Author's response to reviews

Title: An evaluation of seasonal variations in footwear worn by adults with inflammatory arthritis: a cross-sectional observational study using a web-based survey

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Author's response to reviews: see over
Dear Editors

Re: Research Article MS: 1232127092131198 - An evaluation of seasonal variations in footwear worn by adults with inflammatory arthritis: a cross-sectional observational study using a web-based survey

I am writing in response to the reviewers’ comments for the above submission. To follow are my responses to the comments:

Response to reviewer’s report
Anita Williams
Thank you for your comments and suggestions for the improvement of the manuscript. To follow are our responses.

Comment 1:
Background – line 3 spelling – should read ‘systemic’ not systematic. Link the last two sentences of the first paragraph after (3) to Previous studies – perhaps insert ‘…despite…’

Response:
1. Systematic changed to systemic.

2. Last two sentences linked as suggested.

Comment 2:
Methods – 2nd line insert ‘were’ between who and identified. I think there needs to be some discussion around the potential bias (adding to discussion section) in relation to the respondents being those who can access emails – perhaps some discussion around alternative methods of recruitment ie directly through clinical sites or through a paper version being available to those who wish to participate. Your sample was therefore a convenience sample of the whole population. How were questions for the survey formulated? This needs adding to the methods (was it consensus of experts for instance?)
This also applies to the results in table 4 as it would be useful to know where these questions have come from – needs adding to method to ensure credibility. How was the data transferred from survey monkey to SPSS? And why was this needed when you only used descriptive statistics? Did you intend to do correlations and associations?

Response:
1. ‘were’ added in second line between who and identified.
2. The authors acknowledge that access to email / computer / internet may potentially bias the study outcomes. We have added an additional comment to the end of the discussion.

*The survey was only available electronically thus excluding those without access to a computer or internet connection. Therefore the results may not be representative of the wider population with inflammatory arthritis in New Zealand.*

3. Acknowledgement of convenience sample included in methods.

*Participants were a convenience sample of adults who were identified as having inflammatory arthritis.*

4. The survey questions were formulated by all co-authors and previous evidence. We have added the following comment into the manuscript:

*The survey was developed and subject to pilot testing by all co-authors to ensure the relevance of the questions, and the final questionnaire was amended according to feedback. Three iterative revisions were conducted by the research team and these were based upon previous research [20], clinical experience, and current foot care recommendations [13-15].*

5. The results shown in Table 4 are for the questions which came from a previous study. This is included in the methods sections under *Survey Development* with reference to the study which they were obtained from (Hendry et al 2013).

*Question 17 was designed according to statements obtained from a previous study of people with rheumatoid arthritis in order to determine respondents’ previous experiences of footwear [20].*

6. Yes, the data was initially entered into SPSS to enable future analysis of correlations and associations. The data was manually inputted into SPSS by GB.

Comment 3:
Discussion – if you were to do the study again would you include questions related to temperature/heat/breathability? The fact that participants chose sandals in the summer is no surprise. However, the lack of use of the therapeutic footwear and the use of slippers needs commenting on in relation to falls. Sandals can be supportive and you mention this in your conclusion. A recommendation could be that manufacturers of both retail and high street footwear need to consider good designs that have either a method of fixing foot orthoses inside or that have an orthotic element (arch support / wedged heel). Also you need to add what is crucial to practice – what would a clinician do differently after reading your paper?

Response:
1. In the current study, statement 2 and 5 (shown in table 4) addressed the issue of temperature/heat/breathability. As the majority of respondents agreed with these statements we would consider exploring this issue in future studies.
2. The lack of use of the therapeutic footwear has been addressed in paragraph 2 of the discussion. We have not added comment relating to slippers and falls as the focus of the manuscript is seasonal variations in footwear habits not falls risk factors.

3. High quality, supportive and orthotic friendly sandals are already available in NZ. However, it is possible that patients do not know about them or cannot afford them. We have touched in this point in the current manuscript and we are also currently working on a Qualitative manuscript from the same study which addresses this issue.

