Reviewer’s report

Title: Association between sensory function and medio-lateral knee position during functional tasks in patients with anterior cruciate ligament injury

Version: 3  Date: 5 November 2014

Reviewer: Chris Whatman

Reviewer’s report:

Thanks to the authors for their replies and the careful consideration of my comments. I still have a few additional comments/concerns below.

Major compulsory revisions:

I appreciate the authors have consulted a statistician, which I am not, but I would still like them to check/justify the following analyses.

1. Interrater agreement for ratings made on a 3 point scale (as you have made for your knee ratings) is most commonly reported using a kappa coefficient – I’m not sure your use of an ICC is appropriate, please check/justify.

2. I’m surprised at the use of the Mann Whitney test to compare medio-lateral knee position between men and women. My understanding of Mann Whitney is that it is used for analysis of continuous variables that are not normally distributed. Please check again that you have used an appropriate statistical test given medio-lateral knee position is a categorical variable.

Minor essential revisions:

1. What does “KOPF” stand for, this needs defining – I read it as “Knee over foot position” but that should be “KOFP”.

2. Line 210-211, the mean differences stated should be negative as in Table 6.

3. If the TDPM set up picture is to be included it will obviously need a caption.

Discretionary revisions

1. Although I did ask for rater reliability the inclusion of a new table to report this isn’t needed – it obviously wasn’t a key aim of the study and the added clarity provided in the methods stating how the ratings used in the analysis were consensus ratings means the reliability is less important - these can just be reported in the text with the method, e.g. interrater reliability ranged from x to x.

2. Contrary to the authors statistical advice providing confidence limits for a correlation I believe is increasingly common and very useful to readers, however readers can calculate these easily themselves if they wish.

3. Your results section doesn’t include anything on the magnitude of the correlations which is disappointing as this is the key to their interpretation in a practical sense (your paper is aimed at clinicians) – and the uncertainty in this interpretation would be conveyed by the confidence interval. I would recommend
including a proposed scale for interpreting correlation magnitudes in your statistical analysis (e.g. “The magnitudes of these correlations were described as trivial (0.0-0.1), small (0.1-0.3), moderate (0.3-0.5), large (0.5-0.7), very large (0.7-0.9), or extremely large (0.9-1.0) (Hopkins, Marshall, Batterham, & Hanin, 2009)”. You do suggest they are mostly moderate in the discussion but there is no justification given for this interpretation and it should be in the results and then discussion.

4. For added clarity I would again suggest you stick to 2 decimal places for correlations – scales for interpreting magnitude of correlations do not include more than 1 or 2 decimal places and thus the extra precision has no practical meaning and simply reduces clarity for the reader.

5. Table 6 is very difficult to follow – may benefit from an alternate format.

6. In the second paragraph of the discussion the calculation of 40 and 50% worse kinesthesia is nice to see as it looks at the interpretation of the actual magnitude of the difference rather than just the p value, however it is a vague way of interpreting the magnitude of the difference – an effect size calculation would be far more common and meaningful.

7. Discussion paragraph 4, line 5 – “The possible association…..” suggest edit to delete possible and substitute for a magnitude term e.g. “small”, “moderate” as appropriate.

Reference:

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests