Reviewer's report

Title: Instruments to measure patient experience of health care quality in hospitals: A systematic review

Version: 2
Date: 2 April 2015
Reviewer: Caroline Terwee

Reviewer's report:

This is an interesting and well performed systematic review of instruments to measure patient experience of health care quality in hospitals. Some aspects, however, need further clarification.

Major Compulsory Revisions

• It is important to provide a clear definition of the construct of interest of the review. This is needed for evaluating the completeness and appropriateness of the article selection. But also for evaluating the validity of the included instruments for measuring the construct of interest. The construct of interest in this review is patient expectations. I would like to see a clear definition of what exactly is meant by ‘patient expectations’, preferably supported by relevant references in the introduction of the paper. Some guidance is provided on page 5, but a clear definition is lacking.

• In the study objectives it is important to clearly state 4 key elements of the review: the construct of interest, the target population of interest, the type of measurement instruments of interest, and the (type of) measurement properties of interest. In the current objective (no 1) the target population and type of measurement instruments of interest are not clearly stated.

• The in- and exclusion criteria should be more clearly described with regard to the same 4 key elements mentioned above.

• The quality of the instruments was rated using quality criteria used in previous reviews, such as the review of Schellingerhout et al. These criteria were developed and published by Terwee et al. in 2007 (J Clin Epidemiol 2007:60:34-42). These criteria were not developed by the COSMIN group. Please refer to the article by Terwee et al. instead of COSMIN or Schellingerhout et al.

• My most important comment refers to the utility matrix. This part of the data synthesis is not clear to me. It is not clear to me how the results from the COSMIN ratings for the quality of the studies and the results of the studies were combined to rate the utility of the instrument. For example, what if you have one study of excellent quality with a positive result and one study of fair quality and a positive result. How is taken into account in the utility rating? Another example, what if you have one study with positive findings and another study with negative
findings (both of same or different quality)? Etc. It is also unclear how some of
the items are rated. For example, how was the number of assessments needed
to ensure reliable data determined? The description of the utility matrix should be
completely transparent so that the review could be reproduced. Currently, this
would not be possible. I also suggest to look at other systematic reviews that
used COSMIN (such as the review of Schellingerhout) who used a level of
evidence approach, based on Cochrane guidelines. This could be considered as
an alternative way of combining the results from different studies, taking the
methodological quality and the (consistency of) the results into account.

• I wondered why the Consumer Quality Index (which is often used in the
Netherlands) was not included in this review? It seems to meet the inclusion
criteria, but maybe not?
http://www.ncbi.nlm.nih.gov/pubmed/?term=%22Consumer+Quality+Index%22+%5Bti%5D

• It is stated that only three instruments had tested criterion validity. I wonder
whether these studies really addressed criterion validity because I don’t think a
gold standard exists for patient experiences and patient-reported outcomes in
general. Maybe the authors of the included papers called it criterion validity, but
according to the COSMIN definitions the studies should be considered studies on
construct validity?

• The study on the HCAHPS was given a poor score for methodological quality
because structural equation modeling was used for assessing structural validity
and the authors didn’t know how to deal with this in the COSMIN box for
structural validity (they also made a remark about this in the discussion).
However, the authors may not be aware that structural equation modeling is a
form of confirmatory factor analyses and therefore it can be scored in the
COSMIN box for structural validity.

• In the discussion the authors state that some studies may have been rated as
poor or fair because only one item in the COSMIN box was rated as poor. This is
indeed how the ‘worst score counts’ method works. However, one should keep in
mind that the COSMIN 4-point rating scale was developed in such a way that
only a fatal flaw in the methodology of the study is rated as poor (that is also why
some items cannot be scores as poor because we don’t consider them fatal). We
argued that fatal flaws cannot be compensated by the quality of other
methodological issues. Please see the article by Terwee te al. (Qual Life Res
2012;21:651-657) for an explanation of the ‘worst score counts’ method.

Minor Essential Revisions

• It is stated that 10% of the records were screened by a second reviewer. Where
these abstracts of full-text articles? Please specify.

• In the results section it is stated that instruments were found from the
Netherlands but I cannot find them in Table 3.

Discretionary Revisions

• I was wondering why a search in EMBASE was not performed. In my
experience, often additional relevant articles are found in EMBASE.

- I completely agree with the authors that by using standard criteria some instruments will be rated negatively because they fall just below the criteria. This does not mean that the instrument is poor or cannot be used, but perhaps it should be regarded as a warning. I nevertheless believe it is helpful to use standard criteria to make reviews and their conclusions transparent.

**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 am the developer of the COSMIN checklist