



Ontario Centre of Excellence  
for Child and Youth  
Mental Health

*Bringing People and Knowledge Together to Strengthen Care.*

# Resources for preparing a literature review

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## BASIC TIPS

Considerations in conducting a non-systematic literature review to inform implementation planning:

Searching the literature:

1. The implementation team needs to agree on a precise and clear research question. The more precise, the more you can limit your search and the less breadth of literature that you will have to scan through to see if articles are relevant. This is a deliberate, first step. Have a conversation about what the issue is, what information is needed, and what precisely the literature will ideally address. Be clear from the outset what the intention of the literature review is and what information need it is intended to fill.
2. Consider whether you want to put a date boundary on your search (for instance, limit search to articles from 2005-2013). Similarly, whether you want to limit to Canada, to Canada plus the UK and Australia, to include the U.S., etc.
3. Develop a list of search terms (and expand the list as needed as the search progresses). Implementation team could be helpful in suggesting search terms and subjects.
4. Consider whether to restrict your search to certain fields or to cast expanding nets depending on available information (for instance limit search to youth mental health, or expand and include literature on public health, or even broader to general health, etc.).
5. Accessing formal databases is expensive. Having a student involved is helpful as they can access databases through their university library. Members of PART Ontario also can get access to some journals.

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Assess your findings

1. It is difficult to find clear answers in the literature to many of the questions child and youth mental health agencies have. Sometimes we have to use various “grades” of evidence and this can make it hard to draw firm conclusions. See “Types of Study You May Find” on page 9.

2. In terms of a general hierarchy, it can help by searching for systematic reviews, meta-analyses and controlled trials (can use as search terms, or filter in search databases).
3. Scan the abstract, then the conclusion/discussion, if the article appears relevant go into the methodology to get a feel for how strong a paper it is.

#### Summarize your findings

1. Can use a basic annotated bibliography approach (see page 18 for a template). This will help identify the key points you found per source. The final review will knit these individual entries together.
2. Create a summary outline of key concepts. For instance, a problem statement, contextual considerations, limitations to the literature you could find, key themes and concepts found across your sources, unique points, implications, potential conclusions, potential other resources, evaluation and implementation considerations.
  - a. Meet with the implementation team and share this outline. Before writing the review, make sure that everyone is agreed that you're on the right track and the review will cover what it is that needs to be answered.

#### Writing the review

1. Use your outline, as agreed by the team, to structure the final document.
2. Be clear about your perception of the quality of evidence and the limitations. Summarize your search method and search terms.
3. Use a 1-2 page summary of key points or an abstract.
4. Write as little as possible. Write a tight and concise summary, not a master's thesis.
5. Use tables if possible to summarize related articles (author, reference, relevance, study population, outcomes measures, implications).
6. Do not say that more research is needed. Write what you can take from the existing literature, state the implications and findings, leave it at that.

## ONLINE SOURCES

### DATABASES WITH FREE CONTENT

1. Centre for Reviews and Dissemination (CRD) <http://www.crd.york.ac.uk/crdweb/>
  - Information on the effectiveness of treatments and the delivery and organization of health care. Summaries of reviews critique weaknesses of the reviews, in addition to summarizing the key findings.
  - One-stop-shop for access to other databases (e.g., DARE, NHS EED and HTA)
    - DARE: Database of Abstracts of Reviews of Effects
    - NHS EED: National Health Service Economic Evaluation Database
    - HTA: Health Technology Assessment
    - *Click on 'Help' for instructions on how to use the database or start searching using the 'Search' feature at the top of the page*
  
2. Cochrane Database of Systematic Reviews (CDSR) <http://www.thecochranelibrary.com/view/0/index.html>
  - Information about the effects of healthcare available worldwide
  - Produces and disseminates systematic reviews of healthcare interventions  
*Use 'Browse' or 'Search' features or use 'Advanced Search' icon from main page*
  
3. Turning Research Into Practice (TRIP) Database <http://www.tripdatabase.com>
  - Allows health professionals to easily find high-quality clinical evidence to help support evidence-informed practice
  - Also does a parallel search with PubMed
  - *Click on 'Search' or 'Advanced Search' features on the main page*
  
4. The International Network of Agencies for Health Technology Assessment <http://www.inahta.org/>
  - Information related to medical, social, economic and ethical implications of investments in health care
  - Presents overviews of recently published reports (briefings)

- *Click on 'Search Publications' in bottom left corner. May have to follow links to find original research articles versus briefings*
5. British Medical Journal [www.bmj.com/](http://www.bmj.com/)
    - Original scientific articles commenting on the clinical, scientific, social, political, and economic factors affecting health
    - Freely accessible articles have a 'This article is FREE' icon beside their listings
    - *Use 'Search' section at top right corner of main page or click on 'Advanced Search' icon at middle right of page or click on 'Research FREE' at top left of page and follow links*
  6. Directory of Open Access Journals (DOAJ) <http://www.doaj.org/>
    - Access to free, full text, scientific and scholarly journals
    - *Click on 'Find Articles' on left side of main page and begin searching by key words (note: no advanced search option is offered so capability is limited)*
  7. Substance Abuse and Mental Health Services Administration (SAMHSA) <http://www.samhsa.gov/ebpWebguide/index.asp>
    - Connects to websites that contain information about interventions to prevent and/or treat mental and substance use disorders
    - This site links users to websites that provide background information into a particular area; however, these websites do not necessarily offer free full-text research articles
    - *Use the navigation menu on the left side of the main page to browse evidence-based practices by area or by age group*
  8. PubMed Central <http://www.ncbi.nlm.nih.gov/pmc/>
    - Free full-text library of journal articles at the National Institutes of Health

## DATABASES WITH LIMITED FREE CONTENT

1. PubMed <http://www.ncbi.nlm.nih.gov/pubmed/>
  - Available via National Center for Biotechnology Information (NCBI)
  - Provides access to citations from biomedical literature
  - *Click on 'Advanced Search' on top right corner. This enables more search options than main page 'Search' feature on the main page and includes an option to restrict searches to free, full-text articles*
  
2. York University Health Research Guide <http://www.library.yorku.ca/ccm/rg/nk/health.jsp>
  - Lists sites and sources about the social aspects of health (including the sociology of health, psychology of health, health education, health promotion, public policy, and health administration)
  - Majority of sites and sources can only be accessed as a student
  - *Scroll through main page for items/links of interest*

## DATABASES AVAILABLE ONLY BY SUBSCRIPTION

1. PsycINFO – American Psychological Association (APA) <http://www.apa.org/psycinfo/>
  - Scholarly books, journals, and dissertations (2 million+ records)
  - Searches PsycINFO, ARTICLES, BOOKS, EXTRA and CRITIQUE databases (a one-stop shop)
  - Broad access is available by subscription. Limited access is available to users without a subscription:
    - Search PsycARTICLES and PsycBOOKS for free (cost per download)
    - Purchase a 24-hour pass to search PsycINFO, PsycEXTRA, and PsycCRITIQUES (free downloads)
    - *Click on 'Search PsycINFO Now' icon on left side of main page. If you are a non-subscriber, click on 'Search' icon on new page*
  
2. Allied and Complementary Medicine Database (AMED) <http://www.bl.uk/reshelp/findhelpsubject/scitectenv/medicinehealth/amed/amed.html>  
A bibliographic database for complementary ("alternative") medicine, palliative care, and professions allied to medicine

- Available by subscription only
  - Available at various institutions by subscription
  - Available for online searching from your own computer by subscription
- 3. EMBASE <http://www.embase.com/>
  - A biomedical and pharmacological database
  - Available by subscription only (no individual trials available)
  - If you are an individual end-user interested in a trial, EMBASE recommends you ask your institution's librarian to subscribe

### OPEN-ACCESS GUIDELINE DATABASES

Guidelines are a rich source of evaluated evidence, particularly if the question is on treatment or diagnosis of a relatively common medical condition.

1. UK National Electronic Library for Health Guidelines Finder <http://www.evidence.nhs.uk/>
2. US National Guideline Clearing House at <http://www.guidelines.gov>
3. Guidelines International Network (GIN) at <http://www.g-i-n.net>
4. BMJ Publishing Group's *Clinical Evidence*  
<http://www.clinicalevidence.org/ceweb/conditions/index.jsp>



## TIPS FOR SEARCHING DATABASES

### HOW TO SEARCH ONLINE DATABASES

It is important to understand how a specific database's search function works in order to be able to find the sources you are looking for. Although not all online sources adhere to the same searching rules, the following are general guidelines for searching online databases.

1. Use key words from your question as search terms – databases sort articles using relevant terms from the article:
  - Use synonyms for your terms (e.g., adolescent, teenager, youth)
  - Use quotation marks to group terms together in searches (e.g., “cognitive behavioural therapy” OR “cognitive behavioral therapy”)
  - Truncate words (remove the ending and replace with an \*). The database will search for all variations of the term (e.g., chil\* would represent child, children and childhood)
  - Use a thesaurus to find headings under which various keywords are grouped (e.g., in PsycINFO “meditation” also accesses articles with the key words “mindfulness”, “relaxation therapy” and “alternative medicine”)  
Combine search terms to narrow your search using operators such as 'and', 'or' and 'not' (e.g., eating AND disorder OR illness)
2. Use restrictions to refine the search
  - A clearly defined patient group and intervention are the major factors in most subject searches. Other concepts, though necessary in the *question* itself, are not always stated in the search
  - E.g., the comparator is often “usual care” or “no treatment” and does not need to be included in the search. Outcome information is often better located by limiting to a particular study design  
An understanding of simple search terms that can be combined in various ways is vital to creating a specific and sensitive search string
3. Search by author, journal title, etc.

## TYPES OF STUDIES YOU MAY FIND

Study Type	Description	What it Assesses
1. Systematic review	<ul style="list-style-type: none"> <li>▪ A critical evaluation of research studies that attempt to address the same focused question.</li> <li>▪ Provides strong evidence when the studies included have good-quality designs and large sample sizes</li> <li>▪ A systemic review is called a meta-analysis when data across studies is pooled to provide an estimate of overall treatment effect</li> </ul>	<p>Effectiveness of treatments/interventions (e.g., are intervention programs effective in the prevention of eating disorders in children and adolescents?)</p> <p>Source: Pratt, B.M. &amp; Woolfenden, S.R. (2002). Interventions for preventing eating disorders in children and adolescents. <i>Cochrane Database of Systematic Reviews</i>, 2. Retrieved September 18<sup>th</sup> from Cochrane database.</p>
2. Randomized controlled trial	<ul style="list-style-type: none"> <li>▪ A scientific experiment that randomly assigns participants to a treatment group, to a non-treatment group, or to an alternative treatment group</li> <li>▪ The aim of the trial is to determine the treatment's effect</li> </ul>	<p>Effectiveness of treatments/interventions (e.g., do females with body dissatisfaction enrolled in a dissonance-based eating disorder prevention program show reduced eating disorder risk factors)</p>

		<p>compared to females in other prevention programs?)</p> <p>Source: Stice, E., Shaw, H., Burton, E., &amp; Wade, E. (2006). Dissonance and healthy weight eating disorder prevention programs: a randomized efficacy trial. <i>Journal of Consulting and Clinical Psychology, 74</i>(2), 263-275. Retrieved September 18, 2008, from PubMed database.  <a href="http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1479305">http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1479305</a>)</p>
3. Quasi-experimental design	<ul style="list-style-type: none"> <li>▪ Similar to a randomized control trial and shares the same aim; however, subjects are not randomly assigned to treatment groups</li> <li>▪ Instead, 'naturally occurring' participant groups that are matched on key characteristics are used to study a treatment's</li> </ul>	<p>Effectiveness of treatments/interventions</p> <p>E.g. Are youth in urban areas more likely to achieve better eating disorder treatment outcomes than youth in rural areas?</p>

	<p>effectiveness</p> <ul style="list-style-type: none"> <li>Without randomization, the study cannot account for all factors which may affect results</li> </ul>	
4. Evaluation studies with non-experimental designs	<ul style="list-style-type: none"> <li>Similar to a quasi-experimental design where naturally occurring groups are used to evaluate the effectiveness of a treatment; however, there is no control/comparison group, no multiple measures, and/or no pre-intervention matching of groups</li> <li>Unable to determine if the intervention is responsible for any change in outcome, although many studies replicating results may suggest a treatment is effective</li> </ul>	<p>Effectiveness of treatments/interventions</p> <p>E.g. Does a mass media healthy body image campaign affect levels of eating disorders among female teenagers compared to pre-campaign levels?</p>
5. Case-control studies	<ul style="list-style-type: none"> <li>Aim is to identify risk factors for a particular condition</li> <li>Compares a group of individuals with a particular problem and 'matches' them with controls who are similar</li> </ul>	<p>Risk factors</p> <p>E.g. What are the risk factors associated with females developing eating disorders in adolescence?</p>

	<p>but do not have the same condition</p> <ul style="list-style-type: none"> <li>▪ Compares the exposure of the two groups to possible causes</li> <li>▪ Limited in that there may be factors not measured that create the difference between groups</li> </ul>	
6. Cohort studies	<ul style="list-style-type: none"> <li>▪ A longitudinal study that collects information from a group of participants at set periods over time</li> <li>▪ Limited in that there may be factors not measured that create differences between participants in the group</li> </ul>	<p>Associations between early development and experiences, and later outcomes (e.g., what are the predictors of new eating disorders in an adolescent cohort?)</p> <p>Patton, G.C., Selzer, R., Coffey, C., Carlin, J.B. and Wolfe, R. (1999). Onset of adolescent eating disorders: population based cohort study over 3 years. <i>British Medical Journal</i>, 318, 765-768.</p>
7. Population surveys	<ul style="list-style-type: none"> <li>▪ A total or sample of a population is asked to provide responses to questions on a topic of interest to the data collector (e.g., a census)</li> </ul>	<p>Prevalence of problems</p> <p>E.g. How common are eating disorders amongst female adolescents in Ontario?</p>

8. Qualitative research	<ul style="list-style-type: none"> <li>▪ Concerned with why and how individuals behave</li> <li>▪ Often studies people in their natural settings</li> <li>▪ Methods include observation, interviews, focus groups, reading primary documents (e.g., diaries)</li> </ul>	<p>How people vary in different circumstances, and why?</p> <p>E.g. What do female adolescents with eating disorders value in cognitive-behavioural therapy?</p>
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## TIPS FOR ASSESSING SOURCES

### WHAT TO CONSIDER WHEN SELECTING SOURCES

#### 1. *Relevance*

- Does the article title sound like the study contains the information you are looking for?
- Use the abstract to decide whether or not the article contains the desired information. *(Note: do not rely on an abstract to be a summary as you have to read the whole article to be certain of its relevance)*
- Is the article peer reviewed?
- Is the study original? Who is the study about?
- Is your target group so different from the one in the study that the results may not apply?
- Are the claims made by the study plausible?
- Have the authors addressed all outcomes of interest?
- What does the study add to what you already know?

#### 2. *Purpose*

- Have the authors clearly explained the purpose of the study, how it was carried out, and the results?

#### 3. *Method*

- Is the study design appropriate? Do the question, method, and analysis of results match up?
- Is the sample appropriate?
- If a comparison group was used, was it really comparable to the group receiving the intervention?
- Did some people 'drop out' of the study, and if so, have the authors accounted for this in their conclusions?

#### 4. *Results*

- Are the research questions clear, specific, and answerable?

- Is the material presented in a way that is transparent and detailed in a way that can be easily examined and evaluated?
- How large is the effect of the intervention, if there is one?
- How precise is the estimate of the effect?
- How likely is it that the result was due to chance?

#### 5. *Conclusion*

- Have the authors clearly shown how they came to their findings?
- Does the author explain study limitations?
- Do the conclusions match the findings?
- Are the conclusions supported by the analysis?

#### 6. *Bias*

There are often strict rules in place to prevent author bias or funder interference from affecting the research; however, when evaluating a source it is still useful to be aware of the author's credentials (i.e., are the authors associated with the field of study? Do they have relevant clinical experience?) and where the funding for the study came from (i.e., publicly funded, pharmaceutical company, etc.)



## TIPS FOR PRESENTING FINDINGS

### HOW TO SUMMARIZE FINDINGS

- What are the most relevant sources?
- What is common across sources?
- What is unique among sources?
- What are the key ideas/concepts being conveyed?
- Why would this be important?
- What are the limitations/gaps in the literature? (*Note: this is particularly important because it speaks to your contribution to the literature – i.e., your work may help fill this gap*)

### TIPS FOR WRITING THE LITERATURE REVIEW

- Establish the goals of the review
- An effective way of organizing the review is to follow the “point-proof-comment” approach
  - State a key point that supports your argument
  - Follow with evidence from the literature that supports your point
  - Provide analysis that expands upon your key point and supporting evidence from the literature, thereby enhancing your argument
- Beware of grammatical errors
  - Use the right word in the right place
  - Avoid awkward, rambling and run-on sentences
  - Avoid sentence fragments
  - Avoid using terms like “we” and “us” without stating who these terms represent
  - Write clearly and concisely
  - Avoid generalizations and common writing errors
  - Always use examples or statements to substantiate your point
- Make sure to edit your paper thoroughly and to get someone else to edit it as well

## THE EVIDENCE TO PRACTICE PROCESS



### Start with a plan...

1. What is the problem we need to solve?
2. What is the question we need answered?
3. Select first choice resource where an answer may be found (e.g. Cochrane Library)
4. Design search strategy and carry out search.
5. Appraise and summarize the evidence
  - If there is good evidence, then
    - Assess the relevance of the evidence to your local situation and target groups
    - Consider implications for your practice and resources and those of the organizations you work with
    - Appraise and summarize the evidence
    - Evaluate your practice
      - Is there improvement?
      - If there is no improvement then return to step 1 – What is the problem we need to solve?
  - If there is poor or insufficient evidence, then
    - Select second choice of resource
    - Return to step 4 – Design search strategy and carry out search

Adapted from © 2003, Evidence Network: What works for children?

## Template for writing an annotated bibliography

Title of book or article
Citation (APA format)
Link (if available; PubMed if not)
Abstract: copy and paste
<p><b>Why I think it's interesting:</b></p> <ol style="list-style-type: none"> <li>1. The key findings</li> <li>2. Implications of the research for the topic we're addressing</li> <li>3. How it is otherwise useful</li> <li>4. Etc.</li> </ol> <p>(1-2 paragraphs or point form is fine)</p>
Caveats/concerns/limitations of the research (if any)
Recommended for: who might be interested in reading the source