

Literature review

Arun Kumar Rajasekaran

To start with,

It's actually a hard process of

- Formulating the research question(s) and objective(s),
- Searching the extant literature,
- Screening for inclusion,
- Assessing the quality of primary studies,
- Extracting data, and
- Analyzing data.

1. Start with research databases

Scopus and Web of Science are good databases to start with for any research topic and literature review.

- [Scopus](#)
Scopus is a large multidisciplinary database covering published material in the humanities and sciences. It also provides citation analysis of authors and subject areas.
- [Web of Science - Core Collection](#)
The leading citation index' of scholarly literature, chemical reactions and author information.

1. Start with research databases

But there exists a lot more,

PubMed

CINAHL

Web of Science

Embase

Medline

PsycINFO

Scopus

Cochrane Library

Cochrane Central Register of Controlled Trials

<https://guides.library.harvard.edu/meta-analysis/databases>

For someone absolutely new to database searches

<https://app.sidecarlearning.com/tutorials/scopus>

Specific databases / Supplementary searches

1. Discipline / subject oriented



Specific databases / Supplementary searches

2. Grey (gray) literature

Grey literature is research published outside of commercial or academic publishing. Grey literature might not look like a traditional book or article. You may find it in the form of a PDF or report, for example, but the information included should still be high quality.

Gray Literature

Examples of grey literature include:

- Government reports
- Policy statements and issues papers
- Conference proceedings
- Pre-prints and post-prints of articles
- Theses and dissertations
- Research reports
- Geological and geophysical surveys
- Maps
- Newsletters and bulletins
- Fact sheets

Who makes grey literature?

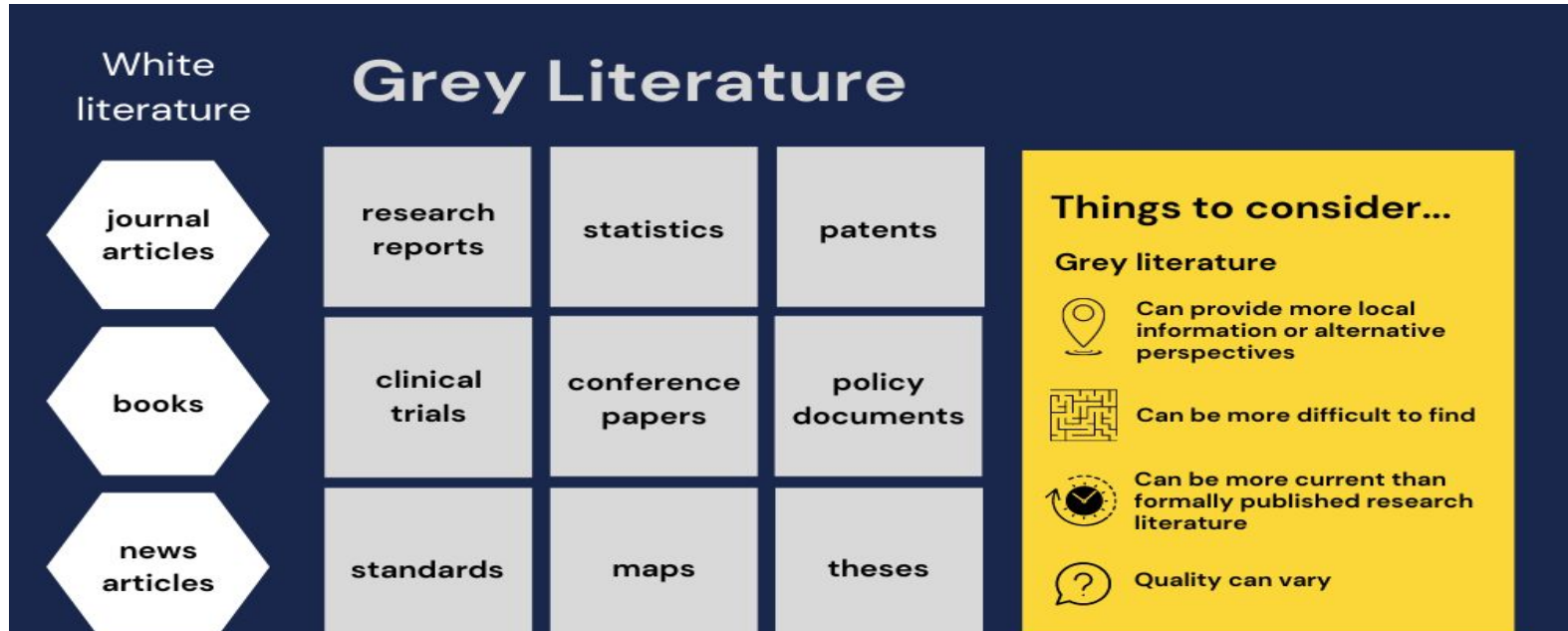
- Industry bodies
- Private companies
- Government bodies
- Pressure or activist groups
- Academics and Higher Degree Research students

Why use grey literature?

Grey literature is an excellent source of recent research in many disciplines.

Industry and government bodies often produce grey literature and make it available online faster than other publication types.

It's important to check grey literature, like theses and dissertations, to see what research other people are producing in your field.



Finding grey matter

- Advanced google searches (say .gov, .edu etc)
- Grey source (GrayNet - GreySource provides examples of grey literature to the average net-user and in so doing profiles organizations responsible for its production and/or processing. GreySource identifies the hyperlink directly embedded in a resource, thus allowing immediate and virtual exposure to grey literature.)
- GreyMatters tools (ex. <https://cadth-login.wicketcloud.com/login?service=https%3A//www.cadth.ca/casservice%3Fdestination%3D/user/login%253Fdestination%253D%25252Fgrey-matters-practical-tool-searching-health-related-grey-literature>)
- Institutional repo (ex. IRIS, WHO)

Evaluating literatures (gray/general)

- Consider the author, their affiliations and qualifications.
- Check reference lists to see who and what other material has been taken into account.
- Any data collection methods and analysis should be transparent.
- Examine literature reviews in theses to track search strategies and assess possible biases.
- Check the date and currency of any information and try to find an update if it is older.
- Check the dates of references to make sure the authors aren't relying on out-of-date information.

PROMPT

P	Presentation Poor presentation and inappropriate or confusing use of language can hinder your use of content. Try not to let poor presentation stop you from using what might otherwise be good quality, relevant information.
R	Relevance Relevance is not a property of the information itself, but rather of its relationship to the need you have identified. Consider geography, level and the emphasis of the content.
O	Objectivity All information is presented from a position of interest, although this may not be intentional. You need to be aware of possible bias in what you read, and to take account of this when you interpret the information.
M	Method (research reports only) Do not assume that because a research report has been accepted for publication, it is error free. You need to assess the accuracy of information produced as a result of using particular methods.
P	Provenance The 'credentials' of a piece of information support its status and perceived value. It is important to be able to identify the author, sponsoring body or source of your information.
T	Timeliness Timeliness is an aspect of relevance. You need to be aware of the date of production or publication, and assess whether this has been superseded, or is still useful to your needs.

Question

What causes neo mortality ?

Time - 10 mins

Expectations:

- 5 Major reasons cited
- Any uncommon/interesting reasons

Dealing with Anisotropy

Dealing with Anisotropy

1. Use multiple sources

This means not relying on one database, website, or library, but exploring different options and platforms.

For example, you can use academic search engines, such as Google Scholar, Scopus, or Web of Science, to find peer-reviewed articles and citations.

You can also use subject-specific databases, such as PubMed, PsycINFO, or ERIC, to find literature related to your discipline or topic.

Additionally, you can use library catalogs, reference lists, bibliographies, and citation tracking tools to find books, reports, and other sources.

Dealing with Anisotropy

2. Evaluate your sources

This means checking the quality, credibility, and relevance of the information you find.

You can use various criteria to evaluate your sources, such as the author, the publisher, the date, the purpose, the evidence, and the bias.

You can also use tools such as the CRAAP test or the CARS checklist to help you assess your sources.

Evaluating your sources will help you select the best literature for your research and avoid unreliable or outdated information.

