

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Advancing the science of health research capacity strengthening in low- and middle-income countries: A scoping review of the published literature, 2000-2016.
AUTHORS	Dean, Laura; Gregorius, Stefanie; bates, imelda; Pulford, Justin

VERSION 1 – REVIEW

REVIEWER	Hazel McCullough London School of Hygiene & Tropical Medicine UK
REVIEW RETURNED	09-Aug-2017

GENERAL COMMENTS	<p>This well-written manuscript uses appropriate research methodology to address an issue of importance and relevance to the research community and funders funding Health Research Capacity Strengthening (HRCS). In the effort to help advance this emerging field of research as a science, this is a valuable mapping exercise, and with the publication typologies being a useful starting point to help understand the current literature and research evidence in this area.</p> <p>The limitations of the study are clearly set out, and with the exclusion criteria of the literature reviewed (non-peer reviewed) clearly stated. However, if the purpose of the scoping review was to examine the “extent, range and nature of the emerging literature” (lines: 20 – 22, pg: 6) and not to critically examine the research quality or analyse the findings, would the inclusion of the grey literature not be a useful addition to the study? Although the grey literature has not been through a formal peer-review process, often the informal peer review that is undertaken in the production of the literature can be arguably as rigorous as the formal peer review process. Perhaps some justification is needed as to why certain literature, and dates, were omitted.</p> <p>In the results section, Table 3 – content analysis of capacity definitions – is a good synthesis of results but is not easy to read in the peer-review version, with the coding reference on the following page, and some of the coded abbreviations not immediately obvious.</p> <p>The manuscript gives a good account of the study in the conclusion, and puts forward some feasible recommendations. In addition to advancing HRCS as a science, it might also be worth considering the need to raise the profile of HRCS as a scientific field of research so that, in relation to other areas of science, it is viewed as having equal value and priority.</p>
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	This could serve to attract researchers, already under pressure to publish in their specialist areas, to undertake research and publish in this field. In addition it could serve to attract more HRCS researchers (the scientist-implementers) to the field .
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REVIEWER	Vicky Morgan UKCDS UK I am an employee of the Biotechnology and Biological Sciences Research Council. UKCDS is a partnership of the major UK funders of research into international development, but neither represents nor speaks for its members.
REVIEW RETURNED	10-Aug-2017

GENERAL COMMENTS	<p>Overall: a solid and useful contribution to an important area of knowledge.</p> <p>These comments include one strong recommendation for the abstract plus 5 points which are non-critical options for the authors' consideration.</p> <p>The abstract is accurate and balanced but the objectives are incomplete, reading as they do as if they are confined to mapping and analysis. The introduction (P5 para 3) makes clear that the goal is "to advance the development of a unified, implementation-focused HRCS science" and the abstract should include this.</p> <p>Minor points:</p> <ol style="list-style-type: none"> 1. Data charting & analysis (P7). It would have been useful to see a discussion of why the method used was described, as it is not clear from the text that the researchers followed the framework in Levac (ref 11, specifically, Table 3; #3; 2a, 2b of Levac). Other methods are available, including use of initial dual analysis and moderation as well as ongoing iteration, eg P42 in Collaboration for Environmental Evidence. 2013. Guidelines for Systematic Review and Evidence Synthesis in Environmental Management. Version 4.2. Environmental Evidence: http://environmentalevidence.org/wp-content/uploads/2014/06/Review-guidelines-version-4.2-finalPRINT.pdf. 2. This is not a show-stopper, but more discussion of the methods explaining why they are proportionate would have been reassuring, and would have linked to the point made in the paper (P25, L331 et seq) that definitions of RCS may be applicable beyond the world of health. By the same token, methods to study it may come from other disciplines which have developed techniques originally borrowed from medical research. 3. Definitions (P10 L5 & elsewhere) – it would be less confusing to refer to 'learning and evaluation from initiatives' and 'assessment of capacity', at least the first few times, rather than the short hand used. 3. Evidence synthesis category – the small number of papers found in this category, and the fact that >50% share an author with the paper under review, could be worth flagging and discussing as a finding of the study.
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	<p>4. Research agenda (P24 L298) – it could be useful to add a description of what the components of a needs-based agenda would be/what it would look like & in what ways different from the existing material</p> <p>5. Numbering – the numbering of sources in the references, Table 1 & Table 9, which all use simple numbering, gets very confusing. This may be something for the journal editors to address.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1

Comment: The limitations of the study are clearly set out, and with the exclusion criteria of the literature reviewed (non-peer reviewed) clearly stated. However, if the purpose of the scoping review was to examine the “extent, range and nature of the emerging literature” (lines: 20 – 22, pg: 6) and not to critically examine the research quality or analyse the findings, would the inclusion of the grey literature not be a useful addition to the study?

Although the grey literature has not been through a formal peer-review process, often the informal peer review that is undertaken in the production of the literature can be arguably as rigorous as the formal peer review process.

Perhaps some justification is needed as to why certain literature, and dates, were omitted.

Response: Reviewer one makes an important point; however, we intentionally limited the review to peer-reviewed publications only as the grey literature in this subject area is incredibly diverse and not readily accessible through standardised literature search methodologies. We therefore felt that broadening the search to include grey literature would still not lead to an exhaustive review (as we would still likely ‘miss’ a large body of the grey literature). As our focus is also on advancing HRCS science, we also felt it appropriate to focus on peer-reviewed publications as a measure of ‘scientific activity’ (e.g. as opposed to ‘programme reports’ which are often the result of routine M&E or consultant activity conducted outside of a scientific context). The exclusion of the grey literature is highlighted as a limitation in the study design and we have made several revisions throughout the manuscript to further highlight the focus on peer-reviewed literature (e.g. we now explicitly refer to ‘peer-reviewed HRCS literature’ throughout as opposed to ‘HRCS literature’).

Comment: In the results section, Table 3 – content analysis of capacity definitions – is a good synthesis of results but is not easy to read in the peer-review version, with the coding reference on the following page, and some of the coded abbreviations not immediately obvious.

Response: We agree the Table and the respective coding reference should be on a single page. However, we anticipate this will be the case when the Table is properly type-set in the BMJ Open style. We also agree that the coded abbreviations are not immediately obvious as stated in the body of the Table and can only be properly understood with the aid of the coding reference. Unfortunately, it would not be possible to include clearer abbreviations in the body of the Table without substantially increasing column width. An alternative would be to simply number the 9 columns (rather than use a somewhat meaningless abbreviation), but that would still then rely on the reader using the coding reference to make sense of the tabulated data. We are happy to take BMJ Open’s advice on this matter (which, in any case, should be less of a problem if the Table and coding reference are on a single page).

Comment: The manuscript gives a good account of the study in the conclusion, and puts forward some feasible recommendations. In addition to advancing HRCS as a science, it might also be worth considering the need to raise the profile of HRCS as a scientific field of research so that, in relation to other areas of science, it is viewed as having equal value and priority. This could serve to attract researchers, already under pressure to publish in their specialist areas, to undertake research and publish in this field. In addition, it could serve to attract more HRCS researchers (the scientist-implementers) to the field.

Response: The following sentence has been added to the discussion 'Specialist meetings and HRCS research networks would also serve to raise the profile of HRCS science, increasing its standing and recognition as a legitimate field of scientific investigation and attracting greater involvement from the broader health research community.'

Reviewer 2

Comment: The abstract is accurate and balanced but the objectives are incomplete, reading as they do as if they are confined to mapping and analysis. The introduction (P5 para 3) makes clear that the goal is "to advance the development of a unified, implementation-focused HRCS science" and the abstract should include this.

