Reviewer’s report

Title: Factors influencing success in quality improvement collaboratives: development and psychometric testing of an instrument

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Reviewer: Cordula Wagner

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In general the article is well written and interesting for a broader group of readers.

Nevertheless, there are important questions to be answered.

The authors state in the introduction that they are not aware of any instrument aiming at understanding factors of success of QIC’s. This is not true.

In the discussion they mention the publication of Duckers et al. with the title: Developing and testing an instrument to measure the presence of conditions for successful implementation of quality improvement collaboratives’.

That publication describes a comparable instrument focussing on the same aim as the instrument described in the article under review. Why not mentioning in the introduction that there is already another instrument. It does not make the article under review less interesting or relevant. There is room for more than one instrument.

Result section; sample

First sentence, last word: collaborative should be questionnaire?? If the word collaborative is right: what is meant by: ‘completed the collaborative’?

Clarify: 144 participants of 44 teams completed the questionnaire; the response rate is 95%. In the next sentence it is mentioned that teams have 7 members on average. 46 teams x 7 members is 322 possible respondents. Is a sample been taken? Is it representative?

Last two sentences before ‘construct validity testing’: the authors describe that the topics of the questionnaire showed high scores and that items showed little variation. What does this mean for the instrument aiming at measuring differences between teams, because not all of them will have success. This is an important point for the discussion.

Construct validity: the sentence: ‘a cutt-off point of 0.4 ….’ Has already been described in the method section.

4 items of the questionnaire has been excluded based in their factor loadings. From a theoretical point of few these questions are quit essential for QIC’s. why do they not fit into the factor structure? Should these questions be reformulated
and tested again?

Intercorrelations: it is confusing that the names of the scales are different. In the last part of the construct validity section new names for the three scales has been introduced. I would expect these names in the ‘intercorrelations’ section as well.

Table 3: half of the table is double and not necessary; what does ‘number’ mean (last row).

Table 4: some of the inter-item correlations are very high (0.8; 0.77); this means that some items are measuring quit the same. As the authors have not enough respondents for a factor analysis of 50 items, it would be preferable to reduce the number of items.

Discussion: again the authors state that their study is the first study exploring potential factors of success for QIC’s. This is not true. They refer to three other studies later on. Besides they have based their selection of topics on the literature. There is a much broader literature base on success factors. There only a few instruments. Therefore, the article is still relevant.

Limitations: the authors describe that there are different standards applied for principal component analysis and that 5 to ten cases per item are generally recommended. I agree. Therefore, I think that the authors should reduce their number of items before the actor analysis. They could use a cutt-off point of 0.6 for example.

Now, they have 50 items and only 144 respondents, instead of 250 to 500. 144 is not enough for a valid factor analysis with 50 items.

The authors finish the discussion with stating that the instrument is a valid and reliable measure. This conclusion can not been taken yet; based on this first study only.

**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 declare that I have no competing interests.