Author’s response to reviews

Title: Can the Pain Attitudes and Beliefs Scale be adapted for use in the context of osteoarthritis with general practitioners and physiotherapists?

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Author’s response to reviews:

To: The Editor BMC Rheumatology

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Title: Can the Pain Attitudes and Beliefs Scale be adapted for use in the context of osteoarthritis with general practitioners and physiotherapists?

(Previous title: Exploring the utility of the Pain Attitudes and Beliefs Scale with general practitioners and physiotherapists in the context of osteoarthritis: a cross-sectional observational study)

Thank you for considering our manuscript and for the thoughtful comments from both of the Cornelia van Den Ende and Katie Druce. As per their suggestions, we have reframed the primary focus of the paper (including changing the title). Apologies as it became impractical to use track changes to document amendments because of the sheer number of changes to the article.
We believe the changes significantly improve the clarity of the paper, and we hope the reviewers agree. Furthermore, we have attempted to address all of the reviewers’ comments to the best of our abilities, and I have detailed responses to the reviewers’ comment below in red.

Kind regards / Ngā mihi,

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Review 1 (Cornelia van Den Ende) - Concerns:

1. It is not very clear what is meant by “utility”? This concept should explicitly be clarified. Agreed. Hence, we have removed the word from the title and the text. We now focus on testing the questionnaire in the context of OA.

2. One of the implicit research questions is to assess differences between professions. The relevance of this exercise should be substantiated and implications should be discussed. Agreed, so we have removed this focus from the paper. We amended Table 1, and it no longer shows the stats testing the difference between professions. Additionally, the results and discussion sections have been revised to reflect this change.

3. Authors put a lot of effort in describing differences in characteristics between GPs and physiotherapist, for example location of qualification, employment setting. For me, it is not clear to what extent and in what direction these characteristics potentially explain differences between professions. See response to comment 2 above.
4. An important psychometric quality of questionnaires is validity. Authors did not address this important aspect; as osteoarthritis and low back pain are different conditions, validity cannot be assumed. This is an excellent point. We did test the adapted questionnaire for face validity with three clinicians but appreciate that further testing was not undertaken. We agree with the reviewer’s comment that LBP and OA are different conditions. However, research suggests that there are similarities in clinicians’ perception of the two conditions, i.e. having a focus on biomedical/biomechanical approach versus a biopsychosocial one (See Darlow et al., 2012; Hunter, 2011, 2017). Additionally, other authors have already begun using the PABS in this context (See Briggs et al., 2019). We believe that if the questionnaire is to be used in the context of OA in the future, it needs further development.

5. One of the findings of the current study is that the internal consistency of the behavioural subscale is insufficient. Yet, the authors make inferences about the behavioural scale, that seems not very… I think there is some text missing here, but I think you are referring to the inconsistency between the statement about the internal consistency and the comment about clinicians’ belief being more biopsychosocially orientated. We agree and have removed this statement.

6. L 262 and further: "This study suggested that a new condition-specific questionnaire is needed to assess clinicians' osteoarthritis-related health, illness and treatment beliefs. …" What are the arguments for this conclusion? We have amended the argument to indicate that the behavioural subscale could include additional items in an attempt to improve internal consistency and have altered the discussion, which will hopefully link better to the new concluding statement.

Review two (Katie Druce) - Concerns:

Overall comment: I'm really confused about the messages in this paper. I make specific comments below, but I feel like it should be greatly overhauled. Please consider the impact you want this paper to have and re-frame your messages accordingly. Agreed, thanks for your comments. The fundamental problem arose as this manuscript was constructed from a larger piece of work which attempted to address several questions. We have restructured and re-written a significant amount of the paper, so hopefully, it is better focused on the suitability of the questionnaire for use in the context of OA.
Abstract

1. I am a bit confused by the end of the abstract about whether this is about the point of this is. The start of the abstract seems to be about treatment choices, but it feels like at the end of it that it's not about that at all. See changes to the introduction and conclusion of the abstract.

2. Page 2, line 30 - will people know what is meant by "conservative treatments"? I am not sure what this would entail. See addition in sentence for clarification.

3. Page 2, line 32 - by clinician's who do you mean? I assume this group is distinct from the GPs and physios you mention subsequently. Unless the point is that GP/physio beliefs (as clinicians) are important because they influence the use of conservative treatment? I think this could be made clearer. Please see changes to lines 32-34.

