Author's response to reviews

Title: The clinimetric qualities of patient-assessed instruments for measuring chronic ankle instability: A systematic review.

Authors:

Christophe JK Eechaute (christophe.eechaute@belgacom.net)
Peter H Vaes (pvaes@vub.ac.be)
Lieve Van Aerschot (lievevanaerschot@hotmail.com)
Sara Asman (asmansara@hotmail.com)
William Duquet (wduquet@vub.ac.be)

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Author's response to reviews: see over
To Deborah Saltman, MD, PhD

Editorial Director of BMC Musculoskeletal Disorders

Concerning: Revision MS: 4713273281114682. The clinimetric qualities of patient-assessed instruments for measuring chronic ankle instability: A systematic review.

Christophe JK Eechaute, Peter H Vaes, Lieve Van Aerschot, Sara Asman and William Duquet

Dear Mrs,

We first want to thank you and the reviewers for the valuable and interesting comments. Based on these comments, major parts of the manuscript have been rewritten and table and figures have been changed. To explain the context of the study, text has been added to the background section of the abstract and the manuscript. For the convenience of each reviewer, a revised manuscript with underlined text related to their specific comments has been added to the cover letter containing point-by-point answers. The page numbers mentioned in our answers to their remarks refer to the new version of the text.

We looking forward to your comments on the revised manuscript and hope that you consider it for publication.

Sincerely yours,

Drs. Christophe Eechaute

The Physical Therapy Department

The Vrije Universiteit Brussel

Brussels

Belgium
Answers to comments of reviewer J.H.

First, we want to thank you for your valuable and interesting comments on our manuscript. Based on these comments we majorly revised the text. For your convenience, the corrections regarding your comments have been underlined throughout the text. The page numbers mentioned in our answers to your remarks refer to the new version of the text. You find the manuscript with the underlined text related to your comments on the pages following the point-by-point answers.

Major compulsory revisions:
Page 8: Following your request, we added the FAAM as a fourth instrument. Indeed, in the study of Martin et al, (2005) content validity, internal consistency, MDC (minimal detectable change), MCID (minimal clinical important difference) and construct validity have been established for the FADI, renamed FAAM. These clinimetric properties of the FAAM have been studied in a mixed patient population with a variety of foot and ankle problems. In a certain way, we have to be aware that these findings do not necessarily pertain to a specific patient population with chronic ankle instability. The results of its clinimetric properties are described and discussed in the text.

See underlined text on pages 8 up to 17 (“results” section and “discussion” section).

Minor revisions:
Page 4: the * next to a search term is a truncation mark used during the search. It indicates that the database will search all terms that begin with the word spelled before this truncation mark.

This has been added in the legend of figure 1.

Page 9: Means and standard deviations of pre- and post scores of the AJFAT were indeed presented. The effect size has been calculated and reported in the “results” section.

See paragraph 3 on page 11, paragraph 4 on page 15 and paragraph 1 on page 16. and “discussion” section.
Answers to comments of reviewer CVDE.

First, we want to thank you for your valuable and interesting comments on our manuscript. Based on these comments we majorly revised the text. Based on the comments of another reviewer, an updated version of the FADI named FAAM (the Foot and Ankle Diability Measure) is included and discussed in the text. For your convenience, the corrections regarding your comments have been underlined throughout the text. The page numbers mentioned in our answers to your remarks refer to the new version of the text.

You find the manuscript with the underlined text related to your comments on the pages following the point-by-point answers.

1. Indeed, reviews related to foot and ankle problems were already published in literature. We had not mentioned them in the background section because these reviews were related to other foot and ankle problems than chronic ankle instability or because they were not conducted as described by the guidelines of systematic reviews. Guidelines for systematic review advise to conduct a literature search of at least the MEDLINE Database and the EMBASE Database. Button et al (2004) only screened the literature that was published in the American and British Editions of the “Journal of Bone and Joint Surgery” and the journal “Foot and Ankle International”. Authors should also report how many articles (or instruments) were eligible and how many were excluded. Haywood et al (2003) did not report how many instruments were excluded. For instance, it remains unclear if the FAOS (the Functional Ankle Outcome Score; Roos, 2001) was not identified or if it was excluded. On your request we discussed and argued in the background section how these reviews differ from ours. We also emphasized the relevance of studying patient-assessed instruments.

See background section in abstract, paragraph 2 and 3 on page 3 and see page 4

2. The reporting of the number of articles on the one hand and the number of selected instruments on the other hand may have been confusing. Also, the selection procedure of eligible instruments was not clearly written. However, the selection procedure has been conducted extensively and thoroughly as described by the guidelines for systematic reviews. As you mentioned, many outcome measures for evaluating patients with foot and ankle problems are described in literature. However many of these instruments not related to chronic ankle instability, as these are global, regional, or specific to other foot and ankle problems. We particularly were interested in patient-assessed instruments designed for chronic ankle instability. Based upon the selection on title or abstract, 17 instruments were identified comprising 39 articles. Indeed, many of these articles concerned clinical trials or follow-up studies. The full text version of these 39 articles was extensively studied to decide whether a measure met the criteria as described.

For the search strategy, we followed the guidelines for systematic reviews. These guidelines advocate selecting first on title and abstract. As the search strategy was directly related to research question(s) we may expect that all relevant instruments were identified. Possible deficits in the search strategy were anticipated by screening the references of the 41 articles and relevant reviews (Button et al, 2005; Haywood et al 2004; Pijnenburg, 2000; Mann et al, 2002).
In a last step, the specific name of eligible instruments and authors were used for an additional search to identify supplementary instruments. The additional searches however did not reveal other eligible instruments.

Following your request we have tried to clarify in a more detailed way the selection procedure.

See paragraph 2 (“methods” section) on page 5 and page 7. Also, please look at the modified flow diagram on figure 2.

3. Our explanation of the exclusion criteria was maybe misleading. We have added information concerning the procedure. The full text version of all measures had been retrieved. For this reason no instruments were excluded. The paragraph related to the exclusion of instruments was rewritten.

See paragraph 2 and 3 on page 7.

4. The observation that patient-assessed instruments were only used in few studies may indicate that research mostly focusses on the application of clinician-related measures and that the implementation of patient-assessed instruments is not well incorporated yet in clinical research.

Comments on the few number of eligible instruments are included in the “discussion” section.

See paragraph 4 on page 13.

5. Indeed, several articles were identified in different databases. However, it has been shown that the overlap between the MEDLINE Database and the EMBASE Database is small (van Tulder et al, 2003; Suarez-Almazor et al, 2000). On your request, we deleted the specific numbers and reported only the total number of identified articles.

See modified flow diagram on figure 2.


According to your comment, the selection procedure is explained in a more detailed way. Text in the “methods section” and the “results section” has been adapted to this comment. See paragraph 2 (“methods” section) on page 5 and page 7.