THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

LITERATURE REVIEW

Workshop Prepared for the Reflexology Association of Australia

Presented by

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Overview

- What is a literature review?
- The importance of a literature review
- Approaches to literature review
- Conducting a literature review: an overview of key steps
- Conducting an electronic database search
- Critical appraisal tools

What is a literature review?

- A literature review gives an overview of a field of inquiry. It is a critical and evaluative account of what has been published on a chosen research topic
- What questions are being asked, what has already been said on the topic, who are the key researchers, what are the prevailing theories and hypotheses, what methodologies are employed and key findings to date

- A literature review is more than just a search for information and it goes beyond being simply a descriptive annotated bibliography:
  - Summarise, synthesise and analyse the existing research findings
  - Reveal similarities and differences, consistencies and inconsistencies and controversies in previous studies
  - Identify gaps in research and knowledge

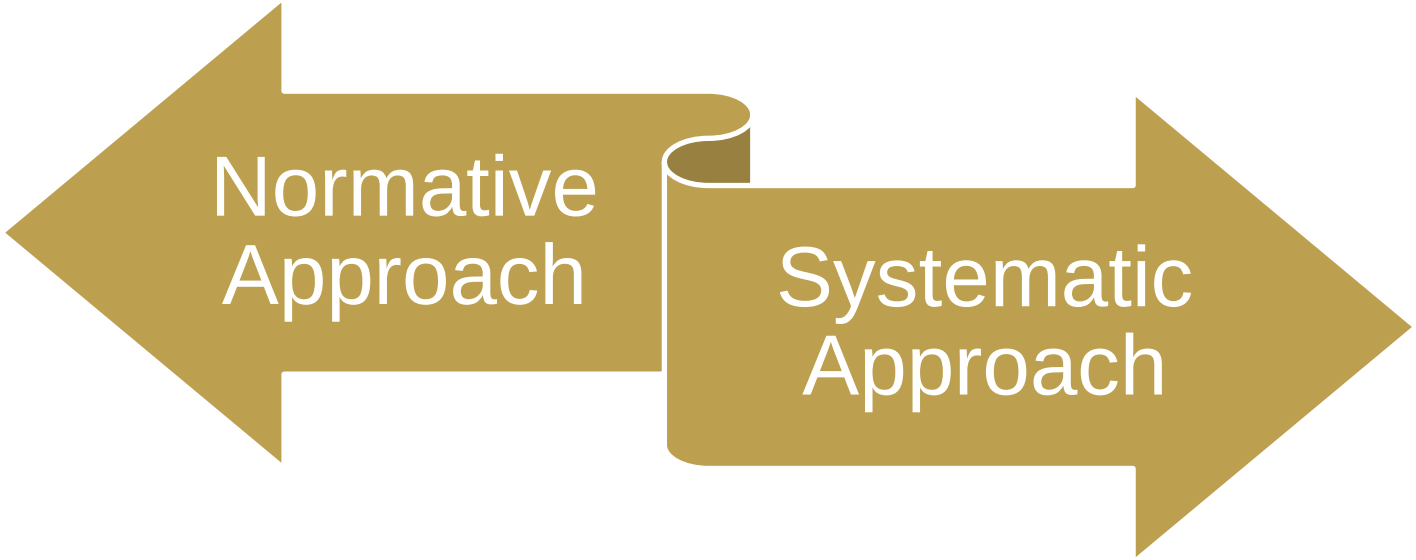
The importance of a literature review

- Evaluate and synthesis existing knowledge
- Research and study (identify research trends and gaps)
- Evidence-based practice
- Analysis of existing research data can lead to new discoveries (e.g. meta-analysis)
- A literature review can be the subject of a research project and a research methodology in its own right.

Approaches to conducting a literature review

- Different disciplines have different approaches to conducting a literature review and different researchers may use different terms (e.g. critical review, integrative review, etc)
- From narrative approach to systematic approach (a continuum):
  - Methods/procedures remain implicit/undefined vs. methods/procedures explicitly laid down and explained

Approaches to Literature Review



The idea of a ‘systematic review’

- A special type of literature review (the most rigorous and systematically produced review)
- ‘A systematic review attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question. It uses explicit, systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings from which conclusions can be drawn and decisions made’

- Following a strict protocol: predefined question, comprehensive search strategy, inclusion and exclusion criteria, systematic report or appraisal tools, synthesis, and meta-analysis (when suitable).
- Cochrane Collaboration established in 1993 specialising in preparing, maintaining and promoting the accessibility of systematic reviews in health care.

- Cochrane Library http://www.thecochranelibrary.com/view/0/index.html
- Not all literature reviews meet the strict requirements of systematic review but a systematic approach has many merits.

Conducting a literature review: An overview of key steps

- Identify a research question
- Design a comprehensive search plan and define selection criteria
- Conduct the literature search and identify suitable studies
- Extract, synthesise and evaluate the research findings
- Draw conclusions and/or make recommendations

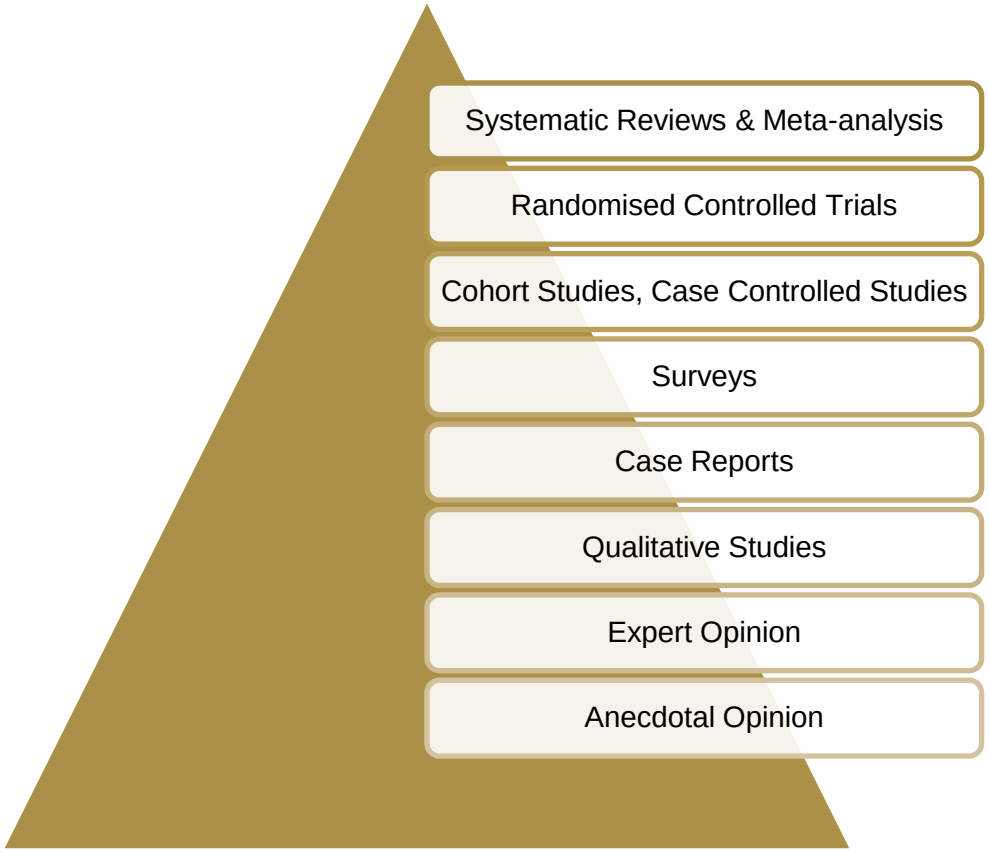
Tips for developing a good research question

- Interesting
- Focused but not too narrow
- Clear and unambiguous
- Address 1-2 key questions only
- Realistic within time frame/literature
- Analyse for concepts
- Add synonyms and related terms

