Reviewer's report

Title: Cross-cultural adaptation of the Neck Disability Index and the Copenhagen Neck Functional Disability Scale for patients with neck pain due to degenerative and discopathic disorders: a validation study of the Polish versions.

Version: 1 Date: 30 January 2011

Reviewer: Leonardo Costa

Reviewer's report:

Title:
The title needs to reflect the main objectives (or findings) of the study, although the authors tested the validity, reliability and internal consistency of the instruments, they only state the validity in the title, my suggestion is to say “clinimetric properties/measurement properties or psychometric properties” instead of “validation study”.

Abstract:
Please present the 95% confidence intervals for the reliability estimates, 3 decimal places is too much, please reduce them to two decimal places. Change 0.870 p<0.001 to 0.87 p<0.001 (i.e. replace the comma to a dot). Conclusions should state all properties, not only reliability and validity.

Introduction:
• Page 3, last row: change “its' function” to “its function”
• Page 4, second row: “such as the SF-36” needs a reference... also some people might not know what SF-36 means.
• Page 4: I did not understand what the sentence “widely applied methods in research to indigenous conditions” means.
• Page 4: “Polish-speaking patients with neck pain has ever been validated.” Same comment as the title applies here, “validate” is only one of the tests that the authors performed, ideally would be “measurement properties” or something similar. Please fix this over the manuscript (for example, for the objectives of the study).

Methods:
• “We performed an assessment of the test-retest reliability using the Pearson correlation coefficient”. Pearson's correlation coefficients are inadequate statistics to generate reliability estimates, the authors should calculate Intraclass Correlation Coefficients (type 2,1) instead. There are many statistics guidelines suggesting against the use of Pearson’s r for reliability estimates. Please change it to ICCs and present the 95% confidence intervals for the ICCs.
• Please justify the 24-hour interval for the test-retest reliability.

• Please change “criterion-validity” to construct validity. Criterion validity are just applicable for comparisons against a gold-standard, which does not exist for neck disability. (see Terwee et al 2007 for details)1

• Please explain the sentence “The Spearman's rank correlation coefficient (rS) was used to determine dependency between quantitative characteristics. The Mann-Whitney test was applied to determine dependency between quantitative and qualitative characteristics”.

• The authors state that patients received treatment, so they might have answer the questionnaires after the intervention. If this is true, they could calculate the responsiveness of the measures. This would make a more powerful study.

• Page 7: change melopathy to myelopathy.

• Page 7, last paragraph: there is a lot of redundancy as most of the information is already presented in table 1.

• Validity: the authors should state their hypothesis for the correlations that they expected to observed prior to the study commencement. They have also to compare that hypothesis with the actual results in the results section.

Results

• The authors calculated ceiling and floor effects, but did not mention this in the methods/stats sections, please clarify this.

• Ceiling and floor effects, the authors should state that no ceiling/floor effects were detected as less than 15% got the minimum/maximum possible scores.

• Again, re-calculate the test-retest reliability replacing the Pearsons’ r to ICCs (and 95% CI).

• Please comment about table 6.

Discussion

• “Our study indicated that NDI-PL and CDS-PL are valid and reliable methods for measuring disability in Polish patients with neck pain.” The authors can only claim that the measures are valid if the hypothesis were confirmed.

Tables

• Table 1: the SD for the variable “Neck pain intensity after 2 days (VAS), (mm)” seems wrong (i.e. 227).


Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

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

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