Author’s response to reviews

Title: Evidence map of knowledge translation strategies, outcomes, facilitators and barriers in African health systems

Authors:

Amanda Edwards (amanda.edwards@uct.ac.za;edwards.amanda84@gmail.com)

Virginia Zweigenthal (virginia.zweigenthal@uct.ac.za)

Jill Olivier (jill.olivier@uct.ac.za)

Version: 1 Date: 16 Jan 2019

Author’s response to reviews:

Dear Editors-in-Chief

RE: Revision of paper manuscript “Evidence map of knowledge translation mechanisms, outcomes, facilitators and barriers in African health systems”

On behalf of my co-authors, I would like to submit the revised manuscript for publication to BMC Health Research Policy and Systems. Thank you for the useful comments to strengthen this submission. Please find below a point-by-point response to these comments.

REVIEWER 1:

Comment 1: This is a well written paper on a topical issue adapting the mapping synthesis approach to uncover what are the strategies in use for knowledge translation that were studied in Africa. The methods section is explicit and the results are consistent. However, the theoretical underpinnings to the search strategy present shortcomings. The health policy and systems research literature is inappropriately appraised (e.g., the prevailing concept of 'evidence informed health policymaking'). I doubt on the results of the search if 'evidence informed policy making' was added to the search.
Response 1: Thank you for these comments. The authors agree that ‘evidence informed health policymaking’ (EIHP) is an important prevailing term in health policy and systems literature. In order to capture this, the search strategy did include terms such as ‘policy making’ OR ‘health policy’ (see additional file 1), which then in turn did pick up on EIHP materials (this check was done in initial review runs). The final list of included studies therefore does contain references directly related to EIHP (see El-Jardili et al. 2014 and Ongolo-Zogo et al. 2014). It is possible our explanation of methods was not clear enough on this matter, and we have adapted it accordingly. However, we do recommend that a full systematic review approach (of more than four reference databases) would likely reveal a more comprehensive list that includes additional EIHP work done in African settings. This was not the purpose of this mapping paper, but is a recommendation from the study made on page 22.

Comment 2: Overall, the knowledge gap and the theoretical underpinnings of the field of 'evidence to policy' in Sub Saharan Africa are not properly described thus several shortcomings in setting the boundaries and contexts of the map (e.g.; restricting the stakeholders of KT to researchers and policymakers sounds odd in African health systems).

Response 2: The entire evidence to policy terrain is massive (and becomes so unwieldy that it loses specificity). In this mapping process we focused on the policy formulation process (which therefore limits the stakeholders involved). We have made this focus clearer on page 8 and 9.

Comment 3: Few points to be edited and to clarify: page 4, line 49, I don't understand the 'informal evidence'; page 11, line 41 'theories of planned behaviour'

Response 3:
- Page 5: additional examples of informal evidence added for clarification
- Page 13: 'theories of planned behaviour' expanded on to clarify meaning

Comment 4: In the method section, the authors might consider a conceptual framework to ensure that the search strategy is comprehensive enough.
Response 4: We have relied on other similar mapping studies to guide us on the proper representation of this approach in publication format – and based on this we do not feel that a conceptual framework is appropriate. However, we have restructured the methods section to further explain the evidence-based selection of search terms and clarify the search strategy in more detail.

Comment 5: In the conclusion, the first sentence "emphasized the need to boost local research capacities in LMICs" is inappropriate.

Response 5: Sentence in conclusion of abstract edited to: “emphasized the need to boost local research capacities on KT practices in LMICs” (pg 2)

REVIEWER 2:

Comment 1: I can see the value of mapping the literature on KT in African health systems. However, it is not clear to me what the takeaway messages of this review are. What are the key implications for health researchers and policymakers who are interested in engaging KT in an African health system? What issues or findings related to KT are distinctive to Africa, or seem more likely to emerge in African contexts than in other parts of the world? What are the main things we know from this review that we didn't know before? What should be our priorities among the seemingly unlimited possible questions for future research? Addressing these questions will require a deeper level of analysis and interpretation, going beyond mere listing and counting.

Response 1: Thank you for raising these important questions. The discussion and conclusion have been edited and expanded to strengthen the takeaway messages and address these concerns.

Comment 2: Other, more minor comments: There is a need for more clarity about how you are thinking about traditional vs. integrated approaches to KT. In the second paragraph, you present the CIHR definition of KT (which includes "synthesis, dissemination, exchange, and...application") but then state: "Critics consider this too limited a definition for modern conceptualizations of knowledge, preferring knowledge exchange, knowledge interaction, or more recently, integrated knowledge translation...". I'm not certain what you mean here. The
CIHR definition does include knowledge exchange, and CIHR is an advocate of integrated knowledge translation, so it's unclear why the CIHR definition would be considered too narrow to accommodate these ideas. Also, the "Critics..." sentence seems to imply that "knowledge exchange," "integrated KT," etc. are definitions or conceptualizations of KT in general, whereas in fact some if not all of them refer to only a subset of KT. The rest of the paper touches on traditional and integrated KT in a way that seems a little haphazard, without clearly differentiating between the two or commenting on the implications of pursuing one or the other. To me, the finding that lack of high-quality, locally-relevant evidence constitutes the #1 barrier for policymakers suggests that integrated KT would be the most appropriate approach, as the problem is one of knowledge production rather than knowledge translation (see Van de Ven & Johnson on engaged scholarship). However, the paper doesn't really draw forth (this or other) implications for KT practice.

Response 2: Thank you for highlighting these points. The real challenge (in response to reviewers 1 and 2) is that the KT field is so dispersed and diverse. Paragraph 2 on page 3 has been edited to clarify the conceptualisations of traditional KT and integrated KT against the CIHR definition. Although the paper makes use of traditional KT terminology, the authors agree that integrated KT is an important approach, especially in the resource-constrained settings of many African countries. To better highlight this and draw on policymakers’ need for more locally relevant reliable research, the second paragraph on page 20 (in the discussion) has been edited. An additional point in the conclusion further draws on the potential of and need for more insight into integrated KT in African settings.

Comment 3: The background section has many other problems of clarity, and needs to be extensively edited. Sentences like, "Thus, the optimal choice of KT mechanisms as they vary by context remains unclear" seem to be composed of parts of 2 or 3 other sentences, and the end product is not intelligible. Anytime "they" or "this" is used, please check to make sure that its referent is clear and correct.

Response 3:

- Page 6: Edited “optimal choice” sentence to read: “These issues make the selection of appropriate, contextually-relevant KT strategies difficult for researchers and policymakers.”

- All referents checked and edited where needed.
Comment 4: The term "mechanism" is confusing, because in the evaluation field it's frequently used as a technical term with a different meaning. Unless you mean "the 'active ingredient' that explains why Intervention X causes Outcome Y" please use a different term, such as "activity," "intervention," or "strategy."

Response 4: Thank you for this valid comment. The term “mechanism” has been changed to “strategy” in all text, figures, tables and additional files.

Comment 5: "Evidence mapping is distinguished from scoping review methodology in the level of stakeholder involvement...rigor in the search strategy, and the nature or usability of the final product or map." In what way specifically do these things differ between the two methodologies?

Response 5: On page 7 the sentence has been reframed to clarify the ways in which these methods differ: “Despite methodological similarities, evidence mapping has been distinguished from scoping review methodology by engaging with stakeholders early in the research process; through the increased rigor of systematic online database searches and the final production of a visual or searchable database and/or user-friendly ‘map’” [50].

Comment 6: Regarding the literature search, please justify the use of the "best match" function in PubMed - is this accepted practice for evidence mapping, and what is the risk of missing relevant articles? Also, please note that searches of databases or Google Scholar are not "hand searches" - hand searching means reading through a journal issue from cover to cover in order to look for relevant content.

Response 6: 
- The following rationale has been added to justify use of the “best match” function: “The “best match” function is based on a weighted frequency algorithm that enables only those studies with the highest frequency of targeted search terms to be included in search results. This strategy was employed on recommendation by the medical librarian based on the rationale that the risk of missing relevant articles was balanced against the logistical constraints of screening an overly burdensome number of irrelevant studies.”
- Thank you for highlighting this error. “Hand searches” has been edited to “searches” on page 10.

Comment 7: It would be helpful to spell out the definitions of the four types of KT mechanisms/strategies in Lavis' framework; in particular, the distinction between "exchange" and "integrated" approaches may not be familiar to readers.

Response 7: Definitions for these have been added in box 2, page 14.

Comment 8: What did the 9 studies that categorized types of knowledge use find in each category - to what extent did they find that symbolic, conceptual, and/or instrumental use occurred? Can you use this typology to describe the findings of the other studies, even if they did not use these terms themselves? Note also that these are three types of knowledge use, but not all of the observed outcomes are types of knowledge use (e.g., creation of a database of researchers and policymakers is not a type of use of research findings, nor is change in intergroup attitudes, etc.)

Response 8: Thank you for these important questions. The authors agree regarding the clear distinction between types of knowledge use and other outcomes reported. To give further detail to the nine studies that categorised symbolic, conceptual and instrumental knowledge use, the “Outcomes of KT” paragraph has been expanded on page 17.

Comment 9: It is only useful to know about context factors if we can attach them to causal statements in order to understand what works/doesn't work in what context (e.g., Intervention X can cause Outcome Y, but Context Factor Z prevents this from happening - see Pawson & Tilley on realistic evaluation). Was there any insight of this nature in the literature?

Response 9: The authors agree with this comment. In figure 5, contextual factors are briefly listed to demonstrate the wide range of factors reported across studies. However, no causal relationships are assumed as contextual factors were mostly given as descriptive background to studies. None of the reviewed studies established causal links between specific contextual factors and specific KT strategies or interventions, and it is beyond the scope of this mapping study to try to make this link. This important point has been added to page 15.
We look forward to hearing from BMC Health Research Policy and Systems in due course.

Yours sincerely,

A. Edwards, V. Zweigenthal & J. Olivier