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CCSA Rapid Review Methodology

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Introduction

In 2013–2014, the Canadian Centre on Substance Abuse (CCSA) piloted a project with partners that explored the applicability of rapid reviews to the substance abuse field. The goal of the project was to build the capacity of CCSA and its partners to produce knowledge syntheses and respond in a timely manner to questions relevant to the field.

Rapid reviews are tools used to summarize research on a topic to provide evidence-based answers to important questions from the field. They can also identify gaps in the literature and help inform future strategic directions. Rapid reviews use a streamlined systematic approach to review and summarize existing evidence promptly and require fewer resources to complete than traditional, systematic reviews (Khangura, Konnyu, Cushman, Grimshaw, & Moher, 2012; Ganann, Ciliska, & Thomas, 2010). (For a discussion of the methodology used in conducting a systematic review, see Higgins & Green, 2011.)

The streamlined approach is achieved by limiting some of the elements of a traditional, systematic review such as the scope of the search strategy, the number of questions or topics considered and the number of individuals involved in producing the review. Owing to these limitations, rapid reviews can introduce a greater degree of bias or error. For example, rapid reviews might not be able to respond adequately to complex questions or capture all evidence on a given topic. Nevertheless, rapid reviews provide evidence-based information that quickly responds to the needs of policy and decision makers.

This document provides a description of the current approach CCSA uses to conduct its rapid reviews and can serve as a guide for anyone wishing to conduct rapid reviews in the substance abuse field. The methodology contained in this document might change as the science of rapid reviews progresses or as CCSA's experience in producing rapid reviews increases. Any questions related to this document should be sent to info@ccsa.ca.

CCSA's Rapid Review Audience and Product

Audience

CCSA rapid reviews are intended for care providers, managers, policy and decision makers, and others working in the substance abuse field who have limited access to research or capacity to synthesize research.

Product

Each rapid review contains the research question, search strategy, synthesis of the research studies (including evidence tables), conclusions and key messages. Future CCSA rapid reviews will contain a critical appraisal of the studies using validated assessment tools.



Method

Step 1. Topic Selection

Topic suggestions for CCSA rapid reviews come from partner and stakeholder organizations, knowledge exchange networks, and CCSA staff. CCSA with its partners is developing a process for prioritizing topics to be addressed. CCSA limits most of its rapid reviews to questions that assess the efficacy of an intervention or examine the systematic relationship between two or more variables of interest.

Step 2. Refining the Question

Prior to implementing the search strategy, a researcher and information specialist work closely with the requestor to refine the wording and scope of the original question. This process is often iterative and involves defining the population of interest, intervention of interest, groups with which to compare the efficacy of the intervention, outcomes of interest and settings that are most appropriate in answering the question. These elements are collectively referred to as PICOS, an acronym for Population, Intervention, Comparator, Outcome and Setting.

Step 3. Developing the Search Strategy

The search strategy is developed and conducted by an information specialist working in consultation with the researcher and requestor. Generally, CCSA restricts its rapid review searches to:

- English-language articles;
- Literature published in the past five years;
- A limited number of databases depending on the chosen topic (e.g., PubMed, ERIC, Project Cork, PsycINFO, Psychology and Behavioral Sciences Collection); and
- Full-text articles.

Note: The search parameters can vary depending on the topic, context, years, and geographic location of the main body of research. Search terms and inclusion criteria are determined in consultation with the requestor to reflect terminology used in the substance abuse field.

In some instances, CCSA also searches the grey literature for relevant articles. The grey literature search is limited to the 14 resources listed in Grey Matters Light (Canadian Agency for Drugs and Technologies for Health, 2014).

While the initial search does not discriminate based on types of evidence (i.e., both meta-analyses and systematic reviews, as well as primary articles are identified in the initial search), CCSA first uses the available evidence from the pinnacle of the evidence hierarchy (see Appendix A). Only in the absence of studies that have high-quality designs are other studies considered.

Where possible, titles and corresponding abstracts obtained from the initial search are uploaded to a screening and data abstraction software (e.g., Abstrackr). If it is not possible to use specialized software, CCSA uses Microsoft Excel as a tool to help screen articles and extract data.

Step 4. Relevance Screening: Title and Abstract

The researcher reviews titles and abstracts for relevance to the research question and identifies articles that do not meet the pre-determined inclusion criteria. This level of screening is designed to remove irrelevant articles and duplicates that were picked up by the search strategy. The researcher



has three options with which to categorize an article: “include,” “exclude” or “unclear.” Articles categorized as “include” or “unclear” undergo full-text relevance screening.

Step 5. Relevance Screening: Full Text

To minimize delays in the rapid review process, only articles that are publicly available or that can be purchased and delivered within one week of the initial request are included in the full-text screening.

The lead researcher reads the full-text of each of the retrieved articles and uses the inclusion criteria to determine whether the study should be included in the rapid review. Categories at this stage are limited to “include” or “exclude.” Articles failing to provide enough information to answer all of the questions are excluded. All decisions are documented. Further, to ensure articles are not omitted from the review by mistake, all excluded articles are reviewed by a second reviewer. Disagreements are resolved first by consensus and then, if required, by a third reviewer. This method is known as the liberal, accelerated screening method (Khangura, et al, 2012).

