# 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)	The use of infographics as a health-related knowledge translation
	tool: protocol for a scoping review
AUTHORS	Mc Sween-Cadieux, Esther; Chabot, Catherine; Fillol, Amandine;
	Saha, Trisha; Dagenais, Christian

## **VERSION 1 – REVIEW**

REVIEWER	Osei, Ernest University of KwaZulu-Natal College of Health Sciences, Public Health
REVIEW RETURNED	09-Dec-2020

GENERAL COMMENTS	General comments Generally, this is a well-written protocol for a promising review.
	Below are a few comments to assist in improving the manuscript which I think could be done easily.  Method:
	Line 156, I think it would be more appropriate if you remove the statement in relation to PICO from the manuscript.
	Please provide a PRISMA-ScR flow chart detailing how the included studies will be selected.
	The protocol has to be reported according to the PRISMA-P checklist and cite it as well.
	Timeframe: Please specify the inception date that will be used in the search.
	Please, may you add the conclusion section to this manuscript? The manuscript would benefit from some additional editing to
	address grammar and typographical errors.

REVIEWER	Barwick, Melanie Hospital for Sick Children, Research Institute
REVIEW RETURNED	13-Dec-2020

GENERAL COMMENTS	Thank you for the opportunity to review this manuscript. The proposed scoping review addresses an important topic in dissemination science, namely the evaluation of evidence in support of dissemination strategies - specifically infographics. I propose a few suggestions to improve the manuscript and to correct grammatical errors.  ABSTRACT
	Please mention that the review pertains to health research only.  BACKGROUND     Page 5 lines 83 84 grammar.  Background     Research only.
	<ul><li>2. Page 5 lines 83-84 - grammar.</li><li>3. Page 6, lines 97-99 - a direct quote requires page number along with the citation.</li></ul>
	4. Page 6, line117 - replace 'experiment' with 'evaluate'.

- 5. Page 8, line 178 outcomes should be singular.
- 6. Page 9, lines 184-187 co-development, statistics use, and formatting options are apples and oranges; some are factors and others are features, which are not the same thing. Both factors and features would seem to influence the effectiveness of infographics. Please make this distinction more clear.
- 7. Page 9, line 193 Q4 title is awkwardly phrased; consider "What types of research designs are used to evaluate infographics".
- 8. Page 10. line 207 remove the second instance of the word 'it'.
- 9. Page 11, line 238 change to "the same two reviewers".
- 10. Page 11, line 239 change to "all steps within these stages".
- 11. Page 11, line 258 change to "Relevant articles that do not meet " and revise the punctuation in this sentence.
- 12. Page 12, line 276 change to "languages other than..."
- 13. Page 14, line314 enhance should be plural.
- 14. Page 15, line 333 simply state, "in health." And, remove 'the'
- 15. Page 15, line 334 change to "...as well as research areas that require..."
- 16. Page 15, line 340 'infographic' should be plural; and check punctuation -some commas are needed.

#### **VERSION 1 – AUTHOR RESPONSE**

Reviewer: 1

#### General comments

Generally, this is a well-written protocol for a promising review. Below are a few comments to assist in improving the manuscript which I think could be done easily.

Thank you for reviewing our protocol!

### Method:

Line 156, I think it would be more appropriate if you remove the statement in relation to PICO from the manuscript.

We removed it.

Please provide a PRISMA-ScR flow chart detailing how the included studies will be selected.

Done. (see Figure 2)

The protocol has to be reported according to the PRISMA-P checklist and cite it as well.

We mainly used Arksey's steps to structure the protocol but all PRISMA items are in the manuscript.

Moreover, we used the PRISMA extension for scoping review to develop the protocol (except items for reporting the results and discussion which will be in the final scoping review). We mentioned it more clearly in the manuscript. We used PRISMA-ScR (instead of PRISMA-P) because it is recommended by JBI guidelines for conducting scoping review.

"This protocol is congruent with the PRISMA-ScR checklist (Preferred Reporting Items for Systematic Reviews and Meta-Analyses: Extension for scoping reviews), as will be the reporting of the scoping review"

Timeframe: Please specify the inception date that will be used in the search.

We added this information:

"Any types of studies will be eligible for inclusion, and we will not have any date, or publication status restrictions"

This was specified at stage 2: «We will search the following electronic databases from inception onwards: MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycInfo, Social Science Abstracts, Library and Information Science Abstracts (LISA), Education Resources Information Center (ERIC) and Cairn.»

Please, may you add the conclusion section to this manuscript?

A conclusion section is not required for a protocol paper, according to the journal guidelines.

The manuscript would benefit from some additional editing to address grammar and typographical errors.

Done.

Reviewer: 2

Thank you for the opportunity to review this manuscript. The proposed scoping review addresses an important topic in dissemination science, namely the evaluation of evidence in support of dissemination strategies - specifically infographics. I propose a few suggestions to improve the manuscript and to correct grammatical errors.

Thank you for your time and feedback!

#### **ABSTRACT**

1. Please mention that the review pertains to health research only.

Done.

### **BACKGROUND**

2. Page 5 lines 83-84 - grammar.

Done.

3. Page 6, lines 97-99 - a direct quote requires page number along with the citation.

Done.

4. Page 6, line117 - replace 'experiment' with 'evaluate'.

Done.

5. Page 8, line 178 - outcomes should be singular.

Done.

6. Page 9, lines 184-187 - co-development, statistics use, and formatting options are apples and oranges; some are factors and others are features, which are not the same thing. Both factors and features would seem to influence the effectiveness of infographics. Please make this distinction more clear.

Thank you for this comment. We agree with you. We have reviewed this section to better distinguish between key determinants on multiple levels:

"Thirdly, many factors can facilitate or hinder the relative effectiveness of infographic intervention reported in the studies. In this regard, this research question aims to explain why an intervention is or is not successful. Inspired by implementation science frameworks, we will abstract data on key determinants such as characteristics related to the infographics (what), knowledge users (who), local, organizational and external contexts (where), and knowledge dissemination process (how)."

7. Page 9, line 193 - Q4 title is awkwardly phrased; consider " What types of research designs are used to evaluate infographics".

Done.

8. Page 10, line 207 - remove the second instance of the word 'it'.

Done.

9. Page 11, line 238 - change to "the same two reviewers".

Done.

10. Page 11, line 239 - change to "all steps within these stages".

Done.

11. Page 11, line 258 - change to "Relevant articles that do not meet" and revise the punctuation in this sentence.

Done.

12. Page 12, line 276 - change to "languages other than..."

Done.

13. Page 14, line314 - enhance should be plural.

Done.

14. Page 15, line 333 - simply state, "in health." And, remove 'the'

Done.

15. Page 15, line 334 - change to "...as well as research areas that require..."

Done.

16. Page 15, line 340 - 'infographic' should be plural; and check punctuation -some commas are needed.

Done.

# **VERSION 2 – REVIEW**

REVIEWER	Osei, Ernest
	University of KwaZulu-Natal College of Health Sciences, Public
	Health
REVIEW RETURNED	07-Feb-2021
GENERAL COMMENTS	The authors have responded to all my previous comments.
	,
REVIEWER	Barwick, Melanie
KEVIEWEK	Hospital for Sick Children, Research Institute
REVIEW RETURNED	16-Mar-2021
KEVIEW KETOKKED	10 Will 2021
GENERAL COMMENTS	Thank you for the opportunity to review this manuscript. This will
	be a useful contribution and I look forward to the outputs. I have a few comments to recommend.
	With respect to the rationale, the authors should be aware of one prior, published review in this area —
	a. https://studylib.net/doc/9968795/infographics-researcha-literature-review-of-empirical-s
	2. End of grant KT activities could also involve implementation of evidence, not merely dissemination.
	3. Recommend specific language in Purpose section: To our knowledge, no study has been carried out to map the available evidence on the effectiveness of infographics to support dissemination.
	4. Regarding question number 2, I think it would be better to evaluate the outcomes of the infographic against the intention or the knowledge translation goal articulated in the reviewed study. In other words, if the intention was for an intro graphic to build awareness, did in fact do so? Relatedly, it would be informative to know whether study authors indeed identified a KT goal, for which the infographic was selected as the appropriate strategy. In my experience, authors of studies select KT strategies haphazardly.
	5. Regarding question number 3, it's an interesting notion to explore the characteristics that make infographics effective, however, this can only be done for the subset of studies where infographics were used in support of practice, behaviour or policy change. In other words, for studies in which the infographic intention is to support implementation of research evidence. Otherwise, how is this question different that the first?
	6. P. 8 – suggest "all study designs will be eligible for inclusion, and we will not have any time, or publication status restrictions."

- 7. Some grammar checks needed in a few places; proof reading required.
- 8. Would you consider going outside of health if you have a low yield in relevant papers? I think this could be useful.
- 9. In terms of outcomes, the authors fail to mention (p.10-11) that results can inform on the usefulness of infographics relative to specific KT goals, not only instructive in their creation.
- 10. With respect to the KT plan. (p12) what are the KT goals of your proposed strategies? "We will ensure broad dissemination of our scoping review findings through multiple activities: publication in an open-access peer-reviewed international journal, presentation in a relevant KT conference (e.g., Canadian Knowledge Mobilization Forum) and preparation of user-friendly KT tool such as webinar, plain language summary and infographic." -To what end?

### **VERSION 2 – AUTHOR RESPONSE**

Responses to reviewers Reviewer: 2 Dr. Melanie Barwick, Hospital for Sick Children Comments to the Author: Thank you for the opportunity to review this manuscript. This will be a useful contribution and I look forward to the outputs. I have a few comments to recommend.

Thank you, Dr. Barwick, for the opportunity to clarify and refine our protocol. We hope our changes

will be satisfying.

1. With respect to the rationale, the authors should be aware of one prior, published review in this area - https://studylib.net/doc/9968795/infographics-research--a-literature-review-of-empirical-s...

Thank you, we have included in our Purpose section how our scoping review differs from Catherine Stones' literature review. This review has not been published in a peer-reviewed journal and is undated. By analyzing the list of references, we deduced that it was conducted around 2014.

"Although a review of literature by Stones was made related to this topic of interest, our review differs by its systematic methodology specific to scoping reviews, its inclusion of all study designs, and the addition of up-to-date references past 2015, which is significant as there has been an important number of new studies using infographics in the past 5 years." (p.5)

2. End of grant KT activities could also involve implementation of evidence, not merely dissemination.

Thank you for pointing that out, we changed it.

3. Recommend specific language in Purpose section: To our knowledge, no study has been carried out to map the available evidence on the effectiveness of infographics to support dissemination.

Done. Here is how we modified this sentence:

"To our knowledge, no systematic review has been carried out to map the available evidence on the effectiveness of infographics in supporting dissemination, and such without restrictions regarding for instance study designs and evidence sources." (p.5)

4. Regarding question number 2, I think it would be better to evaluate the outcomes of the infographic against the intention or the knowledge translation goal articulated in the reviewed study. In other words, if the intention was for an intro graphic to build awareness, did in fact do so? Relatedly, it would be informative to know whether study authors indeed identified a KT goal, for which the infographic was selected as the appropriate strategy. In my experience, authors of studies select KT strategies haphazardly.