Response: The suggested sentence has been added to the abstract. Additional edits to the abstract have also been made to ensure compliance with the word count restrictions.

Data charting & analysis (P7). It would have been useful to see a discussion of why the method used was described, as it is not clear from the text that the researchers followed the framework in Levac (ref 11, specifically, Table 3; #3; 2a, 2b of Levac). Other methods are available, including use of initial dual analysis and moderation as well as ongoing iteration, eg P42 in Collaboration for Environmental Evidence. 2013. Guidelines for Systematic Review and Evidence Synthesis in Environmental Management. Version 4.2. Environmental Evidence: <http://environmentalevidence.org/wp-content/uploads/2014/06/Review-guidelines-version-4.2-finalPRINT.pdf>.

Comment: This is not a show-stopper, but more discussion of the methods explaining why they are proportionate would have been reassuring, and would have linked to the point made in the paper (P25, L331 et seq) that definitions of RCS may be applicable beyond the world of health. By the same token, methods to study it may come from other disciplines which have developed techniques originally borrowed from medical research.

Response: Reviewer 2 usefully highlighted limitations in our description of how we implemented the scoping methodology. We have now substantially revised this section to more clearly describe our review process and to better highlight its consistency with the Levac framework.

Comment: Definitions (P10 L5 & elsewhere) – it would be less confusing to refer to 'learning and evaluation from initiatives' and 'assessment of capacity', at least the first few times, rather than the short hand used.

Response: We have changed the category 'assessment' to 'capacity assessment' from its first mention in the results section and throughout, including in the supplementary files. We found the title 'learning and evaluation from initiatives' bulky to be used throughout, however we have made this more explicit at first mention and in the category explanation to aid in readability. We have also amended the 'learning and evaluation' title to 'learning and evaluation' (from research initiatives) in the supplementary files.

Comment: Evidence synthesis category – the small number of papers found in this category, and the fact that >50% share an author with the paper under review, could be worth flagging and discussing as a finding of the study.

Response: We agree with this excellent point raised by reviewer 2. We feel that we have adequately acknowledged that synthesis of evidence is uncommon within the discussion (line 277 and line 293) and conclusion (line 378). We hope that this recognition of a need to increase the number of evidence synthesis studies in relation to HRCS addresses the concerns of reviewer 2.

Comment: Research agenda (P24 L298) – it could be useful to add a description of what the components of a needs-based agenda would be/what it would look like & in what ways different from the existing material

Response: We thank reviewer 2 for raising this important point. We begin to describe how a needs based agenda may be developed beginning line 335 in the discussion section of the manuscript. As we describe in this section, we feel that stakeholder involvement is critical in the development of a needs-based HRCS research agenda to ensure stakeholder 'buy in' moving forward. Only when such stakeholder engagement is established, do we feel that the first step toward developing a harmonised HRCS community would have been achieved. We therefore feel conflicted to offer any more content regarding what a needs based agenda may look like than what is currently presented in the text.

Comment: Numbering – the numbering of sources in the references, Table 1 & Table 9, which all use simple numbering, gets very confusing. This may be something for the journal editors to address.

Response: Ignored, as per editor's suggestion

VERSION 2 – REVIEW

REVIEWER	Hazel McCullough London School of Hygiene & Tropical Medicine London, UK No Competing Interest
REVIEW RETURNED	27-Sep-2017

GENERAL COMMENTS	Thank you for a well-written manuscript, which will add value to the much needed knowledge base of Health Research Capacity Strengthening in Low and Middle Income Countries.
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REVIEWER	Vicky Morgan UKCDS UK
REVIEW RETURNED	08-Oct-2017

GENERAL COMMENTS	I couldn't see Fig 1, but am happy with the methods section and with your response to my other comments, which I accept. In case it's useful - I had considered the grey literature issue when I first reviewed this paper, but concluded that the issue had been adequately described and explained in the methods & the strengths & limitations sections. The subsequent edits are improvements.
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