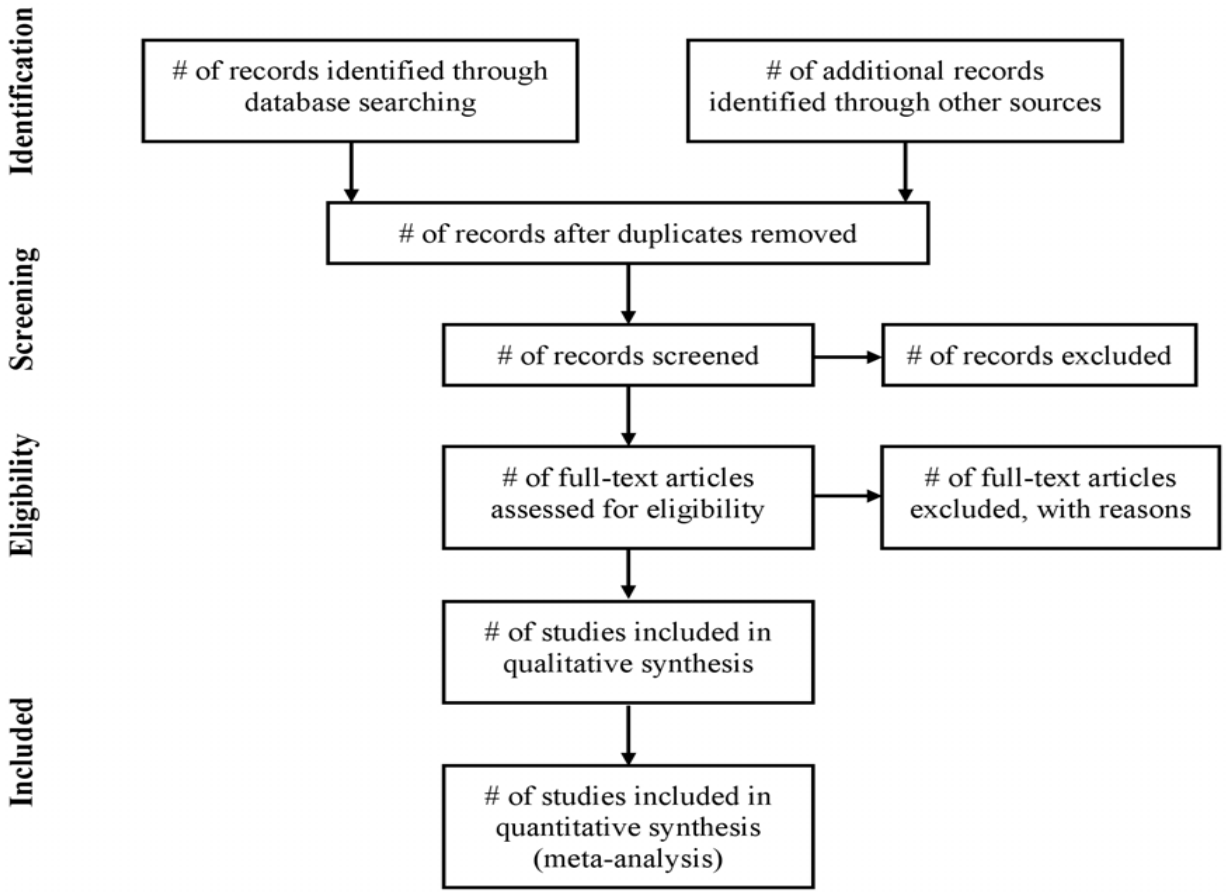
What counts as literature and where to find it?

- ‘Literature’ covers everything relevant that is written on a topic, from books, journal articles, government reports, to theses and dissertations. The key word is ‘relevant’.
- The importance of building a search plan
- Bibliographies and references in key textbooks and recent journal articles
- Indexing and abstracting journals (e.g. MEDLINE, CINAHL)
- Electronic databases

Hierarchy of Evidence



The criteria of inclusion and exclusion



Group Activity

- Identify and refine a research question

Conducting an electronic database search

- Electronic database = ‘a comprehensive collection of information in electronic form and organized for quick retrieval’
- Interface varies widely

Basic Search Procedures

- Selecting database
- Identifying search terms/keywords
- Determining relationship between search terms
- Refining search results
- Saving/exporting findings

