Reviewer’s report

Title: Foot orthoses for people with rheumatoid arthritis: a survey of prescription habits among podiatrists

Version: 0 Date: 06 Aug 2018

Reviewer: Gordon Hendry

Reviewer’s report:

I’d like to thank the authors for the opportunity to review this well-written manuscript in an important area. The study is a bolt-on to a parent survey in order to focus specifically on eliciting information on prescription habits for people with rheumatoid arthritis, an important area which has been significantly under-researched. There is some room for improvement and I have provided my review and suggestions for revision point-by-point below.

Major revisions

1. Response rate. The total sample size is reported but the response rate is not. The nature of the recruitment approach would have made it very difficult for the study team to robustly calculate a response rate. If one cannot be provided or estimated, it should probably be acknowledged in the limitations section of the discussion.

2. Discussion, limitation section: non-response bias. There should be some acknowledgement of sources of bias such as non-response bias which are a major inherent issue in surveys. Additionally, this is a survey of perceptions of prescription habits for RA overall as opposed to actual prescription habits which could have been evaluated via audit/records review, and so should probably have an acknowledgement of recall bias as well.

3. Use of "more likely", "twice as likely" etc throughout results, discussion and conclusion. The survey is cross-sectional in nature and reports perceptions of prescription habits at a single point in time, not actual prescription habits. Perhaps more caution in the language such as "Respondents reported/perceived that they would be more likely to prescribe...." would be more suitable here.

4. A key limitation is that the survey assumes a single typical presentation of an RA patient which we know is not an accurate assumption. The survey would have benefited from presenting specific complaints seen in clinical practice and asking how respondents would address these with orthotic therapy. The authors mention this briefly in the limitations section in response to free-text comments, however I think this should be more explicit and with greater emphasis. This limitation significantly reduces the value of the findings because they do not sufficiently cover patient-level variations in presentations of disease-related foot impairments.
5. Use of "prescription patterns". The authors report perceptions of prescription habits, not actual patterns that have been measured/observed. Please amend throughout.

6. Omission of additional features from survey? Additional features are often added to custom and prefab devices such as 1st ray cut-outs, met bars, met domes, met raises etc for patients with RA. These are considered important and relevant by many clinicians who would add such additions to their FOs prescriptions. It seems they have either been omitted from the survey or data not reported. Can the authors please clarify and add address in the limitations section as required?

7. This review is somewhat limited in that the survey tool/questions have not been provided for appraisal, but have been referred to in the parent survey which has not yet been published. I would recommend that as a minimum, a copy of the survey should be provided as supplementary material.

8. An important limitation appears to be the focus on prefab FO brands as opposed to specific models and their specifications. The use of the brand name instead of the specific features such as material density again limits the value of the results. More pertinent to clinicians would be specific FO model design features which have theoretically valid modes of action rather than brand names. The results focusing on clinician preference for specific brands without focusing on specific FO models with features to address specific foot complaints in the RA population does not seem to have very much clinical utility.

9. Discussion, limitations section, lines 49-57. "Finally, the wording....". Was the RA component of the survey piloted? If so, how? Please provide details.

10. Discussion, future research section, 1st paragraph, line 10-11. "Several participants indicated...". Could the free text comments be analysed qualitatively or at least presented as supplementary material?

11. Discussion, future research section, 2nd paragraph, lines 35-39. "...benchmark their practice against..." I'd be more cautious here. There is little to suggest that these prescription habits are representative of the correct approach to orthotic therapy for RA, and you've already stated that the sample may not be representative given the small sample size/low response rate. Similar cautious language for final sentence of same paragraph: "ensuring these studies are relevant to clinical practice". The results should only be used with cautious interpretation in light of the study limitations to describe the status quo. The term "benchmarking" is perhaps loaded in the sense that it might suggest that these are the recommended approaches.

Minor revisions

1. Background, 1st paragraph lines 9-16. Authors provide comment on overall economic impact of RA which lacks relevance. Can figures concerning FOs costs be provided/estimated?
2. Background, 2nd paragraph, lines 39-43. "The foot is more amenable…" - this sentence is not necessarily supported by the literature cited. More cautious language required here. Earlier intervention is conceptually appealing but there is little evidence of improved long-term outcome in terms of reducing joint damage/deformity as a result of FOs.

3. Background, 2nd paragraph, line 46. What do the authors mean by "clinical response"? Should this be foot pain / disability reduction? More specificity required here.

4. Background 3rd paragraph line 52. "FOs vary broadly…" Completely agree. This is also confounded more with the availability of additive features such as dome pads, met raises etc.

5. Background, 4th paragraph, line 17-18. "Timely". Use of "timely" here seems contradictory in the context of the sentence ("over a period of several weeks….which delays initiation of therapy").

6. Background, 5th paragraph, line 33-36. "Some prefabricated FOs can…" - this comes across as a little biased in favour of prefabs. Perhaps a more balanced account which highlights the perceived negatives/ positives of both types of devices should be presented to demonstrate equipoise.

7. Results, Prefab FOs, "valid response". What was the definition of a valid response and how were invalid responses handled? i.e. excluded?

8. Discussion, 2nd paragraph, lines 55-56. Can the authors expand upon the statement concerning health systems? What are the key differences between health care systems that would impact on FOs habits?

9. Discussion, 3rd paragraph, line 2-7. "In contrast…" - The statement "in contrast" is a little confusing as presented. It seems a strange comparison with the previous sentence. Can this be re-phrased?

10. Discussion 3rd paragraph, final sentence line 12-20. This sentence is confusing and hard to follow. Can this be re-phrased?

11. Discussion, 5th paragraph, line 48. "brands and models". I’m not sure the results sufficiently cover the models of prefab FO (see major revision number 8). Also line 57-59: brands and models appear to be used interchangeably - i.e. "Slimflex", which is a brand which covers several different models of prefab FO.

12. Discussion, limitations section, line 20. "How was survey response rate calculated?"

13. Discussion, limitations section, line 27-33. "How were inconsistent responses handled?"

14. Conclusion, "in line with current guidelines". I'm not sure that the guidelines have much specificity with regards to FOs prescriptions. Simply people with RA should have access to them as required. Which guidelines does this statement refer to?
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