

## 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

<b>TITLE (PROVISIONAL)</b>	Reporting guidelines for health research: protocol for a cross-sectional analysis of the EQUATOR Network Library
<b>AUTHORS</b>	Catalá-López, Ferrán; Alonso-Arroyo, Adolfo; Page, Matthew; Hutton, Brian; Ridao, Manuel; Tabares, Rafael; Aleixandre-Benavent, Rafael; Moher, David

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Yaolong Chen Evidence Based Medicine Centre of Lanzhou University in China
<b>REVIEW RETURNED</b>	17-Mar-2018

<b>GENERAL COMMENTS</b>	The update of reporting guidelines could be taken into consideration.
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<b>REVIEWER</b>	Joshua D Wallach Yale University, United States of America
<b>REVIEW RETURNED</b>	14-Jun-2018

<b>GENERAL COMMENTS</b>	<p>Thank you for the invitation to review this interesting manuscript. In this study protocol, Catalá-López et al. outline a study aimed at systematically mapping out and describing the characteristics of scientific collaboration amongst developers and the citation impact of reporting guidelines in health research. Although numerous previous reviews have explored the extent of adherence to different individual reporting guidelines, little is known about the characteristics of scientific collaboration and citation impact of reporting guidelines of health research. As suggested by BMJ Open, my review will focus on evaluating whether the protocol is “scientifically credible and...presented in an appropriate context.”</p> <p>Overall, this appears to be a well developed study and the methodology proposed but the author is credible. However, there are certain areas (abstract and methods) where additional clarity may be necessary to improve the transparency and reproducibility of the study.</p> <p>Specific comments/suggestions:</p> <p>Title page:</p> <p>Page 1, Line 1: Should the title include the word “Reporting” to clarify that this analysis is focused on reporting guidelines (for those who may not be familiar with the EQUATOR Network Library).</p>
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	<p>Page 2, Line 37: It may not be clear to all research consumers what exactly the authors mean when they say that they will investigate the “citation impact of completed reporting guidelines”. This is also not fully clarified in the methods and analysis section of the abstract. For instance, are the authors interested in the number of citations the guidelines receive or the types of journals that most often publish papers citing certain guidelines?</p> <p>Page 2, Line 40: Currently, there are opportunities to improve the transparency of the abstract methods section. For instance, the authors state “We will search PubMed/Medline and the Web of Science”. However, this statement is rather unclear without additional information. What is being searched in these databases. Furthermore, the authors state: “A process of normalization will be conducted by two researchers to unify different terms and grammatical variants...”. Although this step is further developed in the full text, it is not well defined at the abstract level. Perhaps the methods and analysis section should be re-worked so that the main methods make sense on their own in the abstract – locating reporting guidelines, determining eligibility, etc.</p> <p>Page 2, Introduction (line 77): The introduction does a nice job outlining the importance of reporting guidelines. It might be useful to outline what previous reviews have focused on related to reporting guidelines (that is, many focused on the quality of reporting in different areas, scoping reviews, etc).</p> <p>Methods:</p> <p>Page 4, Line 115: The first section of the methods section is called “design”. That being said, the paragraph from lines 116-147 describes the EQUATOR Network Library and not the actual study design. The authors should consider providing an outline of the study design before describing the EQUATOR Network Library. In a other protocols on BMJ Open, I have seen authors discuss the search performed and then the article selection. In this case, the authors could move the “searching” section up, to improved clarity, and then outline the screening and eligibility criteria.</p> <p>Page 6, Line 165: Is there a specific date that the authors will/intend perform the search?</p> <p>Page 6, Line 171: The authors state, “additionally, we will contact the EQUATOR Network Library”? However, the authors do not specify why this is done.</p> <p>Page 6, Line 188: How are the Web of Science searches performed - using identifiers, titles, other?</p> <p>Page 6, Line 193: Could the authors clarify what they mean by “document type”?</p> <p>Page 7, Line 213: In this paragraph, the authors describe the “Keywords”. Are these the same keywords outlined on page 6, Line 193?</p> <p>Page 7, Line 219: It appears as if the authors have already reported this on page 6, Line 190.</p>
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	<p>Page 7, Line 221: Since the authors are downloading citation information, have they considered classifying the journals that are publishing the articles that are citing these reports. It would be interesting to see whether there are some distinct patterns (by journal or even topic).</p> <p>Page 7, Line 226: Perhaps I have missed this, but if the description of production is by institution, what happens when authors have multiple institutions? Do the authors intend to clarify how many of the results have multiple institutions.</p> <p>Page 7, Line 232: For those who may not know, could the authors define what they mean by “number of signatures”</p> <p>Page 8, Line 214: Is there a reference that the authors could use, for those who are interested in reading more about network analyses? Perhaps the sentence describing network diagrams (246) should come after the first sentence of this section to increase clarity?</p> <p>Page 8, Line 274: Could the authors clarify why they are interested in creating word clouds for the keywords?</p>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Yaolong Chen

Institution and Country: Evidence Based Medicine Centre of Lanzhou University in China

Please state any competing interests or state ‘None declared’: None

The update of reporting guidelines could be taken into consideration.

