PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	TOOLS TO ASSESS THE MEASUREMENT PROPERTIES OF	
	QUALITY OF LIFE INSTRUMENTS: A META-REVIEW	
AUTHORS	Lorente, Sonia; Viladrich, Carme; Vives, Jaume; Losilla, Josep-	
	Maria	

VERSION 1 – REVIEW

REVIEWER	Daniel Gutiérrez Sánchez University of Málaga, Spain
REVIEW RETURNED	19-Dec-2019

GENERAL COMMENTS	Comments to the Author
	Thank you for the opportunity to review this paper. The overall purpose of this paper is relevant and compelling in order to improve the methodological quality of systematic reviews assessing the measurement properties of Health-Related Quality of Life instruments. However, some points need to be better described.
	1. In the abstract section (Objective), the authors state that "using tools to assess the measurement properties of health status instruments improves the methodological quality of systematic reviews of measurement properties", but this is not an objective. I would suggest rewording or deleted this statement.
	2. In the abstract section the authors state that The COSMIN would be the most widespread and comprehensive tool both to assess the risk of bias of primary studies, and measurement properties of HRQoL instruments for evaluative purposes. I suggest explaining what an abbreviation means the first time it occurs, in this case for "COSMIN"
	3. There are several objectives in introduction section. I would suggest numbering the objectives to clarify. 4. The exclusion criteria are almost not described in the methods section. Consider adding a new subheading with the exclusion criteria.
	5. The authors state that "the COSMIN would be the most widespread and comprehensive tool both to assess the risk of bias of primary studies, and measurement properties of HRQoL instruments for evaluative purposes. Nonetheless, some improvements with respect to the length and structure, and the evaluation of the feasibility and burden may be advisable to increase its applicability and dissemination among researchers in order to conduct high quality systematic reviews", but I don't know if this is a strong recommendation for using this tool. I personally
	would have wanted to see a robust recommendation about COSMIN.

REVIEWER	Kwan Yu Heng Duke-NUS Medical School
REVIEW RETURNED	01-Apr-2020

GENERAL COMMENTS	This is a paper attempting to discuss the methodological, research, and practical applications of reported tools in SR that assess measurement properties of instruments evaluating HRQoL. I have a few major concerns to address:
	1. Why the authors only choose articles between 2008-2019? Is there any reasons? 2. I am curious for papers that reported PROMS for all outcomes and one of those is QoL, how does the authors such papers? I saw some missing papers so will like to find out if the authors rejected those or took stuff out of these papers for presentation. The reasons why is critical 3. Table 3 felt a little confusing. I will think it is mainly HRQoL, How come the instruments have other purposes? 4. I don't see the full inclusion and exclusion criteria in the
	methods. Pls include them. The part on setting and participants may not be fully essential here. 5. Are the reviewers independent? Who are those reviewers? Thank you for the opportunity to review Happy to review again

VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

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By submitting your review you agree to the peer review terms and conditions. If the article is published, your name and review will also be published as supplementary information to the article. This means the review will be made available under the same Creative Commons license granted to the article.

Reviewer Name

Daniel Gutiérrez Sánchez

Institution and Country

University of Málaga, Spain

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below Comments to the Author

Thank you for the opportunity to review this paper. The overall purpose of this paper is relevant and compelling in order to improve the methodological quality of systematic reviews assessing the measurement properties of Health-Related Quality of Life instruments. However, some points need to be better described.

- 1. In the abstract section (Objective), the authors state that "using tools to assess the measurement properties of health status instruments improves the methodological quality of systematic reviews of measurement properties", but this is not an objective. I would suggest rewording or deleted this statement. This sentence has been removed, as suggested.
- 2. In the abstract section the authors state that The COSMIN would be the most widespread and comprehensive tool both to assess the risk of bias of primary studies, and measurement properties of HRQoL instruments for evaluative purposes. I suggest explaining what an abbreviation means the first time it occurs, in this case for "COSMIN". The explanation of the abbreviation for COSMIN has been included, as recommended.
- 3. There are several objectives in introduction section. I would suggest numbering the objectives to clarify. Objectives have been numbered, as suggested.
- 4. The exclusion criteria are almost not described in the methods section. Consider adding a new subheading with the exclusion criteria. Subheading with the exclusion criteria has been added.
- 5. The authors state that "the COSMIN would be the most widespread and comprehensive tool both to assess the risk of bias of primary studies, and measurement properties of HRQoL instruments for evaluative purposes. Nonetheless, some improvements with respect to the length and structure, and the evaluation of the feasibility and burden may be advisable to increase its applicability and dissemination among researchers in order to conduct high quality systematic reviews", but I don't know if this is a strong recommendation for using this tool. I personally would have wanted to see a robust recommendation about COSMIN. The conclusion section has been modified as suggested.

Reviewer: 2

Reviewer Name

Kwan Yu Heng

Institution and Country

Duke-NUS Medical School

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This is a paper attempting to discuss the methodological, research, and practical applications of reported tools in SR that assess measurement properties of instruments evaluating HRQoL. I have a few major concerns to address:

1. Why the authors only choose articles between 2008-2019? Are there any reasons?

We considered that the last decade was as an acceptable period to find relevant references. The results of our meta-review support this decision, since the most relevant works concerning the reporting and methodological improvements in the field of HRQOL were recently published. In the present version the search has been updated until May 2020.

2. I am curious for papers that reported PROMS for all outcomes and one of those is QoL, how does the authors such papers? I saw some missing papers so will like to find out if the authors rejected those or took stuff out of these papers for presentation. The reasons why is critical? According to our inclusion criteria, we have only included the systematic reviews that aimed to report or to assess the measurement properties of instruments specifically evaluating the health-related quality of life. For instance, a systematic review would not be included if the declared main objective was to assess the measurement properties of PROMs intended to measure other outcomes (e.g. handy capability, depression, or pain), even if additional data relating to HRQoL was also reported. As well, maybe some others assessed "HRQoL and other PROMs outcomes" (e.g. scores), but they did not assess the quality of the "measurement properties of HRQOL PROMs" (e.g. validity, reliability, responsiveness). We have clarified the exclusion criteria to avoid confusion.

- 3. Table 3 felt a little confusing. I will think it is mainly HRQoL, How come the instruments have other purposes? All instruments were designed to assess the construct of HRQoL, but the intended use of each of them may be different. Some instruments measure HRQoL for an evaluative purpose (e.g. to assess the impact of an intervention or treatment), whereas others mainly measure HRQoL for diagnostic purposes (e.g. to differentiate groups or individuals). We have changed the term "purpose" for "intended use" to avoid confusion, both in text and in tables when appropriate.
- 4. I don't see the full inclusion and exclusion criteria in the methods. Pls include them. The part on setting and participants may not be fully essential here. The inclusion criteria are defined in the page 7. We have added the exclusion criteria section, and we have removed the part on setting and participants, as suggested.
- 5. Are the reviewers independent? Who are those reviewers? Yes, reviewers were independent. We have added names (short names).

VERSION 2 – REVIEW

REVIEWER	Daniel Gutiérrez Sánchez
	University of Málaga, Spain
REVIEW RETURNED	05-Jul-2020
GENERAL COMMENTS	Thank you for the opportunity to review this manuscript. You have
	appropriately addressed the comments about your previous
	version. The manuscript has been largely improved.
	· ·
REVIEWER	Yu Heng KWAN
	Duke-NUS Medical School
REVIEW RETURNED	16-Jun-2020
GENERAL COMMENTS	The authors answered my comments satisfactorily.