4. Comment regarding what clinicians need do differently added into conclusion.

"Healthcare professionals should be aware of seasonal variations in footwear worn by people with inflammatory arthritis and assist their patients in accessing appropriate footwear to reduce non-adherence".

Comment 4:
Conclusion – 4th sentence – people choose sandals to accommodate forefoot pain, impairment and disability should read...‘accommodate forefoot deformity and associated pain’ However although heat is a major factor it is not mentioned and needs to be commented on.
References
12 is incomplete
28 not a reference (move the hyperlink to method)
Table 1 – systemic scleroderma – change to systemic sclerosis
Table 2 – under the therapeutic shoe where participants report ‘never’ change to N/A

Response:
1. 4th sentence amended

2. Comment on heat added to discussion and conclusion.

The majority of respondents also agreed with statements regarding the feet overheating in closed-in footwear during the summer. The provision of publically funded therapeutic sandals and education regarding the availability of high quality, supportive, commercially available sandals, may be warranted.

The popularity of sandals may also be due to feet getting hot in closed-in footwear and education is needed regarding the availability of high quality orthotic-friendly sandals.

3. Ref 12 amended.

4. Ref 28 – hyperlink moved to methods.

5. Table 1 - amended as suggested.

6. Table 2- We believe that changing ‘never’ to N/A does not accurately reflect the data we have conducted.
Response to reviewer’s report
Annette Davis

Thank you for your comments and suggestions for the improvement of the manuscript. To follow are our responses.

1. In the abstract, the sentence “Accessing appropriate footwear has been identified as a major barrier relating to adherence”. The term adherence needs contextualising. Adherence to what exactly?

Response:
Sentence amended to contextualise the term adherence.

“Accessing appropriate footwear has been identified as a major barrier resulting in poor adherence to treatment plans involving prescribed footwear.”

2. At the end of the abstract, “non-adherence” to what please? (see point 1.)

Response:
Last sentence amended to “…to reduce non-adherence to prescribed footwear”.

3. Background, Paragraph 2 Podiatrists are “extended” members of the team. Not sure what this means. Could you please re-word?

Response:
The words “or extended” removed.

4. Background, Paragraph 2 adherence (see point 1)

Response:
Sentence amended:

Appropriate footwear for people with inflammatory arthritis has been identified as a major barrier relating to adherence to treatment plans involving prescribed footwear.

5. Background, Last paragraph. “The aim was to survey seasonal variations in footwear habits of people with inflammatory arthritic conditions in New Zealand.” This sentence is confusing and requires re-writing please, particularly surveying seasonal variations rather than participants.

Response:
Sentence amended:

The aim was to survey footwear habits of people with inflammatory arthritic conditions in New Zealand and to identify any seasonal variation.
6. Demographics & Clinical characteristics – The survey respondents were predominantly European females. Do you mean “of European decent”? The term European could be interpreted as European born.

Response:
Sentence amended:

The survey respondents were predominantly females of European descent...

7. Discussion – adherence and non-adherence without context (see point 1)

Response:
We have reviewed the use of the terms “adherence and non-adherence” in the discussion and believe that the meaning is clear in light of the earlier revisions which contextualise the term adherence. No amendments made.

8. Table 2: Type of footwear worn by respondents - Please describe what a “Jandal” is?

Response:
Jandals are the NZ equivalent of flip-flops (or thongs in Australia). We have amended the term to Jandals/Flip-flops in Table 2.

Discretionary Revisions

9. In the abstract there is reference to the Summer months. As NZ is in the southern hemisphere it may be prudent to say “southern hemisphere summer” or reference the summer months.

Response:
Thank you for the observation. We have changed the sentence to the summer months in New Zealand.

10. Background, Paragraph 2 Please add “and” between skin/nail. They are different entities and the use of the forward slash is not appropriate.

Response:
Amended to “skin and nail”

11. Conclusion – sentence 3 “We found” Re-word please. Best not to use pronouns.

Response:
Deleted the words “We found that…”

Yours sincerely

Angela Brenton-Rule
Corresponding Author