Authors’ response to reviewer 1:

Thank you. Our analysis will consider all versions of a reporting guideline (original and subsequent updates).

Reviewer: 2

Reviewer Name: Joshua D Wallach

Institution and Country: Yale University, United States of America

Please state any competing interests or state ‘None declared’: In the past 36 months, I have received research support through the Meta Research Innovation Center at Stanford (METRICS) and the Collaboration for Research Integrity and Transparency at Yale from the Laura and John Arnold Foundation.

Thank you for the invitation to review this interesting manuscript. In this study protocol, Catalá-López et al. outline a study aimed at systematically mapping out and describing the characteristics of scientific collaboration amongst developers and the citation impact of reporting guidelines in health research. Although numerous previous reviews have explored the extent of adherence to different individual reporting guidelines, little is known about the characteristics of scientific collaboration and citation impact of reporting guidelines of health research. As suggested by BMJ Open, my review will focus on evaluating whether the protocol is “scientifically credible and...presented in an appropriate context.”

Overall, this appears to be a well-developed study and the methodology proposed but the author is credible. However, there are certain areas (abstract and methods) where additional clarity may be necessary to improve the transparency and reproducibility of the study.

Authors' response to reviewer 2:

Thank you for your very useful comments, and for your time.

Specific comments/suggestions:

Title page:

Page 1, Line 1: Should the title include the word "Reporting" to clarify that this analysis is focused on reporting guidelines (for those who may not be familiar with the EQUATOR Network Library).

Authors' response to reviewer 2:

Thank you. We have updated our title following the reviewer's suggestion, as follows: "Reporting guidelines for health research: protocol for a cross-sectional analysis of the EQUATOR Network Library" (instead of "Guidelines for health research reporting: protocol for a cross-sectional analysis of the EQUATOR Network Library").

Page 2, Line 37: It may not be clear to all research consumers what exactly the authors mean when they say that they will investigate the "citation impact of completed reporting guidelines". This is also not fully clarified in the methods and analysis section of the abstract. For instance, are the authors interested in the number of citations the guidelines receive or the types of journals that most often publish papers citing certain guidelines?

Authors' response to reviewer 2:

Thank you. We have revised the abstract to clarify our primary aim will be to investigate the characteristics of scientific collaboration amongst developers and the citation metrics of reporting guidelines of health research. We will present citation metrics (including the most cited papers and reporting guidelines - "top 50 citation classics").

Page 2, Line 40: Currently, there are opportunities to improve the transparency of the abstract methods section. For instance, the authors state "We will search PubMed/Medline and the Web of Science". However, this statement is rather unclear without additional information. What is being searched in these databases. Furthermore, the authors state: "A process of normalization will be conducted by two researchers to unify different terms and grammatical variants...". Although this step is further developed in the full text, it is not well defined at the abstract level. Perhaps the methods and analysis section should be re-worked so that the main methods make sense on their own in the abstract – locating reporting guidelines, determining eligibility, etc.

Authors' response to reviewer 2:

Thank you. We have revised the abstract according to the reviewers' suggestions.

Page 2, Introduction (line 77): The introduction does a nice job outlining the importance of reporting guidelines. It might be useful to outline what previous reviews have focused on related to reporting guidelines (that is, many focused on the quality of reporting in different areas, scoping reviews, etc).

Authors' response to reviewer 2:

Thank you. We have followed the reviewer's suggestions, and revised our paper to include: (...) "Previous reviews have focused on the characteristics and methods for developing reporting

guidelines [28-30], and the completeness of reporting health research in different areas [6-9,31-34]. However, to the best of our knowledge, there has been no specific study focusing on the characterisation of research collaborations amongst developers of reporting guidelines for health research studies. (...)"

Methods:

Page 4, Line 115: The first section of the methods section is called "design". That being said, the paragraph from lines 116-147 describes the EQUATOR Network Library and not the actual study design. The authors should consider providing an outline of the study design before describing the EQUATOR Network Library. In a other protocols on BMJ Open, I have seen authors discuss the search performed and then the article selection. In this case, the authors could move the "searching" section up, to improved clarity, and then outline the screening and eligibility criteria.

Authors' response to reviewer 2:

Thank you. In page 4, first section of methods section we describe the design as a cross-sectional analysis of the Equator Network Library: "This is the study protocol for a cross-sectional analysis of reporting guidelines indexed in the Web-based EQUATOR Network Library." For this reason, we report a full description of the Library. In subsequent sections, we describe in detail "Searches", "Screening", etc... No further changes have been introduced.