4. Page 2, line 37 - is a biomedical approach, opposed to biopsychosocial, more likely to mean conservative treatments are used, or vice versa? If not, I am not sure why you make that distinction. This sentence has been removed as part of the overall restructure of the paper.

Introduction

5. I feel again like this introduction is a lot about treatment decisions, but actually treatment decisions don't seem to feature in the study which has been conducted. This has been restructured in places to highlight why measuring GP and Physio beliefs is important and to highlight the need to test the measure.

6. Page 4 line 77-78 - is reference 24 specifically relevant here - i.e. does it state that they offer less conservative advice to patients? What beliefs are known about it this work, as you next state that little is known? See overall changes to the introduction.

7. I feel like it is only the latter section of the introduction, where you focus on clinician perceptions of illness that is relevant. See overall changes to the introduction.

8. Page 4 line 94-100 - I'm not sure you've fully explained the need to validate this questionnaire. If it was shown to work how would it change anything? See changes to lines 95-103.

9. Page 5 line 101-102 - Is there any way you can show impact of these different beliefs? Did you have any info about treatment choices? This sentence has been removed as part of refocusing the study.
Methods

10. Page 5 line 117 - you are now describing the questionnaire as being about treatment choices, but before it seemed to be about the perception of OA as a biomedical or biopsychosocial entity. Can you please make it clear from the outset what this scale is actually measuring? We have removed the word “treatment” to improve clarity. See line 119.

11. Page 6 line 131-132 - I don't understand how the example questions refer to treatment of OA, rather than cause of OA? This sentence was removed as part of restructuring the focus of the paper.

12. Page 7 line 167-168 - is it more accurate to describe this as confirmatory factor analysis, as you have restricted this to replicate previous work? I am happy to be guided by the reviewers on this point, we debated this term among the research team. I have added a sentence about the Scree test (line 165) as we did not initially limit the solution to two factors (sorry for this omission in the first draft).

13. Page 8 line 178-179 - does this statement imply that people did not give consent for data sharing, or secondary analysis? How reasonable is it to assume that if people completed a questionnaire for one purpose (the bigger study) they are happy for it to be used for another? See changes to lines 177-181. Hopefully, this is clearer. This is not a secondary analysis, it is just that the project was too large to report in one paper.

14. Page 8 line 185 - does "drop out" mean people who started but didn't finish the questionnaire? Can you compare between these people and the people who did complete it? See change to line 187.

15. Page 8 line 185 - 186 - why do you list the proportions separately when the data are presented at the start of the section (when you list who took part)? See change to line 185.

16. Page 8 line 186 - please indicate how many males and females - I shouldn't have to go to the table to find this if it is a relevant piece of info. See change to line 188.

17. Page 8 line 188-196 - as above. Please provide the data to support these points. These sentences were removed as part of refocusing the study.

18. Page 11 line 184-185 - what does it mean when you say the data were suitable? Is it the following sentence? If so the punctuation or ordering is wrong. See clarification of this sentence. Additionally, this is defined in the methods section.

19. Page 11 line 187-188 - similarly how was the two-factor structure supported? See clarification in lines 188-190.
20. Page 11 line 190-191 - how is it that these factors did not load? You said that loadings of 0.45 or greater were needed, but these two loaded at 0.45 or greater and did not load? Please indicate their actual loadings. See amended lines 192-194.

Discussion:

21. Page 14 line 197-200 - can we conclude anything about which type of belief is more endorsed if the scale is not valid?? This sentence has been removed as part of the refocusing of the paper.

22. Page 14 line 202-209 - you’ve said this merits discussion, but I am not clear what you are trying to emphasize? This sentence has been removed as part of the refocusing of the paper.

23. Page 14 line 210-218 - again, can we infer anything about the scale results if it doesn't work in that population? This sentence has been removed as part of the refocusing of the paper.

24. Page 15 line 221-227 - if you know the scale doesn't perform well as a two-factor solution, why haven't you tried to identify other factor solutions in this population? See earlier reference to the scree test.

25. Page 16 line 263-265 - I am not sure this is a helpful conclusion. If you believe it is beyond the scope of a questionnaire, then why have you tried to use this one? What message am I really supposed to draw from this? The conclusion has been re-written and now hopefully better reflects the main aim of the study.

26. Page 16 line 268-270 - You've just told me we probably can't assess clinician beliefs! The conclusion has been re-written and now hopefully better reflects the main aim of the study.

References

