

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)	How equity is addressed in clinical practice guidelines: a content analysis
AUTHORS	SHI, Chunhu; Tian, Jinhui; WANG, Quan; Petkovic, Jennifer; REN, Dan; Yang, Kehu; YANG, Yang

VERSION 1 - REVIEW

REVIEWER	Javier Eslava-Schmalbach Universidad Nacional de Colombia I was doing a short stay at Institute of Population Health, Ottawa, and I am developing a proposal to include Equity in the development of Clinical Practice Guidelines with people from the University of Ottawa. Because of this, I am not going to finish the review.
REVIEW RETURNED	28-May-2014

GENERAL COMMENTS	There was not a review of other sources or databases. The databases used were limited and conclusions could be different.
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REVIEWER	Antonio L. Dans College of Medicine, University of the Philippines, Philippines intellectual conflict of interest - I am the main author of one of the papers included in this review.
REVIEW RETURNED	21-Sep-2014

GENERAL COMMENTS	<p>This is a very important paper and the authors deserve congratulations for their efforts in summarizing the literature. I have some comments not captured by the score sheet:</p> <ol style="list-style-type: none">1. However, the importance of the paper is a bit understated. Science has become engrossed in the assessment of “effectiveness” and “efficiency”. Unless “equity” becomes as important, healthcare interventions will continue to “inadvertently” widen the gap between advantaged and disadvantaged populations.2. The eligibility criteria are described: “We conducted this review to investigate methodological guidance for including equity in CPGs. Only methodological guidance, guidelines, and articles that
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described when, how and to what extent equity issues could be incorporated in CPGs were included in this review.” These criteria needs to be operationally defined. What phrases or keywords were sought in the papers?

3. In table 1, the authors make a distinction between CPG developers (process) and CPG users (assessment). However in table 2 and Figure 1, they make the latter a part of the former. This is a little confusing.

4. Figure 2 and Table 2 are mentioned in the same sentence in the text. Figure 2 describes the process of incorporating equity in guidelines, while table 2 describes the themes of the various papers. The relationship between the 2 is very confusing. There are items in the figure that aren't in the table , and items in the table that are not in the figure. There are also ambiguous headings. For example is “appraisal” in the table related to “appraising evidence” or “appraising guidelines” in the figure?

5. The themes described in the text (scope, searching, formulate recommendations, appraisal, monitor implementation, assess quality of CPG's, others and the process of incorporating equity in CPG's) are different from the themes in the table (scope, searching, formulate recommendations, appraisal, monitor implementation, assess quality of CPG's, the process to develop CPG's and reporting). Again, this is really confusing. The tables should summarize what is written in the text.

6. For me, one main problem is that the authors might be combining heterogeneous papers. The papers for guideline “users” will surely differ from the papers for guideline “developers”. Their purposes are different and the target populations are very different. What makes things even more difficult is that the authors sometimes include the process of “using CPG's” as part of the process of “doing” CPG's (Figure 2).

7. The terms used to describe the themes are also confusing. Some are stated as neutral (appraisal), while others are stated as imperatives (monitor implementation). Some are nouns (scope), while others are verbs (searching). Some are detailed descriptions (“the process of incorporating equity in CPG's”), while others are very bare and ambiguous (reporting). The terms need some unification and coherence.

	<p>8. There are some sentences that I cannot understand. Perhaps these should be rephrased.</p> <p>a. "From these included checklists/frameworks, we found a few open questions which provided suggestions rather than items with appraisal functions and recommended frameworks."</p> <p>b. "Before formulating recommendations, the quality of scientific evidence must be appraised by respective appraisal tools to variable evidence classifications."</p> <p>9. In their discussion, the authors suggest using AGREE 2 to assess equity. In fact one of the great deficiencies of AGREE2 is the failure to address equity issues. I looked at the latest version online and equity was not even mentioned.</p> <p>ref: Dans AL, Dans LF. Appraising a tool for guideline appraisal (the AGREE II instrument). J Clin Epidemiol. 2010 Dec; 63 (12) :1281-2. PubMed PMID:20605571.</p>
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REVIEWER	craig Melville University of Glasgow, Scotland
REVIEW RETURNED	03-Oct-2014

GENERAL COMMENTS	<p>Interesting paper on an important topic. The manuscript has many strengths and I only have a few suggestions for improving the manuscript:</p> <p>1. I wonder if it would be better to refer to the more up to date concept of PROGRESS-PLUS, which adds age, disability, sexual orientation and other vulnerable groups to the original PROGRESS groups.</p> <p>2. The first paragraph on page 7, "We included four handbooks..." lists the topics covered in the 8 papers. I found it difficult to read and I don't feel it adds anything to the paper. Could it be removed or the information incorporated into table 1.</p> <p>3. There is some repetition between the tables, text in the results section and discussion. Removing this repetition would improve the readability of the manuscript.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1 Reviewer Name Javier Eslava-Schmalbach Institution and Country Universidad Nacional de Colombia Please state any competing interests or state 'None declared': I was doing a short stay at Institute of Population Health, Ottawa, and I am developing a proposal to include Equity in the development of Clinical Practice Guidelines with people from the University of Ottawa. Because of this, I am not going to finish the review. There was not a review of other sources or databases. The databases used were limited and conclusions could be different.