We agree with this concern and so, we revised our research questions for more clarity:

- Q1 What is an infographic?
- Q2 Why are infographics used, for whom and what do they contain?
- Q3 How is research conducted in the field of health infographics?
- Q4 How effective have infographics been in achieving their goals?
- Q5 What are the knowledge gaps and future research needs?
- 5. Regarding question number 3, it's an interesting notion to explore the characteristics that make infographics effective, however, this can only be done for the subset of studies where infographics were used in support of practice, behaviour or policy change. In other words, for studies in which the infographic intention is to support implementation of research evidence. Otherwise, how is this question different that the first?

As mentioned in the previous comment, we revised this research question which was not clear enough. We therefore integrated the question on perceived barriers and enablers to effectiveness as a sub-question of Q4, because indeed probably few studies will provide an answer.

6. P. 8 – suggest "all study designs will be eligible for inclusion, and we will not have any time, or publication status restrictions."

Thank you, we changed it as such.

7. Some grammar checks needed in a few places; proof reading required.

The manuscript has been proofread.

8. Would you consider going outside of health if you have a low yield in relevant papers? I think this could be useful.

Yes, we considered this idea but after some initial searches of the databases and the start of the screening, we concluded that there were enough articles related to health, especially in the last 2-3 years.

9. In terms of outcomes, the authors fail to mention (p.10-11) that results can inform on the usefulness of infographics relative to specific KT goals, not only instructive in their creation.

We now specified that:

"this scoping review will allow us to identify in which context infographics can be effective and for what purpose." (p.11)

10. With respect to the KT plan, (p12) – what are the KT goals of your proposed strategies? "We will ensure broad dissemination of our scoping review findings through multiple activities: publication in an open-access peer-reviewed international journal, presentation in a relevant KT conference (e.g., Canadian Knowledge Mobilization Forum) and preparation of user-friendly KT tool such as webinar, plain language summary and infographic." – To what end?

We now specified that the main objectives of our KT plan will be to share knowledge (inform) on the state of knowledge on infographics and to potentially raise awareness on their use and utility, depending on the scoping review's conclusions. (p.11)

#### **VERSION 3 - REVIEW**

REVIEWER	Barwick, Melanie
	Hospital for Sick Children, Research Institute
REVIEW RETURNED	10-May-2021

GENERAL COMMENTS	The authors have responded thoughtfully to the questions posed in the last review, thank you. Upon reading this revised version, just a few minor issues stand out.  1. Top of page 8 - To our knowledge, no systematic review has been carried out to map the available evidence on the effectiveness of infographics in supporting dissemination,[ and such without restrictions regarding for instance study designs and evidence sources] - the latter part of this sentence does not make sense to me.  2. Top of p9; remove 'from these'.  3. Stage 4 - you stated you will use Covidence for screening and data extraction but also Excel - which one?
	4. I still think the manuscript could benefit from s bit more editing, but I leave that to the journal Editors to decide.

### **VERSION 3 – AUTHOR RESPONSE**

Responses to reviewers

Reviewer 2

Dr. Melanie Barwick, Hospital for Sick Children

Comments to the Author:

The authors have responded thoughtfully to the questions posed in the last review, thank you. Upon reading this revised version, just a few minor issues stand out.

- -Thank you Dr. Barwick for your review.
- 1. Top of page 8 To our knowledge, no systematic review has been carried out to map the available evidence on the effectiveness of infographics in supporting dissemination,[ and such without restrictions regarding for instance study designs and evidence sources] the latter part of this sentence does not make sense to me.
- -This sentence has been edited: "To our knowledge, no knowledge synthesis has been conducted using a methodology that is both systematic and inclusive of all study designs and evidence sources to map the available evidence on the effectiveness of infographics in supporting dissemination"
- 2. Top of p9; remove 'from these'.
- -Ok, done.

- 3. Stage 4 you stated you will use Covidence for screening and data extraction but also Excel which one?
- -We use Covidence for screening (stage 3) and Excel for data extraction (stage 4).
- 4. I still think the manuscript could benefit from a bit more editing, but I leave that to the journal Editors to decide.
- -The manuscript has been revised by an English language editor.