

Peer Review Report

Review Report on Quality of life: Updated psychometric properties and new norm values in a representative German sample focusing socioeconomics and mental health

Original Article, Int J Public Health

Reviewer: You-Shan Feng

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EVALUATION

Q 1 Please summarize the main findings of the study.

The authors showed, using a large and representative sample (of the German population) the internal consistency, known group validity based on socio-economic status, and discriminative validity of anxiety/depression of the German EUROHIS-QOL instrument. Additionally, this paper presents the norm percentile ranks by gender and age groups, which is a very informative addition to the literature

Q 2 Please highlight the limitations and strengths.

The strength of the study is both the rigorous sampling method, which ensures a representative sample, and especially in providing normative percentile ranks of EUROHIS-QOL scores.

However, there are several limitations of the study. The first is the lack of inclusion of vulnerable populations which may be missed by the sampling method, which can be seen from the socio-economic characteristics presented in Table 1. Secondly, there are several inconsistencies with what is promised in the Introduction and what is concluded from the Discussion/Conclusion, and what can be shown in the results (details below in Q3).

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

I thank the authors for a well presented manuscript. As far as the approach and results, I find them very interesting and valuable for those who may consider using the EUROHIS-QOL in a general population study, or needing to interpret any EUROHIS-QOL results to a general population. Both the population survey and the statistical methods are convincing and the interpretation specifically of the results also convincing.

My main concern with the paper is how these results are presented.

- 1) The authors specifically analyze the EUROHIS-QOL score against socio-economic groups and anxiety/depression scales (PHQ & GAD). This is puzzling as the EUROHIS-QOL is a generic instrument and cover many other domains of HRQoL. Either other HRQoL dimensions should be included in the validity assessment, or the document needs to be clear in the introduction, methods and discussion why these are the most relevant for the validity of the EUROHIS-QOL in a general population.
- 2) similar to the point above, I find the conclusion (page 12, line 258 that the EUROHIS-QOL is "particularly useful for [...] clinical trials" puzzling since the included analyses and results do not address clinical trials at all.
- 3) Authors should also address why this study was conducted as (page 2, lines 51-59) the EUROHIS-QOL has already been validated in both the general German population as well as many clinical and vulnerable populations? It is valid to update the population norms and to further investigate the instrument, but should be clearly stated in the manuscript.

Minor comments:

* Please check the in-text citation of the R program as well as Power M book chapter.

* When discussing the ceiling effect, please take care that ceiling is not simply the proportion reporting the highest value, but whether this reflects the population or not (i.e. whether more people than expected are reporting the highest value).

* Similar to the above comment, I wonder the N(%) of the population reporting the full 40 score on the EUROHIS-QOL

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

I find the title too general and not reflective of what is precisely investigated in the paper. Specifically, the title promises that "Psychometric properties" are investigated, whereas specifically, the EUROHIS-QOL instrument was investigated against socio-economic characteristics and anxiety/depression scales.

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Minor revisions.