now removed from the manuscript.
As children are still growing and developing, their feet demonstrate differing structural and functional characteristics in comparison to adult feet. These differences.....

Response-Sentence modified.

Consider removing repetition of the aim.

The repetition of the aim has now been moved from the discussion.

Consideration of levels of headings. Please see the Biomed Central layout of articles and use only 4 levels of headings. Here is the link: https://jfootankleres.biomedcentral.com/submission-guidelines/preparing-your-manuscript#preparing+main+manuscript+text

Headings reviewed in document and formatted appropriately. No further level of headings below 4.

Shifting Figure titles to the end of the manuscript rather than within the text.

Figure titles now removed from manuscript and added to the end of the manuscript. Suggested position of figures remain within the text.

Keywords - please check that these are MeSH terms i.e.: Footwear is not a current MeSH term.

Keywords now changed to appropriate MeSH headings

Correcting all references with an et al where there is 7 or more authors. If there is 6, all should be cited.

Referencing has now been modified to meet the journal style.
Associate Editor- Correcting the following references to the journal format style
21, 29, 111, 116

Response- Due to manuscript adjustments these references are now numbered 23,31,112, and 117 in the revised manuscript.

Reference 23 - Bmj now corrected to BMJ
Reference 117 adjusted to remove epub information and to include doi only.

Apologies but it is unclear to us how the references 31 and 112 are not meeting the journals format style, could you please provide more information.

Associate Editor- Consider Figure 3 - ending line gives the appearance there are more. Consider finishing it after the last box.

Response-Figure 3 has now been adjusted.

References


