Author’s response to reviews

Title: Predictors of adherence to wearing therapeutic footwear among people with diabetes

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Version: 1 Date: 03 Jul 2020

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In addition to the adjustments described below, the language editor suggested minor changes of text, which are also highlighted in the manuscript.

Reviewer reports:

Reviewer #1: None

Reviewer #2:

Background

1. The background lacks detail and is somewhat dismissive of previous related work. Authors appear to have based the background section on a review that is now four years old. Authors should take some time to update their search of the contemporary literature and provide readers with an up-to-date more comprehensive critique on what is currently known about factors affecting footwear adherence.

Authors: We agree and thank the reviewer for pointing this out. We have now added more details on previous work (p. 5, line 37-43) and updated the search, finding one more observational study.

Materials and Methods
The response rate was relatively high for a postal survey. The demographic profile appears reflective of the survey population.

The size of the data set.

Validity

2. Authors have touched upon the design of the research tool and the coverage of questions.

i) Some additional explanation of the Health Belief Model would be welcome.

Authors: we have now added a short description of the HBM in the context of the study and added some more details regarding the items of the questionnaire (p.6, line 56-68).

ii) Authors should also provide the reader with a little more insight into how the original tool was developed and psychometrically tested.

Authors: We have now added a little more details on the tool development (p.6, line 67-8) and added lack of psychometric testing to the study limitations (p. 14, line 246-7).

iii) To enhance the robustness of the article, a short section is also needed specifically addressing issues of content validity, reliability and respondent acceptability.

Authors: Although the most of the items came from validated questionnaires, we cannot know if the final questionnaire had content validity and acceptable psychometric properties. We have now acknowledged this as a study limitation (p. 14, line 246-7).

Sampling

3. The sampling strategy is a little unclear to me.

i) Please could authors clarify what sampling technique was employed eg random sampling or did the questionnaire go out to all patients receiving shoes from both centres during the sampling period? How were people who had moved from the area managed, did they have follow on addresses?

Authors: We have now clarified that the questionnaire was mailed to all patients who fulfilled the criteria to be included in the study (p. 6, line 71-2). As the patient administration systems update addresses from the official Swedish population register, unknown addresses were not a problem.
ii) What consideration did the authors give to mitigate sampling error?

Authors: The study had a large sample size, which is the main approach to mitigate sampling error. However, future studies should be conducted in other countries to take potential cultural differences in consideration. We have now added a statement on this (p. 14, line 242-3).

Sample Size

4. There is missing information around sample size that should be added or addressed. For example, what was the optimal sample size for this survey? Was a sample size calculation performed? What was the estimated non response rate? How did the actual response rate compare?

Authors: The optimal sample size was not calculated to guide the data collection. If accepting a type-1 error of 0.05 and a power of 80%, a moderate effect size (Cohen’s f2) of 0.15 with 5 independent variables would require 91 participants, which is much less than our sample. However, as this sample size calculation is conducted after data were collected, we prefer to not include it in the article.

Results

5. In order to make a judgement around sampling error it is really important that researchers pay some attention to the non-responders.

i) Authors should present data on the demographics of those who did not reply to the questionnaire. Data such as age, gender, illness or health care would provide useful insight into a large portion of the sample population who may also be non-adherent to wearing footwear.

Authors: We only have data for age and sex of the non-responders, and have now added a comparison with the responders (p.7, line 80-2, p.8, line 110-4).

ii) There appears to be a gender bias in the sample. Please could authors acknowledge this finding and provide a rational for its occurrence.

Authors: We have now added a comment on this (p. 12, line 182-4).

Discussion

6. The discussion is generally well written and appropriate.
i) Some discussion must be included about the potential difference between respondents and non-respondents and any implications this may have on the results and generalisability of the findings to the larger population.

Authors: We found no difference in terms of sex and age between respondents and non-respondents, but we agree that other things may have differed and have added this to the study limitations (p. 14, 244-5).

ii) The authors are encouraged to give a little more attention to how their results fit within the context of other similar work. For example what are the common factors for none adherence across studies? How does the variance of adherence for these key factors differ between studies and why?

Authors: We have now tried to elaborate a bit more on the similarities and differences between the results of our study and other studies. (p. 12, line 177-9).