SUPPLEMENTARY MATERIAL

Identifying priority questions regarding rapid systematic reviews' methods: protocol for an eDelphi study

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Ethics Certification

UNIVERSITÉ Concordia UNIVERSITY

CERTIFICATION OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN SUBJECTS

Name of Applicant:	Dr. Simon Bacon
Department:	Faculty of Arts and Science\Health, Kinesiology and Applied Physiology
Agency:	Canadian Diabetes Association Canadian Institutes of Health Research
Title of Project:	Identifying priority questions regarding rapid reviews methodology: an eDelphi study
Certification Number:	30015229

Valid From: May 02, 2022 To: May 01, 2023

The members of the University Human Research Ethics Committee have examined the application for a grant to support the above-named project, and consider the experimental procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

Richard DeMont

Dr. Richard DeMont, Chair, University Human Research Ethics Committee

Information and Consent Form – eDelphi Process

Study Title: Identifying priority questions regarding rapid reviews methodology: an eDelphi process

Researcher: Simon Bacon

Researcher's Contact Information: Simon L. Bacon, Ph.D.**;** Professor, Department of Health, Kinesiology, and Applied Physiology, Concordia University, and Researcher, Research Centre, CIUSSS du Nord-de-l'Île-de-Montréal (simon.bacon@concordia.ca; 514-338-2222 ext. 3709).

Source of funding for the study: CIHR-SPOR Chair in Innovative Patient-Oriented, Behavioural Clinical Trials

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A. PURPOSE

The purpose of the study is to survey a group of rapid reviews experts, using a modified eDelphi process, in order to identify the priority research questions and gaps about the conduct of rapid reviews.

Rapid reviews are being explored as an evidence synthesis method that it is resource-limited and that allows the production of a reliable summary, especially when decision-making is urgent. However, the methods to build this reliable evidence synthesis are not clear and there are many questions regarding the methods' required steps. The eDelphi process is a well-established consensus-building method that allows the construction of a consensus towards a specific question. This process will be done exclusively online, and will include several survey rounds during which participants will review selected items and rank their priority order.
It is anticipated that at the end of the process, a 10-item priority list will be generated, with the **most relevant questions that need to be answered regarding the methods of rapid reviews**.

B. PROCEDURES

Approximately 30-50 rapid reviews experts will participate in the eDelphi process.
If you agree to participate, you will be asked to answer some general questions about yourself (e.g., experience with evidence synthesis, job title, country).

You will then be asked to participate in three rounds of online surveys, using the LimeSurvey platform that you will access through an email with a personalised link.

Round 1
You will use three options of categories to rate the importance of suggested methodological questions of rapid reviews (high, medium, and low). For the items rated as very important, you will be asked to rank them in order of priority (1=highest priority, 2=2nd highest, etc.). Specific questions with open format responses will allow for modifications to the wording of items, as well as suggestions of additional items.

Round 2
Items will be rephrased according to the responses from Round 1. You will be provided with the median and inter-quartile range of rankings and you will re-rate the perceived importance of each item. You will also be asked whether you agree with items excluded from Round 1 or if any essential items are still missing.

Round 3
You will re-rate the remaining items. After this round, we will generate a final list of items for discussion at the consensus meeting (those items believed important by ≥33% of participants).

In total, participating in this study will take around 20 minutes each round.

After the eDelphi phase, some participants will be selected purposively by the investigative team (to include individuals with a variety of backgrounds, e.g., country, academic level, research context), with equal representation of men and women. Approximately 25 people will be invited to a consensus meeting.

The consensus meeting will also happen online and will follow established nominal group technique methods. The summary of the results of the previous work will be provided in advance, to ground conversations on empirical information and to facilitate cohesive discussion during the meeting. The meeting will start with presentations and a discussion and vote process will happen to discuss each item of the priority question list. The consensus meeting will generate a summary document detailing the questions that will generate the final priority list. Drafts will be circulated to consensus group

participants to check that the document accurately represents the discussions had and decisions made during the meeting. We will then distribute a final version of the document to all eDelphi participants to seek feedback on its wording and content, and to assess whether the consensus meeting accurately captured their opinions.

You can chose to participate in the Consensus Meeting or not. In case you don't want to participate, you can still be part of the eDelphi process.