Search tracking

Softwares

Or Excel should do

(Example excel template online)

<https://tr.uow.edu.au/uow/file/13fd247b-e4f0-4783-8b50-c7c07685f85b/1/SearchTracker.xlsx>

Adapt your search and keep trying

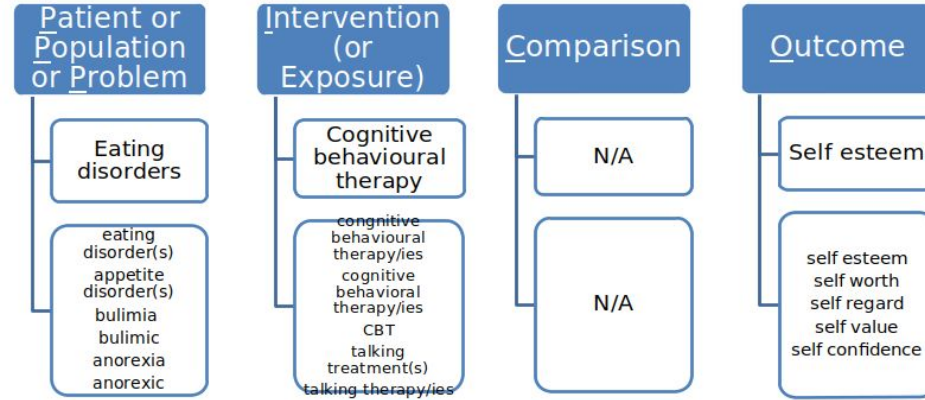
Searching for information is a process and you won't always get it right the first time. Improve your results by changing your search and trying again until you're happy with what you have found.

Search tracking

Planning the search (PICO)

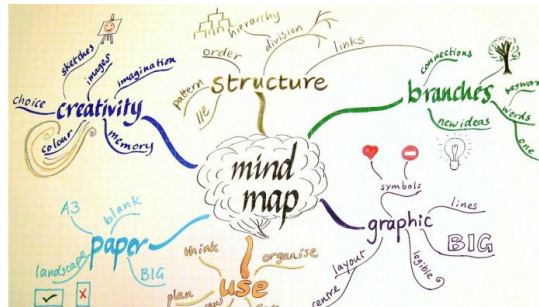
Can cognitive behavioural therapy improve self esteem in patients with eating disorders?

PICO



You may be able to think of more synonyms. Just make sure you stick the concept closely. If you are too broad, you may warp your results.

MINF MAP



Search words

1. Search for different word endings

Truncation *

The asterisk symbol * will help you search for different word endings.

E.g. *teen** will find results with the words: teen, teens, teenager, teenagers

Specific truncation symbols will vary. Check the 'Help' section of the database you are searching.

2. Search for common phrases

Phrase searching “.....”

Double quotation marks help you search for common phrases and make your results more relevant.

E.g. “*physical activity*” will find results with the words physical activity together as a phrase.

Search words

3. Search for spelling variations within related terms

Wildcards ?

Wildcard symbols allow you to search for spelling variations within the same or related terms.

E.g. *wom?n* will find results with women OR woman

Specific wild card symbols will vary. Check the 'Help' section of the database you are searching.

4. Search terms within specific ranges of each other

Proximity w/#

Proximity searching allows you to specify where your search terms will appear in relation to each other.

E.g. *pain w/10 morphine* will search for pain within ten words of morphine

Specific proximity symbols will vary. Check the 'Help' section of the database you are searching.

Organizing literature

Once you have found the best literature for your research, you need to organize it in a systematic and efficient way. This means keeping track of your sources, summarizing and synthesizing them, and creating a reference list.

You can use various tools and methods to organize your literature, such as citation managers, such as Zotero, Mendeley, or EndNote, to store and manage your sources. You can also use software such as NVivo, Atlas.ti, or MAXQDA, to code and analyze your sources. Organizing your literature will help you save time, avoid plagiarism, and prepare for writing your literature review.

Update your literature

Finally, finding the best literature for your research is not a one-time task, but an ongoing process. This means updating your literature regularly and staying on top of new developments and publications in your field of study.

You can use various tools and techniques to update your literature, such as alerts, RSS feeds, newsletters, podcasts, blogs, and social media. Updating your literature will help you keep your research current, relevant, and innovative.