Reviewer's report

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

Version: 3
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Reviewer: Wieneke Mokkink

Reviewer's report:

The authors of the manuscript “Instruments to measure patient experience of health care quality in hospitals: A systematic review” did a nice job to improve the review. I agree with most of the changes. However, there are some issues I would like to ask them to clarify.

1. I don’t understand what the authors mean by the first items of the questions for cost efficiency and how the question was answered: ‘what are the number of assessments needed to ensure reliable data’. Do they mean that for each instrument the measurement error of the instrument will be related to the minimal important change? Based on the comparison, and taking into account that the measurement error can be divided by the square root of the sample size, it is calculated what this n should be?

2. In a review it is important to distinguish between the methodological quality of an included study and the quality of an instrument, as the authors did. However, many researchers are less aware of this distinction. Therefore, I suggest to describe this clearly throughout the manuscript. For example, in the third research question, I suggest to change it into: ‘critique the quality of the studies and results of each measurement property separately using…’, or p 12 last paragraph ‘enable a synthesis of the quality of the methods used in the studies and results of all measurement properties’

3. P8 construct of interest: add ‘to’ in last sentence: ‘…were eliminated due to …’

4. The definition of internal consistency is now improved at p 18. However, at page 13 the addition ‘and the construct of interest’ should be deleted.

5. I do not understand the example the authors use to explain their indication of the use of the appropriate error variance (page 13). To my understanding, they are talking about the variance components to be disentangled in a test-retest design using ANOVA to determine the test-retest reliability or measurement error. The appropriate sources of variances are based on the specific research question of the investigators of the individual studies. But their example is about whether a reflective model was used which is a requirement for the interpretation of the Cronbach alpha. This seems not to match.

6. I was confused by the explanation of the authors when determining the quality of studies (p14 first paragraph). I have two issues here. First, I realized I was confused because of the phrase ‘measurement category’. They actually refer only to construct validity, and they meant that the three forms of construct validity
(structural validity, hypotheses testing and cross-cultural validity) were gathered together in their rating. I was confused, because I thought they meant all measurement properties. Second, why is their way of indicating a study of good to excellent quality ***/**. This seems to indicate a study of good and poor quality.

7. At page 16 the authors describe that most instruments are based on a reflective model. I agree that it is an important issue to identify the measurement model of the instruments, which is often quite difficult to do. However, their example used seems to be an example of a formative model: the item of the questionnaire is ‘communication between staff and patients’, which leads to (‘would have an negative effect on’) experience of quality (the construct of interest). Isn’t this a causal indicator?

8. In the result section the formulation is sometimes a bit awkward. For example, ‘all instruments tested content validity’. Authors mean ‘content validity was tested for all instruments’; other examples are ‘the QPP methodology for criterion validity’ (the methods used to investigate criterion validity of the QPP) and ‘the validity of the one of the QPP studies’.

9. I suggest to include the information given in Table 3 in Figure 1.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I am one of the authors of the COSMIN checklist.