C. RISKS AND BENEFITS

There are no risks associated with your participation to this study. The only possible drawback or disadvantage is the time required to complete the survey, which should take around 20 minutes, per round, for a total of around 60 minutes.

This research is not intended to benefit you personally. The primary advantage associated with taking part in this study is to have the opportunity to express your own concerns and questions regarding the development of rapid reviews and to contribute to creating a priority list of methodological questions and issues relevant to rapid reviews. At the end, you will have access to the results and will be able to see what has been identified as missing in the field of rapid reviews research methods.

D. CONFIDENTIALITY

Survey data will be collected on LimeSurvey, which is hosted by Concordia University on secure servers located within Canada. Only information necessary for the research study will be collected. Participants will access the LimeSurvey platform with a personalised link sent by email.

All information obtained will be kept strictly confidential, within the limits of the law. To preserve your identity and the confidentiality of your data, you will be identified with a code number known only to those directly involved with this research project. Only this code number will be used during analysis.

All data captured through LimeSurvey will be transferred and stored on secure servers located at the CIUSSS-NIM, under the responsibility of Dr. Simon Bacon. Personal data about participants, such as basic demographic information, will be kept in a separate database on secure servers also hosted by the CIUSSS-NIM.

We will not allow anyone to access the information, except people directly involved in conducting the research. We will only use the information for the purposes of the research described in this form.

The final study results may be printed in medical journals or shared with other people at scientific meetings, but it will be impossible to identify you. Participants of the last phase of the study, that includes the consensus meeting, may inform the research team in case they want to participate in the publication process.

All data will be stored for a period of 10 years.

F. CONDITIONS OF PARTICIPATION

Your participation in this study is voluntary. It is purely your decision. If you do participate, you can withdraw from the study at any time and for any reason, without having to justify your decision.

You can also ask that the information you provided not be used, and your choice will be respected. If you decide that you don't want us to use your information, you must tell the research team within one (1) week (7 days). If data collection has finished and analyses are completed (this may be true for the various phases of the online survey) then we would not be able to exclude data.

No compensation will be offered to participants.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

G. PARTICIPANT'S DECLARATION

☐ I have read and understood this form. I have had the chance to ask questions by email and any questions have been answered. I agree to participate in the eDelphi phase of this research under the conditions described.

Please let us know if you are interested in being invited to attend the consensus meeting:

☐ Yes, I am interested in attending the consensus meeting. Not all participants will be invited. I understand that I am free to refuse to attend if I am invited.

☐ No, I do not want to be invited to attend the consensus meeting. I am interested in participating only in the eDelphi phase of the study.

NAME (please print)

_____

DATE _____

If you have questions about the scientific or scholarly aspects of this research, please contact the following members of the research team:

Ariany Marques Vieira, PhD Student, Department of Health, Kinesiology, and Applied Physiology, Concordia University. Montreal Behavioural Medicine Centre, CIUSSS du Nord-de-l'Île-de-Montréal (ariany.marquesvieira@concordia.mail.ca).

Geneviève Szczepanik, Research Coordinator, Montreal Behavioural Medicine Centre, CIUSSS du Nord-de-l'Île-de-Montréal (genevieve.szczepanik@mbmc-cmcm.ca; (514) 358-6214)

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

Information and Consent Form – Consensus Meeting

Study Title: Identifying priority questions regarding rapid reviews methodology: an eDelphi process

Researcher: Simon Bacon

Researcher's Contact Information: Simon L. Bacon, Ph.D.**;** Professor, Department of Health, Kinesiology, and Applied Physiology, Concordia University, and Researcher, Research Centre, CIUSSS du Nord-de-l'Île-de-Montréal (simon.bacon@concordia.ca; 514-338-2222 ext. 3709).

Source of funding for the study: CIHR-SPOR Chair in Innovative Patient-Oriented, Behavioural Clinical Trials

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A. PURPOSE

The purpose of the study is to survey a group of rapid reviews experts, using a modified eDelphi process, in order to identify the priority research questions and gaps about the conduct of rapid reviews.

