Reviewer's report

Title: Reliability of isometric subtalar pronator and supinator strength testing

Version: 3  Date: 28 November 2014

Reviewer: Kade Paterson

Reviewer's report:

Overall I feel the authors have done a good job in responding to the feedback. Thank you for addressing each of the concerns and for your work in making these changes. I commend you for your efforts. Unfortunately I still have a few issues which I have outlined below.

Major compulsory revisions:
1. The authors have still referred to "variability" when describing reliability in the statistical analysis.
2. There appears to be some confusion regarding the purpose of the study, which the authors state is to determine the reliability of pronator and supinator strength and muscle activity. The hypothesis, methods, results and discussion read as though the purpose is to examine whether FB improves reliability. This needs to be consistent throughout the manuscript.
3. Following on from that, a hypothesis based on the purpose of the study is also needed.
4. Please state what the dependent variables are in each of the measurements sections within the Methods (as you have with PT).
5. There is no data presented on the purpose of the study, only data related to improvements with feedback.
6. Presumably EMG was measured during the pronatory task and used in the analysis? This may also have affected results given you were assessing supinators. Could this be re-analysed using only the supination data?
7. I still have some minor issues with some of the points in various parts of the manuscript. e.g. Background, 2nd para: different outcomes can be due to a multitude of different variables with EMG, some errors, some not; Statistical analysis, 3rd para: what was this increase from? an intervention? Results: no data on the purpose of the study; Discussion, end of 2nd para: pulling the foot up would be supination, so you expect these MDC and LoA values would be lower; 5th para: speculations should be investigated; 6th para: "It should be acknowledged that variations..." and "...foot axes have been ...."; 7th para: Your findings technically really only apply if someone has your machine. You could change this para however and focus on feedback - this is more translatable; 8th para: I would remove the sentence about the tester being aware.

Minor essential revisions:
8. I am curious as to why MDC and RMSE are used for reliability. Although they have many limitations, ICCs are widely used and well understood, as are SEMs and CVs. These also have established criteria for judging whether reliability is acceptable or not.

9. On a related matter, I am still not convinced of your criteria for acceptable reliability. LoAs of 40% still seems very high to me.

10. Again, there are still many typographic errors (extra full stops, inappropriate capitalisation and comma use, misspelling, spaces between numbers and the % sign, use of "e.g." etc).

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

**Quality of written English:** Needs some language corrections before being published

**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