Reviewer’s report

Title: Reliability, construct and discriminative validity of clinical testing in subjects with and without chronic neck pain

Version: 3 Date: 11 October 2014

Reviewer: David Walton

Reviewer’s report:

Congratulations to the authors on a job well-done with this revision. My comments below are discretionary only, I feel confident that the authors and associate editor can address these without requiring further review.

Pg. 5, line 111: I get the point, but I would argue PPT at least is a psychophysical measure with a high degree of subjectivity (i.e. is this painful or not?), so might want to soften this statement a bit.

Pg. 10 Line 229: In order for construct validity to be interpretable, you should provide some a priori estimates of magnitude (strong, moderate, weak, none) and direction (positive, negative) as hypotheses, then you can relate back to those hypotheses in the results/discussion to indicate whether they were supported by the data.

Pg. 11 Line 267: Remove the word 'significantly' since this isn't an inferential test. I might suggest something like "...the mean differences between cases and controls fell within the respective MDC on all tests."

Pg. 12 Line 292 and others: The first sentence under each of the test subheadings in your discussion is fairly redundant with what was presented in the results so could be removed for readability. E.g., here you could start with 'This is the first study to examine the reliability of...'

Pg. 13, Line 318: I appreciate the test descriptions in the Appendix, but I still feel that the main text of the manuscript should stand on its own. The description of the laser as 'behind the subject' vs. 'attached to the head' is not clear (until I saw your picture I thought 'behind the subject' meant the laser was attached to the head but projecting backwards rather than forwards). Any way to revise this slightly so that it's more clear the laser device was separate from the subject, measuring distance between point a (presumably the laser) and point b, which appears to be on a headband but I can't tell exactly what it is.

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