Rapid reviews are being explored as an evidence synthesis method that it is resource-limited and that allows the production of a reliable summary, especially when decision-making is urgent. However, the methods to build this reliable evidence synthesis are not clear and there are many questions regarding the methods' required steps. The eDelphi process is a well-established consensus-building method that allows the construction of a consensus towards a specific question. This process will be done exclusively online, and will include several survey rounds during which participants will review selected items and rank their priority order.
It is anticipated that at the end of the process, a 10-item priority list will be generated, with the **most relevant questions that need to be answered regarding the methods of rapid reviews**.

B. PROCEDURES

Approximately 30-50 rapid reviews experts will participate in the eDelphi process.
If you agreed to participate in the three eDelphi rounds, you were asked to answer some general questions about yourself (e.g., experience with evidence synthesis, job title, country), which we may use in the consensus meeting analysis and report.

After the three eDelphi rounds of online surveys, some participants will be selected purposively by the investigative team (to include individuals with a variety of backgrounds, e.g., country, academic level, research context), with equal representation of men and women. Approximately 25 people will be invited to a consensus meeting.

The consensus meeting will also happen online and will follow established nominal group technique methods. The summary of the results of the previous work will be provided in advance, to ground conversations on empirical information and to facilitate cohesive discussion during the meeting. The meeting will start with presentations and a discussion and vote process will happen to discuss each item of the priority question list. The consensus meeting will generate a summary document detailing the questions that will generate the final priority list. Drafts will be circulated to consensus group participants to check that the document accurately represents the discussions had and decisions made during the meeting. We will then distribute a final version of the document to all eDelphi participants to seek feedback on its wording and content, and to assess whether the consensus meeting accurately captured their opinions.

For the voting process and general data collection, a member of the research group will work as a minute taker. The meeting will happen using Zoom as the online meeting platform and will be recorded. The Montreal Behavioural Medicine Centre has a license to Zoom which guarantees security and privacy. AES 256-bit encryption safeguards all log-in.

C. RISKS AND BENEFITS

There are no risks associated with your participation to this study. The only possible drawback or disadvantage is the time required to participate in the meeting and to review the documents provided, which should take around in total 200 minutes.

This research is not intended to benefit you personally. The primary advantage associated with taking part in this study is to have the opportunity to express your own concerns and questions regarding the development of rapid reviews and to contribute to creating a priority list of methodological questions and issues relevant to rapid reviews. At the end, you will have

access to the results and will be able to see what has been identified as missing in the field of rapid reviews research methods.

D. CONFIDENTIALITY

The meeting will happen using Zoom platform. Data will be collected by the minute taker and meeting recording. The Zoom line is hosted by the Montreal Behavioural Medicine Centre. Only information necessary for the research study will be collected. Participants will access the Zoom platform with an invitation link sent by email.

All information obtained will be kept strictly confidential, within the limits of the law. To preserve your identity and the confidentiality of your data, you will not be identified and only a code number known only to those directly involved with this research project. Only this code number will be used during analysis.

On a scientific publication or any report of the consensus meeting, a list of the attendees can be shared. This usually is done to allow transparency and a better interpretation of the results by including names, affiliation or position and credentials of the consensus expert panel members. If the research team decides to publish the list of the attendees, only this information will be shared, and not individual contributions or specific answers linked to each participant.

Participants need to respect each other's confidentiality and not reveal anyone's opinion, position, or share any information outside of the meeting.

The meeting recording captured through Zoom will be transferred and stored on secure servers located at the CIUSSS-NIM, under the responsibility of Dr. Simon Bacon. Personal data about participants, such as basic demographic information collected in the survey phase of the project, will be kept in a separate database on secure servers also hosted by the CIUSSS-NIM.

We will not allow anyone to access the information, except people directly involved in conducting the research. We will only use the information for the purposes of the research described in this form.

The final study results may be printed in medical journals or shared with other people at scientific meetings. Participants of the last phase of the study, that includes the consensus meeting, may inform the research team in case they want to participate in the publication process.

All data will be stored for a period of 10 years.

F. CONDITIONS OF PARTICIPATION

Your participation in this study is voluntary. It is purely your decision.

In case you sign the Information and Consent Form agreeing to participate in the consensus meeting, you can change your mind and cancel your participation in the meeting up to five days before the meeting date. If you do participate in this phase of the study (consensus meeting), you will not be able to completely withdraw from the study. Participants may withdraw and the direct quotes from them can be excluded, but because each participant's answers can influence other participants' answers, it is impossible to completely remove the data.

If you decide that you don't want us to use your information, you must tell the research team as soon as possible, up to one week after the consensus meeting. After that, ff data collection has finished, and the summary document detailing the questions that will generate the final priority list meeting is already done, then we would not be able to exclude data.

In case you sign the Information and Consent Form agreeing to participate in the consensus meeting, you can change your mind and cancel your participation in the meeting up to five days before the meeting date.

No compensation will be offered to participants.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

G. PARTICIPANT'S DECLARATION

☐ I have read and understood this form. I have had the chance to ask questions by email and any questions have been answered. I agree to participate in the consensus meeting phase of this research under the conditions described.

NAME (please print)

_____

DATE _____

If you have questions about the scientific or scholarly aspects of this research, please contact the following members of the research team:

Ariany Marques Vieira, PhD Student, Department of Health, Kinesiology, and Applied Physiology, Concordia University. Montreal Behavioural Medicine Centre, CIUSSS du Nord-de-l'Île-de-Montréal (ariany.marquesvieira@concordia.mail.ca).

Geneviève Szczepanik, Research Coordinator, Montreal Behavioural Medicine Centre, CIUSSS du Nord-de-l'Île-de-Montréal (genevieve.szczepanik@mbmc-cmcm.ca; (514) 358-6214)

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

Eligibility Questions

1. Please, select the category with which you most strongly identify.

Researcher (including research-focus students)

Healthcare practitioner (including trainees)

Policymaker

Patient / community member / caregiver

2. How many years of experience do you have with evidence syntheses*?

** Evidence syntheses are studies developed to gather available evidence to answer a specific question. This includes systematic reviews, scoping reviews, and rapid reviews.*

None

Less or equal 4 years

5-6 years

7-8 years

9-10 years

11-12 years

13-14 years

15 years or more

3. In what aspects of evidence synthesis have you previously participated in (tick all that apply)?

Conceptualization/Research question development

Undertaking literature searches

Study screening and selection

Data extraction

Quality appraisal

Data synthesis

Interpretation of results

Knowledge translation

Other

4. How would you rate your own knowledge about conducting evidence syntheses (e.g., systematic reviews, rapid reviews, meta-analyses)? Use a scale from 0 = no expertise to 10 = very strong expertise.

5. What is the approximate number of rapid reviews* that you have previously participated in?

** Rapid Reviews accelerate the process of conducting a traditional systematic review through streamlining or omitting a variety of methods to produce evidence in a resource-efficient manner. It is a systematic way of summarizing the literature in a more resource-efficient way, usually taking less than 12 weeks to be finalized.*

0

1 or 2

3 or 4

5 or 6

7 or more

Sociodemographic Information Questions

This project aims to include responses from a wide range of people, including people with a variety of backgrounds considered experts in evidence-synthesis. For that, we would like to ask you for some general information about you. Your answers will be confidential, and no individual will be identified when the results are presented. Your contact is requested to send you the next rounds of the survey. This project aims to include responses from a wide range of people, including people with a variety of backgrounds providing valuable expertise in evidence-synthesis. To this end, we would like to ask questions about your personal background. Your answers will be confidential, and no individual will be identified when the results are presented. Your contact information is only requested to send you the next rounds of the survey.

1. In which age group do you better fit?

66 years or more
56-65 years
46-55 years
36-45 years
26-35 years
18-25 years
Less than 18 years
Prefer not to answer

2. With which sex do you most strongly identify?

Female
Male
Prefer not to answer
Other

3. What is your job title?

This information will help to understand the profile of the participants. You can write in a few words your current position. For example, Graduate student, Research Assistant, Managing director.

4. In which country do you currently work?

This question will help to understand the demographics of the participants. You can write the name of the country where you hold a position. For example: Canada, Australia, Nigeria.

5. In which city do you currently work?

6. In what field/area or research do you predominantly perform your evidence syntheses (please select all that apply)?

Evidence syntheses are studies developed to gather evidence available to answer a specific question. This includes systematic reviews, scoping reviews, and rapid reviews, for example.