Page 6, Line 165: Is there a specific date that the authors will/intend perform the search?

Authors' response to reviewer 2:

Thank you. We have revised the text to clarify this: (...) "we will search for completed reporting guidelines indexed in the EQUATOR Network Library from inception to July 31, 2018 (this date will represent 10 years after the official launch of the EQUATOR Network in 2008 [44]). (...) Intended date for the searches in PubMed/MEDLINE and Web of Science will be January 15, 2019."

Page 6, Line 171: The authors state, "additionally, we will contact the EQUATOR Network Library"? However, the authors do not specify why this is done.

Authors' response to reviewer 2:

Thank you. We have revised the text to clarify this: "we will contact the EQUATOR Network Library team for clarifications and further data (if necessary)."

Page 6, Line 188: How are the Web of Science searches performed - using identifiers, titles, other?

Authors' response to reviewer 2:

Thank you. We have revised the text to clarify this comment.

Page 6, Line 193: Could the authors clarify what they mean by "document type"?

Authors' response to reviewer 2:

Thank you. Document type refers to document type field, according to Web of Science: (e.g. article, review, letter,...) [https://images.webofknowledge.com/images/help/WOS/hs\\_document\\_type.html](https://images.webofknowledge.com/images/help/WOS/hs_document_type.html)

Page 7, Line 213: In this paragraph, the authors describe the "Keywords". Are these the same keywords outlined on page 6, Line 193?

Authors' response to reviewer 2:

Thank you. Yes, these are the keywords outlined on page 6.

Page 7, Line 219: It appears as if the authors have already reported this on page 6, Line 190.

Authors' response to reviewer 2:

Thank you for this comment. There was a typo. We have deleted line 219 (considering this was already reported on page 6).

Page 7, Line 221: Since the authors are downloading citation information, have they considered classifying the journals that are publishing the articles that are citing these reports. It would be interesting to see whether there are some distinct patterns (by journal or even topic).

Authors' response to reviewer 2:

Thank you for this suggestion. As we describe in our methods, in this study we will report scientific production and citation metrics by journal (e.g. total number of papers and total number of citations). Members of our team are collaborating with other scientists in a citation analysis (evaluating the content) of reporting guidelines (this is out of the scope of the present study).

Page 7, Line 226: Perhaps I have missed this, but if the description of production is by institution, what happens when authors have multiple institutions? Do the authors intend to clarify how many of the results have multiple institutions.

Authors' response to reviewer 2:

Thank you for this comment. In methods section, we have discussed the following:

(...) Specifically, one researcher will check the names by which an individual author appeared in two or more different forms (e.g. "Douglas G. Altman" or "Douglas Altman" or "Doug Altman"), using coincidence in that author's affiliated institution as the basic criterion for normalisation (e.g. Oxford University, United Kingdom). In the case of author's affiliated institution, names in many records may include two or more institutions (e.g. university hospitals, research centres and academic institutions) [45]. So, we will proceed to distinguish between institution names by recording all variations of any individual macro-institution as could be identified for each record (e.g. for the institutional address "The Ottawa Hospital and University of Ottawa, Canada", the normalisation approach will be to present "University of Ottawa, Canada" separately from "The Ottawa Hospital, Canada"). (...) Our approach is consistent with a previous network analysis evaluating research collaboration in meta-analyses published in high-impact factor journals: Please, see: Catalá-López F, Alonso-Arroyo A, Hutton B, Aleixandre-Benavent R, Moher D. Global collaborative networks on meta-analyses of randomized trials published in high impact factor medical journals: a social network analysis. *BMC Med.* 2014 Jan 29;12:15. doi: 10.1186/1741-7015-12-15.

Page 7, Line 232: For those who may not know, could the authors define what they mean by "number of signatures"

Authors' response to reviewer 2:

Thank you for this comment. We have revised the manuscript as suggested: "number of signatures refers to the total number of authors included in all the papers of each author".

Page 8, Line 214: Is there a reference that the authors could use, for those who are interested in reading more about network analyses? Perhaps the sentence describing network diagrams (246) should come after the first sentence of this section to increase clarity?

Authors' response to reviewer 2:

Thank you for this comment. References 47-54 provides an excellent overview about network analyses.

Page 8, Line 274: Could the authors clarify why they are interested in creating word clouds for the keywords?

Authors' response to reviewer 2:

Thank you for this suggestion. We have revised the manuscript as follows:

“We will conduct topical (also called linguistic, semantic or textural) data analyses and visualisations to determine the topic coverage of a body of text. The most frequently used keywords will be identified and presented for each journal. Word clouds displaying the frequency of terms (with larger words depicting frequency of occurrence) will be generated for the main keywords to identify major topics.”