Reviewer’s report

Title: Use and perceived added value of patient-reported measurement instruments by physiotherapists treating acute low back pain; A survey study among Dutch physiotherapists

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Reviewer: Carolyn Berryman

Reviewer's report:

Review for BMC Musculoskeletal Disorders

BMSD-D-19-01421

Thankyou for the opportunity to review this manuscript. The authors have used a self-report survey to investigate physiotherapist's current daily use of prognostic screening tools in patients with low back pain; why they use them, how they use them, whether they alter decision making or are associated with therapist characteristics.
Overall comments:

Overall the manuscript is well written. The intention of the survey seems to have been to answer questions about Physiotherapists' perspectives of prognostic screening tool use. The survey, however, actually questions the participants about all types of questionnaire use. The authors then conclude that most therapists use a variety of tools during invention with people with low back pain and often don't use SBT as a prognostic screening tool, but as an evaluation of treatment effect and rarely do any tools influence clinical decision making. The final statement in the conclusion is intriguing however as it states that measurement instrument usage should be more standardised and uniform among therapists. This reader is having a hard time linking the final statement to the survey answers, for it seems a variety of tools are used because one doesn't do the job, therefore standardising would not be useful with the current crop of tools? It might be more accurate to conclude that designing a new tool is necessary if we wish to improve predictive accuracy and therapist uptake and standardisation? The validation of a predictive model needs to be the first step in this process, because as prognostic screening tools, there is not one available that has been developed using this rigorous process and as such not one that performs particularly well (please see PROGRESS recommendations Hingorani, Windt et at (2013) BMJ 346 e5793). At present many factors that may affect outcomes are not considered in prognostic tools and this may limit their predictive accuracy. In future research in tool design it would seem prudent to consider factors such as genetic factors, sleep, social situation, early life stress, plasticity capacity. We have yet to fully characterise the strengths and weaknesses of the current tools as alluded to in the current manuscript and others (Karran et al 2017 BMC Med 19, for example), but is research time and effort well spent there or in developing tools with better predictive accuracy? Or even - being the devil's advocate - is there another way of using resources wisely than trying to design a prognostic tool for a complex and unpredictable disorder?

Would the authors like to consider these comments in relation to their discussion and conclusion. There seems to be an opening in this manuscript to consider the use of tools in this area more deeply?

Major comments:

Title:

Would the authors please consider removing the (prognostic) word in the title as the majority of questionnaires reported and investigated are not prognostic screening tools.
Introduction

Would the authors please consider establishing the rationale for looking at physiotherapist characteristics - are you expecting more input or use from females/males, what were the reasons you chose to include characteristics? Is there no research to guide this?

Methods.

Analysis

There is no report of study power. Was a power calculation completed prior to study?

Backward, stepwise method of logistic regression is defensible when used in situations where no previous research exists. Would the authors please make it clear in the introduction that there is no research that has associated physiotherapists characteristics with use of tools to evaluate treatment or predict prognosis?

Did the authors use a crosstab table to ensure that there were data from all combinations of the variables or check that standard errors were not overly large after the median split?

A lot of data are lost when median split is used and this may have affected the outcomes of the association between physiotherapist characteristics with measurement instrument? Perhaps the authors would consider mentioning this in the limitations section?

The additional regression that was done using SBT use was not planned for in the study design. Could the authors please justify their sample size in respect to this additional regression?

Discussion/Limitations

Did the authors have any thoughts as to why male gender may have been the only characteristic for which there was an association of using a large number of tools?

Minor

References

Could you please check the format of references 21 and 35 - seem to be justified?
Tables

Table 4 - could the authors please explain why the e-health affinity blank row is included in the table given the table heading?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Nil

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