Reviewer's report

Title: Exploratory factor analysis of the Dizziness Handicap Inventory (German version)

Version: 1 Date: 28 January 2010

Reviewer: Johan Holmberg

Reviewer's report:

This work deals with the factor structure of the German version of the DHI. A division into three factors are related to ICF categories, level of disability, limitation of daily activity and results of the HAD. A different factor structure to the original one is proposed.

General comment

Minor Essential Revisions

The development of good measures for dizzy symptoms in different languages is an important issue as I see it primarily in order to evaluate treatment effects. From my point of view the possibility to use this kind of questionnaire for a diagnostic purpose or as a guideline for treatment without a parallel clinical investigation is limited. I therefore suggest that the clinical purpose of this instrument and especially the subscales is made clearer.

I wonder also what the clinical objective is to validate it to the ICF. As the factors described are validated to the ICF terminology theory considering ICF labels is lacking. I think that the description of the DHI and the original subscale structure should be paid more attention to in the background part.

I can not find satisfactory description of how the linking was made between ICF label and different factors. It is referred to clinical experience and I do not find that convincing (se page 11).

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4. In what way does the DHI fit well with the ICF?


5. Retained factors refer to what

5. How were patients medically investigated?

6. The data collection was continued … What does this mean?

Data analysis - general comment.

I have not the competence to evaluate the statistics of this work in a satisfactory
way. However I wonder if the statistics could be explained in a manner easier to overview for readers like me. For example:

7. First sentence. What descriptive statistics? Example?
7. The Determinant has to be > 0.00001 and Bartlett’s test highly significant (p < 0.001).
This sentence referring to previous sentence get confusing.
7. ..PCA…. Using abbreviations does not make it easier to understand.
7. With communalities in the 0.5 range, samples between 100 and 200 can be good enough.
Samples of what? What range?
7. No more than 50% of the residuals should be greater than 0.05.
According to who or what?
7. Values < 0.25 were considered to indicate…..
I suppose “values” refers to correlation coefficient from previous sentence. In order to make it easier to read change values to coefficient.

8. What were the distribution of vestibular disorders?
8,9. KMO and F7 are also examples of abbreviations that hinders flow in reading. I suggest when referring to specific items of the DHI instead write for example E15 (afraid of appearing intoxicated) throughout the manuscript.
9. I question if figure 1. adds much information.

10. Item E15, ‘afraid of appearing intoxicated’, demonstrates that the potential thoughts of observer may become as important as the consequences of postural instability for one’s own safety.
Confusing sentence - seems speculative to me.

11. I question clinical experience as a source of information valid to make categorizations from. Also from my clinical experience this conclusion is not always correct. For example difficulties leaving home alone are one of core symptoms of agoraphobia. What is meant by walking ability? There is no possibility from available data to make conclusion considering walking ability.
I wonder if the labeling of factors should be handled in the discussion part.

11. What is the purpose of additional tables? Why are they not included in the manuscript.

12. Why was the three factor solution more reliable? It is probably clear from a statistic point of view but to me the four factor solution make more sense.
12. What objective of the DHI was supported?

12. Last sentence first paragraph. This becomes speculative. There is no data considering walking ability and there is no scientific evidence considering the effect or methods applied by different professions. According to what is written in general comment I doubt that this kind of questionnaire is valid to make such generalizations. And again this highlights the question of what the clinical purpose of subscales is.

12. Especially the 3-factor solutions show parallels

Parallels to what?

13. Please check if conclusion from reference 27 about Menieres disease is correct.

15. Spelling of solution.

Yours sincerely

Johan Holmberg

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: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.