Reviewer's report

**Title:** A systematic review of measures in shoulder pain using the International Classification of Functioning, Disability and Health

**Version:** 1  **Date:** 29 November 2012

**Reviewer:** Felix Angst

**Reviewer's report:**

Positive criticism

This article reports an analysis of the ICF domains of the most important shoulder outcome measurement instruments that are covered in their construct and content.

The article is of moderate to high importance in its field.

Specific positive issues are:

1. The text is very well written, concise, and the explained content is easy to comprehend. In particular: The ICF concept, p.6,7.
2. The most important literature has been selected and used, especially by refs 1-23.
3. The review has been very well performed and its strategy is well documented.
4. By that, the most important outcome instruments are covered.

Major compulsory revisions

1. As you reviewed assessment of pain and pain-related consequences, as limitation, disability, interference with pain etc. I suggest to add “function” in the title: “… in shoulder pain and function …” because your reviewed also all functional categories and items and pain and function are closely linked to each other.

2. As newest and most important overview and rating of shoulder outcomes, the following reference has to be added and its content has to be implemented:

   Angst F, Schwyzer HK, Aeschlimann A, Simmen BR, Goldhahn J. Measures of adult shoulder function: Disabilities of the Arm, Shoulder, and Hand Questionnaire (DASH) and Its Short Version (QuickDASH), Shoulder Pain and Disability Index (SPADI), American Shoulder and Elbow Surgeons (ASES) Society Standardized Shoulder Assessment Form, Constant (Murley) Score (CS), Simple Shoulder Test (SST), Oxford Shoulder Score (OSS), Shoulder Disability Questionnaire (SDQ), and Western Ontario Shoulder Instability Index (WOSI). In: Katz PP. Patient outcomes in rheumatology, 2011. A review of measures. Arthritis Care Res (Hoboken) 2011;63 Suppl 11:S174-88.
3. To attain the aim of the study, it is crucial to overview the ICF content of the instruments. In Tables 3 and 4, the ICF abbreviations have to be explained by 1-2 words although it will be difficult due to the lack of space in the tables.

Example:

b1: Mental functions. The abbreviations as b1 etc. give not sufficient information.

Minor essential revisions

4. Abstract, conclusion: “The considerable differences in the type ... demonstrate the difficulty facing both clinicians and researchers ...”

I doubt 1. whether this is the most important take home message of your study and 2. whether this is really due to a gap of interests. I would revise the conclusion and give a positive (rather than a negative) statement, for example a recommendation for use of certain instruments.

5. Results, Fig 1: Explain the total n=2469 citations. It is unclear how this n results out of the other numbers.

6. The discussion is good but rather long and could be shortened somewhat.

7. Discussion p.16: “Testing muscle endurance, ... but so far these functions have not been incorporated in the measures...”. Muscle strength is measured by the Constant Score: Please explain and correct.

8. Discussion, p.17: “Although the SF-36 contains a social function scale, it does not include any interpersonal functions according to the ICF”. This is not clear, please explain further. I agree that the SF-36 ask about difficulties of social contacts in a general way but, for example, in the item 32 it is explained: “like visiting friends, relatives...”. This would, e.g., match to ICF d760, d9205, e310, e315, e320.

9. Discussion, several locations: comparison of shoulder pain to low back pain. Please explain that low back pain is much more likely to show a chronic course together with spread of symptoms and psycho-social symptoms/consequences than shoulder pain. This affects/influences direct comparison of pain and pain-related consequences in these two regions.

10. Discussion, p.19, bottom: “To make the assessments of shoulder pain more comprehensive ... condition-specific and a generic...”. This is or rather should be (!!) a very important part of the discussion of your paper. It could be improved by more concrete recommendations how to use which instrument. E.g., consider the ref. of item 2 above. Show up the practical consequences, importance for the reader, for clinical practice and research. Shortly: make your conclusion sexier!

Discretionary revisions

none
Level of interest: An article of importance in its field

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