Selecting database

- Where to start? http://www.library.uq.edu.au/database/index.php
- Common healthcare/CAM databases: PUBMED, MEDLINE, CINAHL, AMED….
- Free healthcare database that are useful to CAM practitioners:
- PubMed http://www.ncbi.nlm.nih.gov/pubmed/
- NHS Evidence http://www.evidence.nhs.uk/default.aspx
- Scirus http://scirus.com/

Identifying search terms

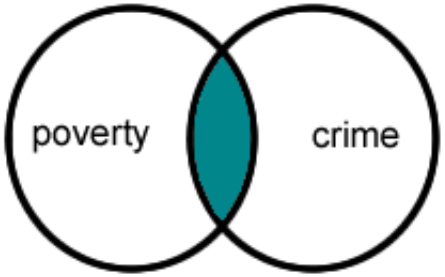
- All possible words/phrases used to describe a subject
- Synonyms (e.g. cancer, malignant tumour, carcinoma)
- Acronyms (e.g. CAM, AIDs, HIV)
- Plural/singular forms (e.g. women, woman)
- Spelling variations (e.g. behaviour, behavior)
- Variations of a word endings (e.g. feminism, feminist, feminine)

Determining the relationship between search terms

- Quotation marks “ ”: search words as a phrase in the exact order you type them
- Boolean operators AND, OR, NOT, and NEAR
- Tell search engines which keywords you want your results to include or exclude, and whether you require that your keywords appear close to each other

AND

- E.g. poverty AND crime

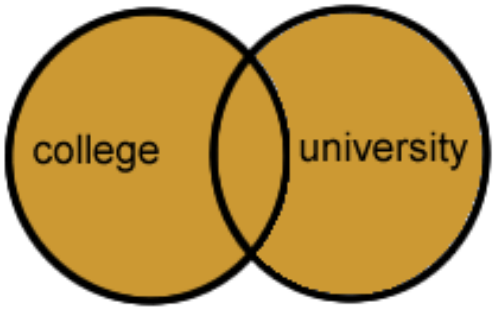


Search terms	Results
poverty	76,342
crime	348,252
poverty AND crime	12,998

- 'AND' narrows your search

OR

- E.g. college OR university

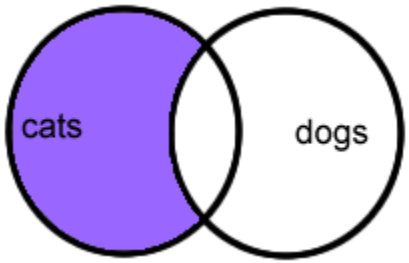


Search terms	Results
college	396,482
university	590,791
college OR university	819,214

