Reviewer's report

Title: No pain no gain: critical features of peer assessment to improve adherence to clinical practice guidelines in physical therapy: a mixed methods design

Version: 2 Date: 24 June 2015

Reviewer: Marie B Corkery

Reviewer's report:

- Major Compulsory Revisions

1. Is the question posed by the authors well defined?
   This is an interesting study and the question posed by the authors is well defined.

2. Are the methods appropriate and well described?
   The methods are overall well described, I have the following feedback on clarification of the methods.
   - The updated clinical practice guidelines that were followed (line 162-163) should be fully cited and referenced, as there are a number of different clinical practice guidelines on low back pain (LBP).
   - It would be helpful to have some additional information on how the external coaches were selected and what their qualifications were.
   - Please clarify if participants in the simulated patient role receive any training other than “Short written simulation instructions”, and did they provide any clinical feedback or simulate patient responses?
   - It would be helpful to describe how the clinical cases were developed? Were they specific to Low Back Pain (LBP) or did they include other system involvement or red flags.

3. Are the data sound?
   In the results section it would be helpful to have more information on characteristics of the participants such as: years of experience, frequency of patients with LBP in caseload, manual therapy or specialized qualifications. This would help with generalizability of results and identification of who benefits from peer assessment.

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?
   Yes

5. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes

6. Are the discussion and conclusions well balanced and adequately supported by the data?
7. Are limitations of the work clearly stated?

I think using peers as patients should be listed as a limitation of the study, since not it does not allow for complete assessment of clinical performance improvement. For example, therapist clinical reasoning or performance based on patient response, cannot be fully assessed using peers to simulate patients.

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

Reference 35, should be fully cited in the bibliography and in Box 1. Trial Design.

9. Do the title and abstract accurately convey what has been found?

The abstract adequately conveys the information. However, I believe the title of the study does not adequately convey its purpose. I would suggest rewording the title to specify LBP guidelines and the fact that clinical performance was assessed, in addition to adherence to clinical guidelines.

10. Is the writing acceptable?

The writing is acceptable.

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

-In the introduction, lines 79-82 regarding clinical practice guidelines could be consolidated and more concise, since the main focus of this study is related to the impact of peer assessment on clinical performance.

- Methods: was any additional training received by participants or discussion of procedures other than reading the peer assessment training manual?

-There were a number of grammatical errors or sentence structure errors found as follows:
  Line 50: the phrase “to motivate their choices” is not clear
  Line 408: the phrase “rather discussed” needs rewording

References 1 and 7 are not in English, are there English versions of these available?

Spelling errors were found in references 11 and 17.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests.