NURS 640 - Research for Evidence Based Nursing

ELIZABETH R. BUCCIARELLI
103-G HALLE LIBRARY
EBUCCIARE@EMICH.EDU
734-487-2506
Library Research Support

In-Person Drop-In
- Information & Reference Desk
- Academic Projects Center

Phone - Information & Reference Desk: 734.487.2445

Email - Submit your question and get an email response from EMU librarians

Librarian Subject Specialists appointments-
http://www.emich.edu/library/about/specialist.php - General list of subject specialists

Online Help 24/7 – “Ask a Librarian”
- 24/7, real-time research help is available from EMU librarians and partner librarians from other schools
Support Services for Student Research

ACADEMIC PROJECTS CENTER (APC)
Rm. 116 Halle Library
http://www.emich.edu/apc

UNIVERSITY WRITING CENTER (UWC)
Rm. 115 Halle Library
http://www.emich.edu/uwc
APA Manual Sources


- Reserve Reference at Halle Circulation Desk – BF 76.6 .P82
- https://owl.english.purdue.edu/owl/resource/560/01/
Keeping it Together - The Research Journal

Record, record, record!
- Ideas for topics; track your thinking processes; points of inspiration
- Databases & web sites searched
- Summary of search results
- Track & evaluate successes & failures
- Search strategies
- Keywords, terms, subject headings
- Conversations; People you want to contact

Use it consistently

Electronic bibliographic management tools, e.g., Zotero, RefWorks, EndNote, Mendeley
Developing a Research Topic

Television & other electronic media

Popular journals

Trade magazines

People – personal & professional

Health admin association web pages
  ◦ Hot topics
  ◦ Letters & editorials
  ◦ Trends
  ◦ Law & legislation

Professional newsletters

Encyclopedias

Choosing a Topic –
  ◦ https://guides.emich.edu/help/choosing
Types of Journals

POPULAR

- Slick and attractive in appearance
- Rarely cite sources
- Written by staff or free-lance writers; may or may not list the author
- Language level is simple
- Main purpose is to entertain or to convey general information

Target audience is reading at ~7th grade level
- e.g. People Weekly

SUBSTANTIVE

- May be attractive in format and have pictures and ads
- May cite sources, but usually not
- Articles may or may not be signed by the author
- Language level may be simple, but not necessarily
- Purpose is to provide information to a broad, educated audience
- Target audience is reading at ~12th grade level
- e.g. Time, Newsweek
**Types of Journals, cont.**

**Trade**
- Purpose is to keep a specific industry current re: news, trends, industry changes, people
- Contains advertising focused on the industry
- Pictures, charts, and ads abound
- Articles are normally signed
- No official bibliography at the end of articles
- Trade jargon is used
- ~12th grade reading level
  - e.g., Oncology Nursing News
Types of Journals, cont.

**Scholarly**

- Sober in tone
- Pictures, charts and graphs used only to explain the content of the article, not to entertain
- Sources are **always** cited
- Articles are signed by a scholar or researcher
- Language is elevated and assumes familiarity with the jargon of the discipline
- May be published by a professional organization or university
  - e.g.  **AJN, JAMA, AJOT**
Refereed / Peer Reviewed Journals

- A journal which requires that, prior to publication, submitted articles be approved by a board in order to evaluate the quality, validity, reliability of the article.

- This review process is often done ‘blind’, that is, the reviewers do not know the name or academic affiliations of the authors, and the authors do not know who is reviewing their work.

Check the **journal title** in *Ulrich’s Global Serials Directory*

http://www.emich.edu/library/databases/iadFullList.php?firstCh=U
Nursing Resources - General

- Gale Virtual Reference Library – encyclopedias of medical, nursing, cancer, genetic disorders, alternative medicine, and allied health

- Health Reference Center Academic

- eBook Collections – AccessMedicine, STAT!Ref, R2

- Nursing & Allied Health Collection

- Web of Science & Google Scholar - general & cited reference searching

- WorldCat via FirstSearch
Nursing Databases

- Cochrane Library
- Cumulative Index to Nursing and Allied Health Literature (CINAHL)
- Dissertations & Theses Full Text
- ERIC
- Health and Wellness Resource Center
- Health Reference Center Academic
- Mental Measurements Yearbook
- Nursing & Allied Health
- PubMed/Medline
- PsycINFO
- Social Services Abstracts
- Congress.gov (law & legislation)
- Web of Science & Google Scholar
- Westlaw Campus Research (law, legislation, & news)
Ways to Search a Database

KEYWORD / FREE TEXT SEARCHING

• Most common way to search

• Searches the selected words anywhere in the text of the record

• Searches most fields

SUBJECT HEADING SEARCHING

• Subject headings are words that are used by the database to describe the content of an article or other information.

• Also known as descriptors, headings, or index terms, and they are usually available within each database under links such as "thesaurus," "headings," or "subjects."