Clinical
Public Health
Health system
Prefer not to answer
Other

7. What is your role in evidence synthesis (lead reviewer, coordinator, field expert, contributor to study selection and data extraction, responsible for results interpretation,…) ?

Evidence syntheses are studies developed to gather evidence available to answer a specific question. This includes systematic reviews, scoping reviews, and rapid reviews, for example.

Glossary of terms/List of definitions

Data analysis is the process of taking data and turning it into a useful material to answer a research question. There are different methods, such as qualitative and quantitative approaches.

Data abstraction/extraction is related to the act of separating, withdrawing, and taking data of interest from included studies or different sources. Usually, information about study characteristics, descriptive data, and findings (outcome data) are part of data extraction (Munn *et al*., 2014).

Efficiency is the ability to perform something well, successfully, and without waste (e.g. time, money). Balance between quality and resource consumption.

Evidence synthesis is a type of study developed to gather available evidence to answer a specific question. This includes SRs, scoping reviews, living reviews, overview of reviews and RRs for example.

Grey literature is materials and research produced outside of the traditional commercial or academic publishing and distribution channels. Common grey literature publication types include pre-prints, reports, working papers, government documents, white papers and evaluation (Simon Fraser Library, accessed in 2022).

Methods: Research methods are particular processes for collecting and analyzing data. For evidence syntheses, it usually covers the methods for: acquisition of evidence (search strategy, inclusion criteria, selection process), data extraction, data analysis, data appraisal/risk of bias/quality assessment strategy, and data synthesis process.

Rapid systematic reviews (RRs) are another evidence synthesis method that accelerates the process of conducting a traditional systematic review through streamlining or omitting a variety of methods to produce evidence in a resource-efficient manner (Hamel *et. al.*, 2021). The kinds of methods that this study will include are: search strategy, studies selection (level one and two of the screening), data extraction, risk of bias appraisal and data analysis. It is also referred in this project as **Rapid Reviews**.

Report: *"**A document (paper or electronic) supplying information about a particular study. It could be a journal article, preprint, conference abstract, study register entry, clinical study report, dissertation, unpublished manuscript, government report, or any other document providing relevant information"* (Page *et al.*, 2021).

Risk of bias appraisal/assessment: "*The purpose of study quality assessment is to capture and analyze variations among the included studies—those that met initial inclusion criteria— in terms of their credibility and vulnerability to various sources of bias"* (Littell *et al.*, 2008, Chapter 4).

Screening is part of the studies selection process for a review, checking if the references fit or not the inclusion criteria. It includes different levels, such as Title and Abstract and Full text screening.

Search Strategy, in the context of evidence syntheses, is the structured plan of how to find studies of interest. The search strategy includes the terms that are going to be used and also the sources that will be consulted (e.g. databases, repositories).

Stakeholder: the parties who will engage in, benefit from or be affected by the procedure (Tricco AC, et al. WHO Practical Guide, 2017). For this study, stakeholders of a rapid review process include decision-makers, guideline

and policy developers, healthcare providers, health system managers, end-users (public and patients), and journal editors.

Synthesis: In the context of evidence syntheses, the synthesis is the summarization of the data that were collected. "*In systematic reviews of quantitative (numerical) data, data synthesis usually appears as a meta-analysis, a statistical method that combines the results of a number of studies to calculate a single summary effect"* (Munn *et al*., 2014).

Systematic reviews (SRs) are the most common type of evidence synthesis. It is a way of searching, selecting, appraising, and synthesising the available evidence to answer a research question. It organises all empirical evidence that fits in pre-specified eligibility criteria and aim to reduce bias (Higgins *et. al*., 2022).

References

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Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). Cochrane Handbook for Systematic Reviews of Interventions version 6.3 (updated February 2022). Cochrane, 2022. Available from www.training.cochrane.org/handbook

Littell JH, Corcoran J, Pillai V. Systematic Reviews and Meta-Analysis. Published to Oxford Scholarship Online: January 2009. DOI: 10.1093/acprof:oso/9780195326543.001.0001

Munn Z, Tufanaru C, Aromataris E. Data Extraction and Synthesis: The steps following study selection in a systematic review. AJN 2014 vol. 114 (7).

Page MJ, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. DOI: 10.1136/bmj.n71

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