Literature Searching

A literature search is an important part of the research process, summarising current knowledge and informing future research. It should identify the amount and quality of work that has already been carried out in the topic area. The search can either be general: identifying any relevant work, or it can be more specific which requires a systematic and comprehensive search of the literature to identify what area have already been investigated, highlight new ways of investigating the problem and provide a theoretical basis of the research question, as well as ensuring the proposed research is based on hypotheses supported by sufficient evidence. Whilst a time consuming process a properly constructed literature search will ultimately save time, helping the researcher avoid design errors, identify validated instruments that could be used and highlight data analysis methods.

An important point for researchers to note is that literature reviews should be selective and critical; simply producing a list of works with no evidence that they have been evaluated or are relevant to the proposal is a waste of the researchers and reviewers time.

Before starting the process of literature searching a number of steps need to be undertaken.

1. **Develop the research question**
   This needs to be clearly defined: any hypothesis the research method rests on must be made explicit.

2. **Choose the right database**
   You will probably need to use databases such as MEDLINE, Psychlit, CINAHL, Cochrane Database of Systematic Reviews, Ovid Nursing Collection, Ovid Core Biomedical Collection or Embase.

3. **Define the terms and concepts**
   Break down your research question into distinct concepts that can be searched for separately. E.g. Does exercise lower blood cholesterol?

4. **Combining terms**
   Once the individual terms have been searched they can then be combined using the words AND or OR.
   This will allow you to enhance your search by combining you search in a number of different ways. This gives you the advantage of narrowing your search – if you initial search comes up with 1000+ ‘hits’ by combining the sets allows you to narrow your search and makes it more manageable.

Combining the terms using the word **AND** will retrieve articles that mention both terms
Using **OR** will retrieve articles that mention either subject- This will broaden the search and retrieve more records.
Using the term **NOT** to combine terms will retrieve articles containing the first term but not the second (this term is seldom used).

If you are undertaking a complex search you can combine sets in stages. Combining two or three at a time and then combining the result of these with other sets.

**Searches can be limited in a number of ways**
- English language only
- Study type e.g. randomised controlled trial
- Date
- Age group
- Gender
- Author
- Establishment / organisation
The facility for literature searching is available in the Postgraduate medical Library. Via the library you can apply to use the Ovid Biomed service provided by Project Access 2 that allows you access to literature searching databases via the Internet and therefore anywhere where you have access to the Internet. For further information and an application contact Peter, the Librarian, in the postgraduate library Hillingdon Hospital.

Conclusion

Literature searching is not a simple task. It is time consuming and needs planning, however it is a skill that improves with practice. When undertaking a literature search the aim is for it to be both sensitive (proportion of relevant studies your search retrieved) and specific (proportion of all studies retrieved by your search that are relevant).

Useful Health Information Sources

*HILO (Health information for London on line) - KA24
The KA24 is a project available to all NHS Staff in London that allows them access to the main databases on line. All you have to do is fill in a form in your local postgraduate library and they will send you your user name and password so that you can do you literature searches by accessing the Internet. – for further information contact the post graduate centre librarian

CINAHL
A database of nursing and allied health literature, with records from 1982 onwards, including citations from 950 journals and publications.

*Cochrane Library
An electronic publication designed to supply high quality evidence to inform people providing and receiving care, and those responsible for research, teaching, funding and administration at all levels.  
http://hiru.mcmaster.ca/cochrane/cochrane/cdsr.htm

Embase
Database with records available from 1980, containing citations from 3500 journals

Medline
Bibliographic database of health care research. Its records start from 1966 onwards, with citations and abstracts from 3700 journals.

*National Research Registrar
The NRR is a registrar of ongoing and recently completed research projects funded by or of interest to the National Health Service.  
http://www.doh.gov.uk/research/nrr.htm

*PubMed
This is the national library of medicine’s search service that provides access to over 11 million citations in MEDLINE, PreMEDLINE and other related databases, with links to participating journals.  

*Available on the Internet

If you require further help please contact R&D Office on 01895 – 079021 (Ext 2031).

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