• They are the ‘controlled vocabulary’ used to establish order and provide access points for articles & other information.

  e.g. sensory regulatory disorder, sensory regulatory dysfunction, sensory processing disorder, sensory integrative disorder, sensory integration disorder/dysfunction

  SH=sensory integrative dysfunction
Sample Citation/Record

**TITLE:** Using action research to construct national evidence-based nursing care guidance for gerontological nursing

**AUTHOR(S):** Booth J; Tolson D; Hotchkiss R; Schofield I

**AUTHOR AFFILIATION:** Caledonian Nursing and Midwifery Research Ctr.

**SOURCE:** Journal of Clinical Nursing 2007 May; 16(5): 945-53 (42 ref)

**ABSTRACT:** This paper explores the development of a low-cost methodology for constructing nursing-focused evidence-based...

**MAJOR SUBJECT HEADING:** Gerontological Nursing-Scotland; Models, Theoretical; Nursing Practice; Evidence-based-Scotland; Practice Guidelines-Scotland

**MINOR SUBJECT HEADING:** Action Research; Benchmarking; Content Analysis; Focus Groups; Funding Source; Interviews; Program Development

**SUBSETS:** Nursing; Peer Reviewed

**PUBLICATION TYPE:** Journal article; Research; Tables/Charts

**QUESTIONNAIRE/SCALE:** Attitudes Towards Acute Mental Health Scale (ATAMHS)
eBook Collections – Health & Medicine

• All accessible in the library’s catalog & from the *Databases* tab on the Library’s main page ([www.emich.edu/library](http://www.emich.edu/library))

• *AccessMedicine*

• *R2*

• *STAT!Ref*
Cited Reference Searching – Looking Forward & Backward in the Research Literature

• Cited reference searching is a tool to track how a given work is cited by other works, journal articles, books, etc. (https://library.upei.ca/citedrefsearch)

• Begin with a citation for an item you have read and then search for more recent publications that have cited your item

• Help resources for looking backward & forward in the literature
  • Demonstration video: https://emich.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=ee556b44-86ee-4c14-a781-494c993ee095
  • Worksheet- https://guides.emich.edu/ld.php?content_id=38716686

• Databases for cited reference searching:
  ◦ Google Scholar
  ◦ Web of Science
Evidence Based Information Retrieval and Evaluation

• As opposed to...

• **Eminence**-based medicine - lack of, or radiance of, white hair

• **Vehemence**-based medicine - level of stridency

• **Eloquence**-based medicine - smoothness of tongue

Based on the article, and with apologies to, Davis Isaacs & Dominic Fitzgerald, *Seven Alternatives to Evidence Based Medicine*, BMJ, 319, 1999
Definition
Evidence-Based Medicine

- Abbreviated EBM

- “the conscientious, explicit and judicious use of current best evidence in making decisions about the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research” (Sackett D, BMJ, 1996)
Definition

Evidence-Based Practice

- Abbreviated EBP

“the formulation of treatment decisions by using the best available research and integrating this evidence with the practitioner’s skill and experience”

(Stedman’s Dictionary for the Health Professions and Nursing, 2012)
Steps in the Evidence-Based Practice Process

A clinical problem arises
Develop the clinical question
Select appropriate resources**
Evaluate the evidence**
Integrate and apply the evidence
Evaluate your performance with the patient

**Where the library and research skills come into the picture
Steps in Evidence-Based Care

- Form the question
- Seek the evidence
- Assess the evidence
- **What resources do you need? (new)**
- Make the decision and carry it out
- **Who will make the implementation work? (new)**
- Assess the process and repeat the cycle if needed

Paul Glasziou, 2006?
Paula Boddington, 2012?
Types of Research Information

Primary Sources -
Primary research articles report **new** findings & conclusions

Secondary Sources

Tertiary Sources
Definitions

- **Randomized Control Trial (RCT)** — study in which a group of clients are randomly allocated into either
  - an experimental group
  - a control group

- **Practice Guideline** — a description of a process of patient care management that facilitates the improvement or maintenance of health status

  - Purpose is to:
    - Identify preferred treatment
    - Describe treatment alternatives

  - Published by subspecialty or disease-specific experts from authoritative national & international societies & organizations

  - Not all based on experimental studies
Definition
Narrative Review Article

- Not considered evidence
- Also called a narrative review
- In the health and medical literature, this type of article refers to an article which comprehensively scrutinizes a topic over a period of time
- Provides a broad overview of a topic
- The studies included are selected through an implicit process
- May include practical, real-life clinical experiences
- Frequently contains a long list of references in the bibliography
Definitions
Systematic Review

- Summarize large bodies of evidence
- Help to explain differences among studies on the same question
- Apply scientific strategies that limit bias to the selection, critical appraisal and synthesis of all pertinent studies that address a specific clinical question (Cook, Mulrow, Haynes, 1997)

