2.6.5 Search strategy

This section details how the reviewers plan to search for and locate relevant studies. The process describing searching has been standardized in JBI SUMARI and is illustrated below. A systematic review should consider papers published by both commercial and academic publishers as well as grey literature. Rather than compete with the published literature, grey literature has the potential to complement and communicate findings to a wider audience. Grey or Gray literature is also known as Deep or Hidden Web material may include: Theses and Dissertations, Reports, blogs, technical notes, non-independent research or other documents produced and published by government agencies, academic institutions and other groups that are not distributed or indexed by commercial publishers. Systematic literature searching for qualitative evidence presents particular challenges. Some databases lack detailed thesaurus terms either for qualitative research as a genre or for specific qualitative methods. Additionally, changes in thesaurus terms mean that reviewers need to be cognizant of the limitations in each database they may use. The help of an experienced research librarian/information scientist is recommended.

The time frame chosen for the search should be justified and any language restrictions stated (e.g. only studies published in English will be considered for inclusion). The databases to be searched must be identified listed, including the search platform used where necessary, along with a completed search strategy for one major databases which should be presented as Appendix I of the review protocol.

The search strategy is described as a three-phase process:

**Phase one** consists of two steps:
1. the identification of initial key words based on knowledge of the field to perform an initial search where the reviewer creates a logic grid of key words from titles and abstracts; and
2. the analysis of text words contained in the titles and abstracts of papers, and of the index terms used in a bibliographic database to describe relevant articles in order to build comprehensive and specific search strategy for each included database.

**Phase two** involves implementing database-specific searches for each database included in the protocol.

**Phase three** involves the review of the reference lists of all studies that are retrieved for appraisal to search for additional studies.

The process describing searching has been standardized in SUMARI as follows:

The search strategy will aim to find both published and unpublished studies. An initial limited search of MEDLINE and CINAHL has been undertaken followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe article. This informed the development of a search strategy which will be tailored for each information source. A full search strategy for #name the relevant database# is detailed in Appendix 1. The reference list of all studies selected for critical appraisal will be screened for additional studies.

**Information sources:**

The databases to be searched include:

Insert databases here

The search for unpublished studies will include:

Insert sources here

This standardized text is editable, and includes fields for reviewers to specify content relevant to their available resources. As mentioned, reviewers are required to state the databases to be searched and, if including unpublished studies, what sources will be accessed. An additional paragraph that addresses whether hand searching will be conducted, which sources will be subject to hand searching (e.g. the searching of journals that are not indexed in electronic databases), should be added to the review protocol as part of Phase 2 if required. The search strategy should also describe all limitations to the scope of searching in terms of dates, resources to be accessed or languages. Each of these may vary depending on the nature of the topic being reviewed, or the resources available to the review team.

**Limiting by date:**

Limiting the search by date may be used where the focus of the review is on a more recent intervention or innovation. However, potentially relevant studies as well as seminal, early studies in the field may be missed if the limit set is too recent thus date limits should be used in an informed way, based on knowledge of key papers relevant to the review question that must be cited to provide evidence for the decisions made to limit the search.

**Limiting by resources accessed:**
Limiting the search to a small number of databases is a hot topic in systematic review searching. The validity of systematic reviews relies in part on access to an extensive range of electronic databases for literature searching. There is inadequate evidence to suggest a particular number of databases, or even to specify if any particular databases should be included. The comprehensiveness of searching and the documentation of the databases searched is a core component of the systematic review’s credibility.

Limiting by language:

Limiting by language is a common practice in settings with lack of ready access to translators. The caveat associated with excluding papers based upon language is that important cultural contexts or findings may be missed. The exclusion of selected languages also means the review audit trail is incomplete. If limiting by language is required, it is preferable to search inclusively, and keep a record of numbers of studies per language group. This allows the reader to identify how many studies have been identified, but are not included, therefore promoting transparency in the process.

Alternatively, many papers in languages other than English are abstracted in English, from which reviewers may decide to retrieve the full paper and seek to collaborate with other entities regarding translation.

Therefore, literature searching should be based on the principle of comprehensiveness, with the widest reasonable range of databases that are considered appropriate to the focus of the review.