Reviewer’s report

Title: Universal goniometer and electro-goniometer intra-examiner reliability in measuring the knee range of motion during active knee extension test in patients with chronic low back pain with short hamstring muscle

Version: 0 Date: 22 Sep 2018

Reviewer: John Dixon

Reviewer's report:

I thank the authors for submitting this manuscript which I enjoyed reading and which contains some interesting data. However I believe some work is needed before it could be accepted for publication. I see 3 major, but easily resolvable, issues.

1) Because this data has been collected as part of an RCT there are 3 groups of participants who receive different interventions. But there is absolutely no need for 3 groups in this reliability study. The data should be pooled into 1 group - this would give far greater power and precision to answer the research question well.

2) The time point(s) of measurement should be clarified to make it clearer if this was before or after the intervention. In reality the intervention trial does not need mentioning in this reliability study. It is irrelevant.

3) The study only includes an analysis of relative reliability (ICC). An analysis of absolute reliability needs carrying out also (e.g. by SEM or Bland & Altman methods) to give results in measurement units. This is easily done. Assessment of relative reliability tells us very little in isolation.

There is also some lack of clarity in places in the writing and the authors should re-check the manuscript for grammar and accuracy of statements made. As an example of accuracy check Ref 4 in para 1 of the Intro. This needs checking throughout.
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

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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