Reviewer's report

Title: The grounded psychometric development and initial validation of the Health Literacy Questionnaire (HLQ)

Version: 2 Date: 11 March 2013

Reviewer: Henrica C de Vet

Reviewer's report:

General:
This is an extensive report of the development of the Health Literacy Questionnaire. The paper is well written, explaining the different steps that were made in the development process. Although this makes the manuscript quite lengthy, it is also the strength of this paper. The authors use sound methods to develop a questionnaire and this paper is an educative example for the readers on how to develop questionnaires in a scientific valid way using up to date methods.

Abstract
1. In the abstract (conclusion) it is suggested that the measurement instrument assesses health literacy needs.

Introduction:
2. In the abstract it is stated that the authors sought to develop a comprehensive measure of health literacy capable of diagnosing health literacy needs ...” In section 3.2.1 they use the terms health literacy capacity. By describing the goals and applications of the instrument it may become clear whether they want to measure the health literacy ‘status’, and use it for an evaluative purposes, or whether the instrument is primarily meant to assess individuals health literacy needs or the capacities. These are all slightly different constructs. The paragraph in the discussion on the applications may be informative and helpful if it is positioned in the introduction. This might also clarify the requirements for the items as discussed in the last section of the introduction.

Methods
These are very well described.
3. It is informative to mention the seeding statements in the Methods section. This enhances the understanding why the constructs do or don’t fit within the definition.

4. Did the sentinel themes results from the analyses or were they introduced by the researchers themselves?

5. The critical RMSEA value 0.06 is mentioned here, while in the results section the value 0.05 is mentioned.
Results
It is nice to have first a description of the content of the items and constructs, followed by the results of the quantitative analysis, and then again followed by an interpretation involving the content of the items/constructs.

6. The Tables are not in accordance with the text. It seems that it are not the latest tables or texts that are included. E.g. I could not find part A and B see section 4.2). And probably the constructs are numbered differently in the end. Moreover, I count 56 items instead of 0.56.
The range of factor loadings are all different.
7. The constructs Cognitive barriers and Understanding and Critical appraisal had much overlap and were combined. However, the first construct belonged to the theme “being resourced” and the second one to the them “About one-self” Is it possible to combine both and what is the resulting theme?

Discussion
8. I miss a remark on the very low response (13.7%) of the 3000 people. Do the authors have any data or any idea on whether this was a very selective sample?
9. Does this instrument apply to Western countries, and also to developing countries. Note that one of the persons who reviewed the items had experience in “indigenous health and development”. The number of health illiterate persons will be lower. Will the instrument be able to distinguish between low and very low health literacy?
10. In the third section the authors state that the scales cover a broad range of issues pertinent to an individual’s life and reflect both intrinsic and extrinsic dimensions of health a) and b). Do these correspond in one way or another to the three overarching themes that were mentioned previously. Isn’t it confusing to introduce another classification in the discussion?
11. I suggest to remove the section of the application of the HLQ from the discussion to the introduction.
12. Does the omission of some constructs require an adaptation of the definition of health literacy? affect the definition of

Minor essential Revisions:
- Abstract, last sentence: HLQ is likely
Introduction.
You refer to initial concept mapping data without a reference. Is it reference 26 or 27?
Method
- Some references are not included Error! Reference source not found.
“concepts 1 to 3” is not clear what you refer to.
- do the authors refer to the results of the focus groups when they use the term 'consultation data'?

Results
Section 4.3: some figures, like items difficulty score = 0.36 I tried to find in Table 4. Later I found out that the results from these section (results of the analysis on the calibration sample) are not presented in one of the Tables. This might be mentioned here.

RMSEA values > 0.5 and < 0.8 are mentioned here. I think that 0.05 and 0.08 is meant here. Note that in the Results section, they present a critical value of 0.06.

The remark that potential cross-loadings were fixed precisely to 0.0 I haven’t found in the methods section.

The text says that item difficulties of the other scales ranged form 10 to 30%. How does this correspond the difficulty values presented in Table 4: difficulty mostly higher than 0.75.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests