Author’s response to reviews

Title: Stakeholders’ experiences with the Evidence Aid website to support ‘real-time’ use of research evidence to inform decision-making in crisis zones: A user testing study

Authors:

Ahmad Firas Khalid (kkhalida@mcmaster.ca)
Jo Lavis (lavisj@mcmaster.ca)
Fadi El-Jardali (fe08@aub.edu.lb)
Meredith Vanstone (vanstomg@mcmaster.ca)

Version: 1 Date: 03 Sep 2019

Author’s response to reviews:

September 02, 2019

Health Research Policy and Systems
HRPS-D-19-00138
From: Ahmad Firas Khalid, John N. Lavis, Fadi El-Jardali, Meredith Vanstone

Re: Decision-makers’ experiences with the Evidence Aid website to support ‘real-time’ use of research evidence to inform decision-making in crisis zones: A user testing study

Dear Dr. Rosanna Gonzalez-Mcquire,

Thank you for your feedback regarding our manuscript (HRPS-D-19-00138). We have responded to the identified revisions below. All changes are now reflected in revised version of the manuscript and tables.
Reviewer #1: General comments and minor changes

1. The first thing, the conclusion doesn't match the objectives in abstract. According to the objective of the abstract it states, "The objective of this study is to explore decision-makers' views of Evidence Aid, contributing further to our understanding of the use of research evidence in decision-making in crisis zones." So, the conclusion should answer the objective but as shown in the abstract it states, "This is the first study to specifically focus on an evidence website for crisis zones, elaborated on the information needs of decision-makers, and put forward specific suggestions about how to improve evidence websites.", which may not relate to the objective.

Response to Reviewer: We agree with the reviewers comment and subsequently changed the conclusion to match the objectives in the abstract. The conclusion now reads, lines 49-53, as follows: “Stakeholders in crisis zones found Evidence Aid to be useful, accessible, and credible. However, they experienced some problems with namely the lack of a search engine on the home page and that some full-text articles linked to from the site require a payment”.

2. About methods, could you please explain about study population and normal situation of searching research evidence among your study population? Study population, according to you was comprised of five groups. Please provide total population size before making a two-stage sampling such as how many participants were listed in the first stage of recruitment in each group (senior decision-makers, field managers, healthcare provides, advisors and analysts and researchers) and how many of them were selected in the second stage following your criteria. A clearer picture of the selection process will better qualify your statement, "we interviewed a large number and diverse range of people for a study of this type".

Response to Reviewer: We agree with the reviewers comment. We added details on the number of participants recruited in each of the two stage sampling process, lines 182-184: “We recruited 9 participants from our first stage of sampling, and 22 additional participants were identified through snowball sampling. Our sample size amounted to a total of 31 participants (Table 1). Previous user testing studies highlighted that 80% of known usability problems could be obtained from five representative users, with diminishing returns after the fifth user (28-30).” (page 9 in revised manuscript)

Â It might be clearer if you specify gender percentages of the study population. If not readers may question why females are more represented (20/31) in this study. Do females prefer the Evidence Aid? Do females prefer to join the study? Males prefer the other evidence base? Are males less interested to join the study? Even after study show there was no difference in responses across gender.
Response to Reviewer: We agree with the reviewer’s suggestion. We subsequently changed the gender numbers to percentages, lines 235-237, “65 percent of our participants were females and 35 percent were males”. Gender was not part of our inclusion criteria. We purposively sampled two types of participants for the study: participants who have used Evidence Aid before and those who have not. All participants enrolled in the study were either currently working or have worked within the last year in a crisis zone, lines 139-149.

It's unclear in searching research evidence among your study population, if most of participants never used the Evidence Aid before (22/31). Readers may have a question about how many people of your target population (before you selected) know of Evidence Aid? What did they commonly use prior to search their reference?

Response to Reviewer: Based on the reviewers comments, we highlighted in the revised manuscript how many of our participants have heard of Evidence Aid before we contacted them for the interview, lines 236-237,: “Seventeen of interviewees have never heard of Evidence Aid before our interview, while fourteen participants have heard and used Evidence Aid occasionally.” In table 1 of our study, we also highlight how many of our respondents used Evidence Aid before and how many respondents did not. We also state those findings in our results section of our manuscript under Participant profiles, lines 234-235, stating: “A high proportion of interviewees had not used Evidence Aid before (n=22)”.

We recruited two types of participants: those that have used Evidence Aid and those that have not. When we sent out our invitation emails, we explicitly asked them if they have used Evidence Aid before or not in order to capture a representative sample of participants who have used Evidence Aid before and those that have not. During our interviews, we explicitly asked our participants if they heard about Evidence Aid before contacting them for the interview. This is highlighted in our interview guide that is available as an additional file. In addition, we also asked our participants where they searched for research evidence to address their knowledge needs. We captured this information in our manuscript under “Table 2. Users’ knowledge needs, types of information used, and sources for obtaining information”. We also highlighted some of those keys findings starting on lines 238-262, pages 11 and 12 of our manuscript.

Please provide details of that source and the means to adapt to improved Evidence Aid.

Response to Reviewer: We agree with the reviewers that the sources for obtaining information by our participants is important. We provided a comprehensive list of the sources stakeholders used to obtain information and categorized it to make it easier for the reader to understand under Table 2: Users’ knowledge needs, types of information used, and sources for obtaining information. We also highlighted some of the key findings in our results section of the manuscript, on lines 238-262, pages 11 & 12 of our manuscript.
In appendix1., you also pose the question, "Did you use any other evidence websites before" (no.9) and, "if YES, could you please state which ones?" (no.10). Those answers are vital because if they have a common source, a recommendation should be made to explore the strength of that source and its adaptability to improve Evidence Aid.

Response to Reviewer: We agree with the reviewer that it is vital to identify a common source of other evidence websites that participants use. We captured this information under Table 2: Users’ knowledge needs, types of information used, and sources for obtaining information, subcategory “Sources for obtaining information”. We used bolded checkmarks √ to indicate the most cited sources of other evidence websites used by respondents.

We agree with the reviewer’s suggestion about future recommendation and included it in our revised manuscript, lines 488-490: “Researchers could also explore other evidence websites (e.g., ReliefWeb, Cochrane database), which were most cited by our participants as their main source of obtaining information to find ways to adapt these websites strengths to improve Evidence Aid”.

3. Some reference papers are quite old, reference no. 17, 27, 28)

Response to Reviewer: We agree with the reviewer’s suggestion and we updated the references to more recent articles in the revised manuscript.

- Reference number 17 has been changed in the revised manuscript with “Gopalakrishnan S, Ganeshkumar P. Systematic reviews and meta-analysis: understanding the best evidence in primary healthcare. Journal of family medicine and primary care. 2013 Jan;2(1):9.”.

- Reference number 27 has been changed in the revised manuscript with “Forsell C, Johansson J. An heuristic set for evaluation in information visualization. InProceedings of the International Conference on Advanced Visual Interfaces 2010 May 26 (pp. 199-206). ACM.”

- Finally, reference 28 has been replaced with: “Stone D, Jarrett C, Woodroffe M, Minocha S. User interface design and evaluation. Elsevier; 2005 Apr 29.”

Reviewer #2: General comments and minor changes

1. Target population Two-stage sampling approach is used to identify and recruit key informant: The use of KII approach is good and participant identification is appropriate.

Page 2, Line 26: The author mentioned that data were collected from decision makers.

Page 2, Line 41: The interviewees included senior decision-makers, advisors, field managers, analysts/researchers, etc. Questions: Are all the interviewees decision makers?
Response to Reviewer: We recognize the reviewer enquiry as to whether all our interviewees were decision-makers. We decided to change “decision-makers” to stakeholders in both the title of the manuscript and throughout the manuscript. We define stakeholder as “anyone that has an interest in, is likely to be affected by, or has the ability to influence” a decision. Changes have been in the revised manuscript accordingly. We also added our definition of stakeholders on lines 145-146.

Decision-making process is complex and requires a network of stakeholders with different types of expertise. The types of stakeholders involved in the decision-making process includes advisors, analysts and researchers providing formal support to senior decision-makers, field managers, and healthcare providers, lines 151-154 in revised manuscript.

2. Evidence Aid: The author does not explain about the Evidence Aid website clearly. In page 4 line 24, the authors mentioned the Evidence Aid website, but did not indicate clearly of the aforementioned website.

Response to Reviewer: We agree with the reviewer’s suggestion and we now clearly indicate that we are referring to Evidence Aid website, lines 83: “In light of the lack of third party research in this area, this study presents a non-affiliated examination of the use of Evidence Aid by a diverse array of stakeholders working in crisis zones.”

3. Table 2 Page 26: Using both bolded checkmark and bolded bullet point make harder for reader to interpret the important data from the table. It loses the message that the author wanted to give to the audience.

Response to Reviewer: We agree with the reviewer’s suggestion and subsequently changed the bolded bullet points to italicized to indicate that they are within Evidence Aid scope. In the revised manuscript, the only thing bolded in the table is the checkmarks that indicates most cited by respondents.

4. Table 3 Page 29: Table legend, such as italicized and bolded point, make the reader confused. Under minor issues column, one bold and italicized bullet point and 4 bolded bullet point were described. The reader may lose their interest as they have to read the legend and interpret again, especially for 4 pages table. Every table page should have the table heading.

Response to Reviewer: We agree with the reviewer’s comment and removed the italicized bullet points and instead placed a * next to the bullet points to indicate most cited by respondents. We also added a comment to indicate that every table page should have the table heading to facilitate easier read. In the revised manuscript, the only thing bolded in the table are bullet points that are within Evidence Aid scope.
5. Question Page 3, line 46 mentioned about the gap in the literature. How does the results of the article address the gap in the literature?

Response to Reviewer: The results of our article addresses the gaps in the literature that we identified on page 3 in the following ways, which we now state in our revised manuscript, lines 412-425: “As far as we are aware, this is the first study to examine evidence website use in crisis zones and the first user-testing study to investigate the information needs of stakeholders working in crisis zones, which provides valuable insight on how best to meet their knowledge needs. Second, we interviewed a large number and diverse range of people for a study of this type, with the number higher than that thought to reveal 80% of known usability problems (28). The diversity in our study is within the types of stakeholders, organizational affiliations, and whether they used Evidence Aid or not (and hence a likely broad sampling of the challenges stakeholders would face in navigating research evidence for use in crisis zones). Some notable differences in responses emerged across these diverse types of stakeholders and between users and non-users of Evidence Aid. However, there were no notable differences in responses across gender, or participant ability to verbally communicate their insights in English. Finally, this study presents a non-affiliated examination of Evidence Aid, when there is a lack of third-party research about the effectiveness of evidence websites with most existing research designed and conducted by groups associated with the website under study.”

Reviewer #3:

1. Although the title of this manuscript seemed to inform the future readers that this study was focused on decision-makers' experiences with the Evidence Aid website, actually in the manuscript, the authors sampled non-users, healthcare providers, field managers, advisors, analysts and researchers. I would suggest the authors to have a term to replace "decision-maker" in the title, and to comprehensively cover all the different roles included in this study.

Response to Reviewer: We agree with the reviewer’s comment and have made the necessary changes in the revised manuscript. We decided to change “decision-makers” to stakeholders in both the title of the manuscript and throughout the manuscript. We define stakeholder as “anyone that has an interest in, is likely to be affected by, or has the ability to influence” a decision. We added our definition of stakeholders on lines 145-146. Decision-making process is complex and requires a network of stakeholders with different types of expertise. The types of stakeholders involvement in the decision-making process can vary from “formal support” as is the case with advisors, analysts and researchers to being that of being an implementer of decisions as is the case with senior decision-makers, field managers, and healthcare providers, lines 151-154 in revised manuscript.
2. At the end of Background, the last two sentences are exactly the same as the first two sentences at the beginning of Methods—aims. It is either redundant, or a careless copy-paste, both of which are not good in academic writings. I would suggest the authors make some changes.

Response to Reviewer: We agree with the reviewer’s comment and apologize for this oversight. We deleted the redundant text that appeared at the end of the background section. The text now appears only under the Methods section. Thank you for alerting us to this.

3. The main target in this study is the Evidence Aid website. Although the authors gave a detail portrayal in Methods about what the website looks like, I would suggest the authors give the link of the website. By doing so, the reviewers, as well as the future readers of the study may have an even better portrayal about the Evidence Aid website.

Response to Reviewer: We agree with the reviewer’s comment and have now provided the link to Evidence Aid website (https://www.evidenceaid.org) on line 122.

4. Collecting data from users and non-users actually makes sense. However, the authors did not provide a rationale for why feedback and opinions must be collected from the five roles: senior decision-makers, healthcare providers, field managers, advisors, analysts and researchers. I would suggest to provide a rationale in Background, or a sampling method from a qualitative methodological perspective.

Response to Reviewer: We employed a purposeful sampling approach to selecting our participants, line 139. This was done to ensure that we capture diverse types of stakeholders working in crisis zones. Purposeful sampling is a qualitative methodology that allowed us to gain valuable insights and in-depth understanding of stakeholders views and experiences with Evidence Aid to support evidence use in crisis zones (24). We added this rationale to our revised manuscript, lines 140-142.

5. Following the previous point, the authors are highly suggested to let the readers and reviewers know the results in this manuscript were sufficiently saturated. Given the tables provided in this manuscript, only 1-3 interviewees were interviewed in each category of the participants. It is not easy to say that 1-3 interviewees from a single category provided sufficiently saturated feedback and opinions to the topic of research interests.

Response to Reviewer: Based on the reviewer’s comment, we added further clarification in the revised manuscript, lines 184-186, stating: “Previous user testing studies highlighted that 80% of known usability problems could be obtained from five representative users, with diminishing returns after the fifth user”.

We also further emphasized this point under Strengths and Limitations in the Discussion section, lines 415-417, stating “we interviewed a large number and diverse range of people for a study of this type, with the number higher than that thought to reveal 80% of known usability problems (28). The diversity in our study is within the types of stakeholders, organizational affiliations, and whether they used Evidence Aid or not (and hence a likely broad sampling of the challenges stakeholders would face in navigating research evidence for use in crisis zones”).

6. This is a qualitative study. On page 11, the authors mentioned "Global guidelines were mostly used by advisors." Do the authors mention this point in Results based on numbers, feelings, ……or other things else? Please provide information to support this.

Response to Reviewer: Based on the reviewer’s comment, we changed the word “used” to “cited” to highlight that it was based on numbers of responses. Our study found that advisors most cited global guidelines as the main type of information they use to inform their decision-making. We highlighted this in Table 2 of our results using a bolded checkmark and in the write-up of the manuscript, Line 259.

7. I would suggest the authors to further strengthen the academic merits of this study in Strengths and Limitations. I read through the entire manuscript for several times. I know the authors established a pretty good Evidence Aid website, and tried very hard to evaluate whether the website is good using a qualitative way. I, as a reader, would like to know the strengths of this study as my take-home messages, how would the results influence/change my practice in critical zones.

Response to Reviewer: We appreciate the reviewer’s comments in regards to further strengthening the academic merits off our study. We revised our strengths section to highlight the key strengths of the study, lines 412-425, stating: “There are a number of strengths to this study. As far as we are aware, this is the first study to examine evidence website use in crisis zones and the first user-testing study to investigate the information needs of stakeholders working in crisis zones, which provides valuable insight on how best to meet their knowledge needs. Second, we interviewed a large number and diverse range of people for a study of this type, with the number higher than that thought to reveal 80% of known usability problems (28). The diversity in our study is within the types of stakeholders, organizational affiliations, and whether they used Evidence Aid or not (and hence a likely broad sampling of the challenges stakeholders would face in navigating research evidence for use in crisis zones). Some notable differences in responses emerged across these diverse types of stakeholders and between users and non-users of Evidence Aid. However, there were no notable differences in responses across gender, or participant ability to verbally communicate their insights in English. Finally, this study presents a non-affiliated examination of Evidence Aid, when there is a lack of third-party research about the effectiveness of evidence websites with most existing research designed and conducted by groups associated with the website under study.”
We also added a new paragraph in our discussion section of the revised manuscript, Lines 382-388, highlighting key contributions of the study, stating: “A common challenge that stakeholders face when trying to use research evidence to inform their decision-making relates to the lack of knowledge management skills and infrastructure (6, 41-43). For example, the huge volume of research evidence currently produced and scattered across journals, books, reports, and websites; many of which require a payment to access. Evidence use includes not only the determination of what evidence is needed to inform a decision, but also how to best support the use of that evidence to its full potential. Our study found that Evidence Aid is contributing to strengthening efforts to support evidence-informed decision-making in crisis zones.”

Finally, we want to emphasize that the reviewer’s comment “the authors established a pretty good Evidence Aid website” suggests that we are the ones behind the website. However, we want to be clear in that we have no affiliation with Evidence Aid website as indicated on lines 82-82 and again in lines 423-425.

Sincerely,

Ahmad Firas Khalid
kkhalida@mcmaster.ca