Reviewer’s report

Title: A Novel Method for Expediting the Development of Patient-Reported Outcome Measures and an Evaluation of Its Performance via Simulation

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Reviewer: Mohamed Boucekeine

Reviewer’s report:

The authors used the Bayesian approach to overcome the problem of small sample size in the context of instrument development. The simulation analysis showed that the integration of expert opinions through prior distributions performed better than classical CFA, especially in small sample size. Also, the authors examine the effect of expert bias and have highlighted an interesting result. Indeed, the authors showed that in the case of moderately biased priors, having more than 6 experts did not improved efficiency of OBID. This result has an important implication in term of cost and resources.

The strengths of this study were:

1) Taking into account the ordinal structure of data increased the validity of findings.
2) The application of OBID approach in real data

The article is well-written, easy to read, and the main message is clear. I accept without revision.

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