- 'OR' broadens your search

NOT

- E.g. cats NOT dogs



Search terms	Results
cats	86,747
dogs	130,424
cats NOT dogs	65,223

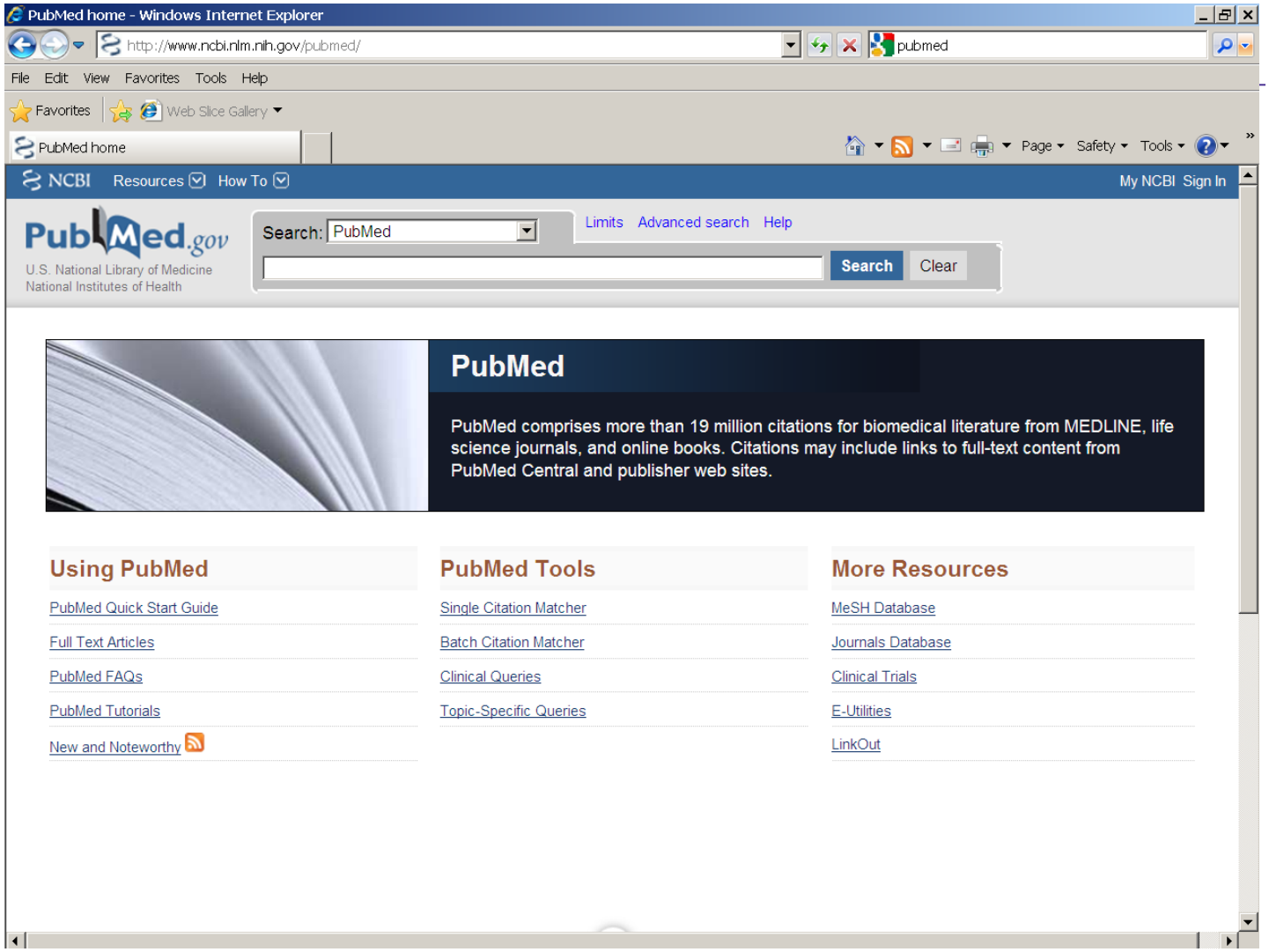
- 'NOT' limits your search

NEAR and Parentheses

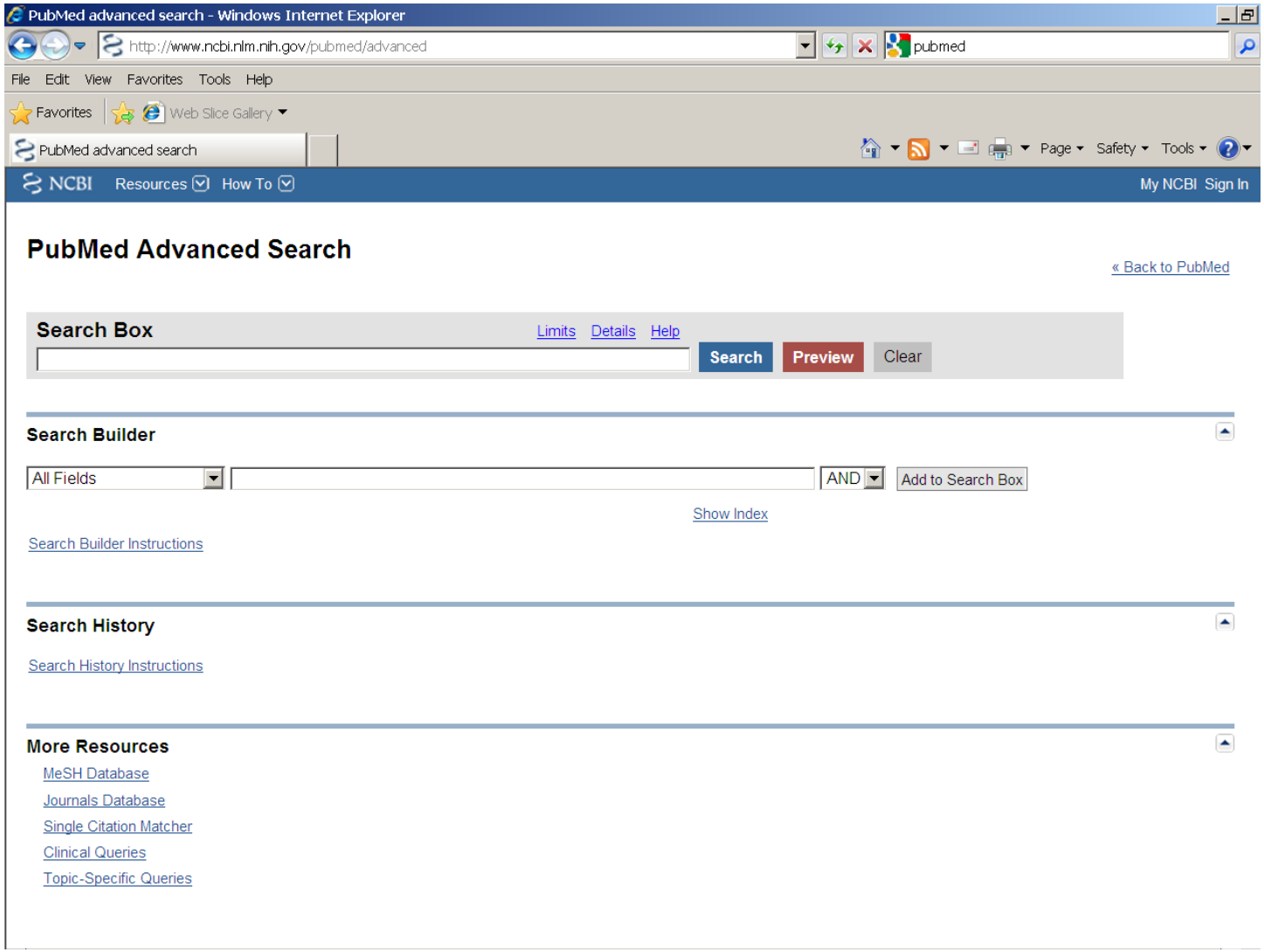
- '*NEAR*' : Requires the term to occur within a certain proximity of the preceding word in the search
- Parentheses or nesting: (satisfaction OR quality) AND "medical practice"

Demonstration using PubMed

- PubMed http://www.ncbi.nlm.nih.gov/pubmed/



- PubMed Advanced Search



- Search result

(reflexology[MeSH Major Topic]) AND cancer[MeSH Major Topic] - PubMed result - Windows Internet Explorer

http://www.ncbi.nlm.nih.gov/sites/pubmed

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(reflexology[MeSH Major Topic]) AND ca...

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(reflexology[MeSH Major Topic]) AND cancer[MeSH Major Topic] Search Clear

Display Settings: Summary, 20 per page, Sorted by Recently Added Send to:

Results: 1 to 20 of 118

<< First < Prev Page 1 Next > Last >>

1. The efficacy of classical massage on stress perception and cortisol following primary treatment of breast cancer.
   Listing M, Krohn M, Liezmann C, Kim I, Reisshauer A, Peters E, Klapp BF, Rauchfuss M.
   Arch Womens Ment Health. 2010 Apr;13(2):165-73. Epub 2010 Feb 19.
   PMID: 20169378 [PubMed - indexed for MEDLINE]
   Related citations
2. To find inner peace: soft massage as an established and integrated part of palliative care.
   Beck I, Runeson I, Blomqvist K.
   Int J Palliat Nurs. 2009 Nov;15(11):541-5.
   PMID: 20081728 [PubMed - indexed for MEDLINE]
   Related citations
3. Integrating massage into cancer care.
   Treitler LK.
   Beginnings. 2009 Fall;29(4):16-7. No abstract available.
   PMID: 20034264 [PubMed - indexed for MEDLINE]
   Related citations
4. [Relaxation... in the hospital!]
   Girard R.
   Krankenpfl Soins Infirm. 2009;102(11):51-3. French. No abstract available.
   PMID: 19994660 [PubMed - indexed for MEDLINE]
   Related citations

Filter your results:

All (118)
Review (22)
Free Full Text (7)

Manage Filters

Titles with your search terms

Partner-delivered **reflexology**: effects on **cancer** pain and anxiety. [Oncol Nurs Forum. 2007]

The conjoint use of music therapy and **reflexology** with hosp [Palliat Support Care. 2008]

Use of **reflexology** foot massage to reduce anxiety in hospitalized **cance** [J Nurs Manag. 2006]

See more...

3 free full-text articles in PubMed Central

Massage therapy versus simple touch to improve pain **and** mood in patients w [Ann Intern Med. 2008]

A novel clinical-trial design for the study of massage therapy. [Complement Ther Med. 2008]

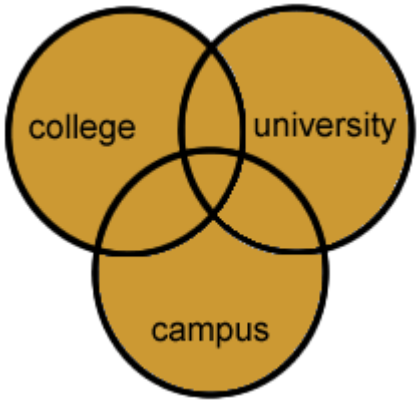
Neurological pictures. Massage of a giant retroperitone [J Neurol Neurosurg Psychiatry. 2006]

Refining search results

- Too few relevant records: search terms may be too restrictive

➢ Try adding another search term with OR

Refining search results



Search terms	Results
college	396,482
university	590,791
college OR university	819,214
college OR university OR campus	929,677

Refining search results

- Too many records: search terms may be not specific enough

➢Try adding another search term with AND

Refining search results

Search terms	Results
poverty	76,342
crime	348,252
poverty AND crime	12,998
poverty AND crime AND gender	1,220

Refining search results

- Changing Fields
- Limit by year, publication type, language, country, etc

- Limits

PubMed limits - Windows Internet Explorer

http://www.ncbi.nlm.nih.gov/pubmed/limits?term=(reflexology%5BMeSH%20Major%20Topic%5D)%20AND

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National Institutes of Health

Search: PubMed Advanced search Help

(reflexology[MeSH Major Topic]) AND cancer[MeSH Major Topic] Search Clear

Limits

Dates

Published in the Last: Any date

Type of Article

- Clinical Trial
- Editorial
- Letter
- Meta-Analysis
- Practice Guideline

Languages

- English
- French
- German
- Italian
- Japanese

Species

- Humans
- Animals

Gender

- Male
- Female

Subsets

Journal Groups

- Core clinical journals
- Dental journals
- Nursing journals

Ages

- All Infant: birth-23 months
- All Child: 0-18 years
- All Adult: 19+ years
- Newborn: birth-1 month
- Infant: 1-23 months

Exporting/saving findings

- Text file, email....
- My NCBI account
- Saving your searches, automatic email updates

Appraising and assessing the quality of research

1. Is the purpose of the study clearly stated?
2. Do the researchers clearly outline the conceptual framework of the study?
3. Is the method selected appropriate to address the research question? Is a rationale provided for using the selected method?
4. Is the sampling strategy appropriate and will the sample represent the target group?

5. Do the researchers provide information about data collection procedures and how they were derived?
6. Do the researchers describe the procedures for keeping data organised and retrievable?
7. What methods of data analysis are used and are they appropriate to address the research question?
8. Is there a clearly explained relationship among research questions, data and conclusions?

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10. Do the researchers describe the procedures for keeping data organised and retrievable?
11. What methods of data analysis are used and are they appropriate to address the research question?
12. Is there a clearly explained relationship among research questions, data and conclusions?

13. Do the researchers address the threats to reliability and validity in data collection, analysis, and interpretation?
14. Do the researchers demonstrate an understanding of the ethical implications of their study?

Conclusions

- Conducting a literature review is a core base skill for all researchers
- Important for research and practice
- Many applications and many review types (all variations on a continuum)
- Further training/skills: NORPHCAM and systematic reviews