Response to reviewers:

Thank you.. We didn't search non-health databases such as transportation and economics because of the focus of this paper on CPGs. We think that methodological guidance, papers and Clinical Practice Guidelines would probably be published in journals that are indexed in MEDLINE. We also searched gray literature such as unpublished reports from some related websites. Therefore, we think that the combination of a general database (Medline) and other relevant websites, handsearching and screening reference list was sufficient.

Reviewer: 2 Reviewer Name Antonio L. Dans Institution and Country College of Medicine, University of the Philippines, Philippines Please state any competing interests or state 'None declared':

intellectual conflict of interest - I am the main author of one of the papers included in this review.

This is a very important paper and the authors deserve congratulations for their efforts in summarizing the literature. I have some comments not captured by the score sheet:

1. However, the importance of the paper is a bit understated. Science has become engrossed in the assessment of "effectiveness" and "efficiency". Unless "equity" becomes as important, healthcare interventions will continue to "inadvertently" widen the gap between advantaged and disadvantaged populations.

Response to reviewers:

Thanks for your comments. We revised the background section and included more references to papers describing equity issues and methodological lack of equity in the clinical guidelines. We added some information from the following references. Also, we used the new definition of CPGs by IOM (IOM (Institute of Medicine). 2011.).

CSDH (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization.

Oliver S, Dickson K, Newman M. (2012) Getting started with a review. In: Gough D, Oliver S, Thomas J, editors. An introduction to systematic reviews. London, UK: SAGE Publications.

McFarlane P. (2006) Not all guidelines are created equal. CMAJ. 174(6):814; discussion 815.

IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.

2. The eligibility criteria are described: "We conducted this review to investigate methodological guidance for including equity in CPGs. Only methodological guidance, guidelines, and articles that described when, how and to what extent equity issues could be incorporated in CPGs were included in this review." These criteria needs to be operationally defined. What phrases or keywords were sought in the papers? Response to reviewers:

Thanks for your comments. We have improved our definition by adding three points: "guidelines for incorporating equity into CPGs, empirical literature discussing equity-specific methodological issues of CPG development, quantitative or qualitative literature reviews that identify equity-specific methodological elements of CPG development."

3. In table 1, the authors make a distinction between CPG developers (process) and CPG users (assessment). However in table 2 and Figure 1, they make the latter a part of the former. This is a little confusing. Response to reviewers:

Thanks you. We have distinguished the papers related to guideline "users" from those for guideline "developers" in this revision. We removed Table 2 according to the third comment of Reviewer 3. In Figure 1 we aimed to illustrate the selection process of included studies so we haven't changed it. In the text, we amended lots texts to make a distinction, for example adding two subheadings (i.e.

“For CPGs developers” and “For the CPGs users”) to distinguish the difference, removing texts related to guidelines users from texts related to guidelines developers, re-indexing references related to each theme, rewriting some relevant sentences in the abstract, “Synthesis of results” and “Summary of evidence” in the discussion, and removing the theme for users “Assessing the quality of CPGs” from Figure 2, etc.

4. Figure 2 and Table 2 are mentioned in the same sentence in the text. Figure 2 describes the process of incorporating equity in guidelines, while table 2 describes the themes of the various papers. The relationship between the 2 is very confusing. There are items in the figure that aren't in the table, and items in the table that are not in the figure. There are also ambiguous headings. For example is “appraisal” in the table related to “appraising evidence” or “appraising guidelines” in the figure? Response to reviewers:

Thanks for your comments. We have provided a better description of Figure 2 and removed Table 2. We renamed Figure 2 “Overview of clinical practice guidelines development process (for CPG developers)”.

We expanded the ambiguous headings as following: “appraisal” is now “Appraising evidence and recommendations”; “The process to develop CPGs” was renamed “Providing a flow chart to include equity in CPGs”; “Reporting” is now “Others: reporting of guidelines and comments from stakeholders”.

5. The themes described in the text (scope, searching, formulate recommendations, appraisal, monitor implementation, assess quality of CPG's, others and the process of incorporating equity in CPG's) are different from the themes in the table (scope, searching, formulate recommendations, appraisal, monitor implementation, assess quality of CPG's, the process to develop CPG's and reporting). Again, this is really confusing. The tables should summarize what is written in the text.

Response to reviewers:

Thanks for your comments. We have made the description of the themes in the table and the text consistent. We removed the Table 2 and renamed some themes to improve the readability.