Step 6. Data Abstraction

After conducting full-text screening, information is gathered from each of the included articles using a data extraction table. The data extraction table includes information such as publication details, study populations, number of participants, interventions, comparators and outcomes (see Appendix B). Although full-text screening and data abstraction are typically done in two distinct steps, combining them can result in efficiencies and save time in conducting the review.

Step 7. Quality Appraisal

The lead researcher appraises study quality, when possible followed by a second reviewer, using the tools listed in the table below. If several papers are found to be related to one study, these papers are grouped and only one study is selected for quality appraisal.

Recommended tools for appraising the quality of research studies by type of study

Systematic Review	Randomized Controlled Trial	Quasi-Experimental	Cohort	Case-Control
AMSTAR	The Cochrane Collaboration’s tool for assessing risk of bias	EPOC-specific resources for review authors	Newcastle-Ottawa Quality Assessment Scale	

Step 8. Drafting of Rapid Review

Using the data obtained from data extraction, combined with findings from the study appraisal, the review provides a narrative synthesis of the key findings and conclusions, including statements about the quantity and quality of the evidence and consistency of results. The report is reviewed by other review team members or an external expert or both to provide a perspective on implications for practice or policy.

Step 9. Dissemination

CCSA rapid reviews are published in English and French on CCSA’s website and disseminated through the appropriate networks.



Additional Resources

- [Systems Approach Workbook: Background: Developing a Systems Approach to Substance Use in Canada](#)
- [Developing an Efficient Search Strategy Using PICO](#)
- [Keeping Track of Search Results](#)
- [Finding Grey Literature in Mental Health and Addiction](#)

Rapid Review Services

- [Ontario HIV Treatment Network, Rapid Response Service](#)
- [Canadian Agency for Drugs and Technologies in Health, Rapid Response Service](#)

Examples of CCSA Rapid Reviews

- [The Effect of Post-Detoxification Housing on Substance Abuse](#)
- [Seeking Safety: The Benefits of Gender-specific versus Co-Educational Therapy](#)

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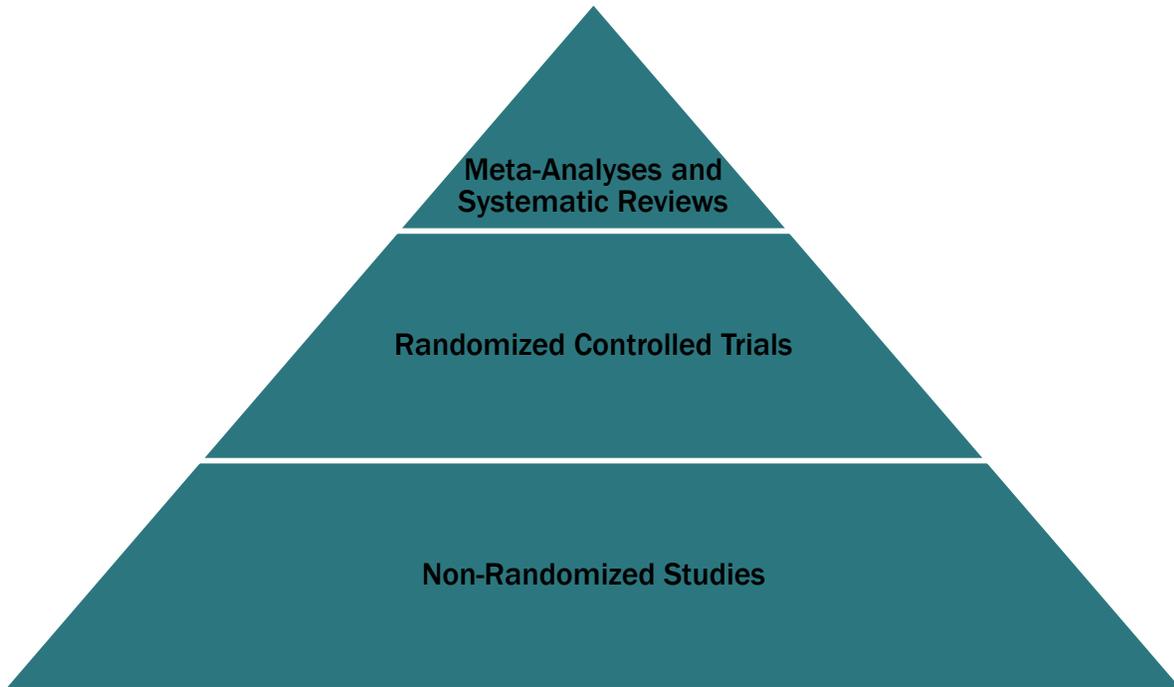
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Appendix A: Evidence Hierarchy



Appendix B: Data Extraction Table Template

Unique Study ID/Title	Study Design	Population Characteristics	Location of Study	Intervention	Comparator	Outcome	Sample Size	Recruitment Information	Study Limitation	Notes