6. For me, one main problem is that the authors might be combining heterogeneous papers. The papers for guideline “users” will surely differ from the papers for guideline “developers”. Their purposes are different and the target populations are very different. What makes things even more difficult is that the authors sometimes include the process of “using CPG's” as part of the process of “doing” CPG's (Figure 2). Response to reviewers:

Thanks for your comments. We separated text related to CPG users from text related to developer. We have made many changes to the text including: adding two subheadings (i.e. “For CPG developers” and “For CPG users”) to distinguish the difference, rewriting some relevant sentences in the abstract (“Synthesis of results”) and discussion (“Summary of evidence”), and removing the theme for users “Assessing the quality of CPG” from Figure 2, etc.

7. The terms used to describe the themes are also confusing. Some are stated as neutral (appraisal), while others are stated as imperatives (monitor implementation). Some are nouns (scope), while others are verbs (searching). Some are detailed descriptions (“the process of incorporating equity in CPG's”), while others are very bare and ambiguous (reporting). The terms need some unification and coherence. Response to reviewers:

Thanks for your comments. We changed most of the terms used to describe the themes to make them more precise and coherent.

The details are as following: “appraisal” is now “Appraising evidence and recommendations”; “The process to develop CPGs” was renamed “Providing a flow chart to include equity in CPGs”; “Reporting” is now “Others: reporting of guidelines and comments from stakeholders”.

8. There are some sentences that I cannot understand. Perhaps these should be rephrased. a. “From these included checklists/frameworks, we found a few open questions which provided suggestions rather than items with appraisal functions and recommended frameworks.” Response to reviewers:

Thanks. This sentence was rewritten as “Most of the included studies provided CPG developers or users with open-ended questions in checklists/frameworks rather than with a tool (and examples) to judge why, what, when, and how equity issues should be addressed.”

b. "Before formulating recommendations, the quality of scientific evidence must be appraised by respective appraisal tools to variable evidence classifications." Thanks. This sentence was rewritten as "Before formulating recommendations, the quality of scientific evidence must be appraised by appropriate appraisal tools."

9. In their discussion, the authors suggest using AGREE 2 to assess equity. In fact one of the great deficiencies of AGREE2 is the failure to address equity issues. I looked at the latest version online and equity was not even mentioned. ref: Dans AL, Dans LF. Appraising a tool for guideline appraisal (the AGREE II instrument). *J Clin Epidemiol*. 2010 Dec; 63 (12) :1281-2. PubMed PMID:20605571.
Response to reviewers:

Thanks for your comments. We added this point to discussion. "Equity-specific CPG developers should focus on important questions, for example whether CPGs gave priority to the disadvantaged, how the applicability of the CPG and its evidence for disadvantaged populations was assessed, and whether implementation and monitoring strategies will detect effects for the most disadvantaged.

[Dans AL et al. 2010]"

Ref. Dans AL, Dans LF. Appraising a tool for guideline appraisal (the AGREE II instrument). *J Clin Epidemiol*. 2010 Dec; 63 (12) :1281-2.

Reviewer: 3 Reviewer Name craig melville Institution and Country University of Glasgow, Scotland
Please state any competing interests or state 'None declared': None declared Interesting paper on an important topic. The manuscript has many strengths and I only have a few suggestions for improving the manuscript:

1. I wonder if it would be better to refer to the more up to date concept of PROGRESS-PLUS, which adds age, disability, sexual orientation and other vulnerable groups to the original PROGRESS groups.

Response to reviewers:

Thanks for your comments. We have included PROGRESS-Plus [Oliver S et al. 2012] in this revision to make it better. However, we focus on the 8 elements of PROGRESS to help developers think about factors across which disadvantage may exist. [O'Neill J et al. 2014].

Ref: Oliver S, Dickson K, Newman M. (2012) Getting started with a review. In: Gough D, Oliver S, Thomas J, editors. *An introduction to systematic reviews*. London, UK: SAGE Publications.

O'Neill J, Tabish H, Welch V, et al. (2014) Applying an equity lens to interventions: using PROGRESS ensures consideration of socially stratifying factors to illuminate inequities in health. *J Clin Epidemiol*. 67(1):56-64.

2. The first paragraph on page 7, "We included four handbooks..." lists the topics covered in the 8 papers. I found it difficult to read and I don't feel it adds anything to the paper. Could it be removed or the information incorporated into table 1. Response to reviewers:

Thanks for your comments. We rewrote this paragraph throughout. These characteristics added some important information to our text and we detailed them, for example "Using different definitions of health equity the eight guiding papers may result in the difference of identifying the same conditions related to equity. Few papers provided methodological guidance to help CPG users identify important information on equity." in the discussion.

3. There is some repetition between the tables, text in the results section and discussion. Removing this repetition would improve the readability of the manuscript.

Response to reviewers:

Thanks for your comments. We have removed "Table 2 Summary of findings", which duplicated information from the text. We also removed some repeated text in the results section and discussion

VERSION 2 – REVIEW

REVIEWER	Craig Melville Glasgow University Scotland
REVIEW RETURNED	18-Nov-2014

- The reviewer completed the checklist but made no further comments.