- In a systematic review:
  - Studies are selected through an explicit process
  - Methods of the studies are appraised
  - Results are summarized
  - Key finding presented
  - Limitations of the current knowledge-base on a specific topic are acknowledged
Differences Between Narrative and Systematic Reviews

NARRATIVE REVIEW

- **Clinical Question** - seldom reported, or addresses several general questions
- **Search for Primary Articles** - seldom reported; if reported, not comprehensive
- **Selection of Primary Articles** - seldom reported; if reported, often biased sample of studies
- **Evaluation of Quality of Primary Articles** - seldom reported; if reported, not usually systematic
- **Summary of Results of Primary Studies** - usually qualitative nonsystematic summary

SYSTEMATIC REVIEW

- **Clinical Question** - focused question specifying population, intervention, and outcome
- **Search for Primary Articles** - comprehensive search of several evidence sources
- **Selection of Primary Articles** - explicit inclusion and exclusion criteria for primary studies
- **Evaluation of Quality of Primary Articles** - methodologic quality of primary articles is addressed
- **Summary of Results of Primary Studies** - synthesis is systematic (if quantitative, often referred to as meta analysis)

Definitions

Meta-analysis & Meta-synthesis

- **Meta-Analysis** - a type of systematic review that uses statistical methods to combine and summarize the results of several primary studies (Cook, Mulrow, Haynes, 1997)

- **Meta-Synthesis** – assembles qualitative data to form a new interpretation of the research topic
Definition
Integrative Review

Summarizes past experimental & non-experimental research in order to provide a comprehensive understanding of a problem or phenomenon

Allows for varied perspectives to be represented

The body of literature includes all studies that address related or identical hypotheses

Present the state of science, contribute to theory development, & apply to practice and policy

May be tagged as systematic reviews (CINAHL) or Reviews (PubMed)

-from Nursing Resources – University of WisconsinMadison-Ebling Health Sciences Library http://researchguides.ebling.library.wisc.edu/content.php?pid=325126&sid=4956842
Medical Research Library of Brooklyn
Pyramid of EBP Resources

Increasing evidence strength

SR/MA
• Systematic Review/Meta-Analysis
• Randomized Controlled Trial

RCT

Cohort

Case Control

Cross Sectional

Case Reports and Series

Ideas, Opinions, Editorials

Animal Research

Invitro "test tube" research
Levels of Research Evidence

- **Level I**: Systematic reviews (e.g., Cochrane reviews)
  - Meta-analysis of all relevant randomized clinical trials (RCTs)
  - Evidence-based clinical practice guidelines based on systematic reviews of RCTs
  - Three or more RCTs of good quality that have similar results

- **Level II**: One or two well-designed RCTs

- **Level III**: One or more well-designed controlled trials without randomization

- **Level IV**: One or more well-designed case control or cohort studies

- **Level V**: Systematic reviews of descriptive and qualitative studies (meta-synthesis)

- **Level VI**: Single descriptive or qualitative study

- **Level VII**: Opinions of authorities and/or reports of expert committees

*Additions by E.R. Bucciarelli, 2015

Locating EBP Information

• NURS 640 Research Guide – *Evidence Based Practice* tab

• Agency for Healthcare Research and Quality

• CINAHL and PubMed

• Cochrane Library

• National Guideline Clearinghouse

• *Worldviews on Evidence-based Nursing*
Retrieving EBP Information from CINAHL

- Check the box in front of Evidence-Based Practice on the Limit your results: section

- In the Publication Type menu, limit to:
  - Clinical Trial
  - Meta Analysis
  - Meta Synthesis
  - Practice Guideline
  - Randomized Controlled Trial
  - Research
  - Systematic Review

- Clinical Queries - a pre-set search that limits to specific clinical research areas

- And into your search:
  - qualitative studies – MW Word in Subject Heading
  - quantitative studies - MW Word in Subject Heading

- Check the box for Research Article

- See short video series at:
Retrieving EBP Information from PubMed

- Run your search
- Off the left-hand frame, see *Article Types*
  - Click on *more*...
  - Under that menu, select
    - *Clinical Trial*
    - *Meta Analysis*
    - *Practice Guideline*
    - *Randomized Controlled Trial*
    - *Review*
    - *Systematic Review*
- See short video series at:
- PubMed *Clinical Queries* – a pre-set search that limits to specific clinical research areas
# Evaluating Information – Mnemonics

<table>
<thead>
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<th>A³BCD</th>
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<tr>
<td>◦ Authority</td>
<td>◦ P – Purpose</td>
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<tr>
<td>◦ Accuracy</td>
<td>◦ L – Links</td>
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<tr>
<td>◦ Audience</td>
<td>◦ E – Editorial</td>
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<tr>
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<td>◦ E – ethics</td>
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<td>◦ D - dates</td>
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<td>◦ Format &amp; appearance</td>
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AORN Journal 11/2/02
Research Sites You Can Use after You Graduate

Databases
- Michigan Electronic Library (mel) – mel.org
- Health – http://mel.org/health

Statistics http://guides.emich.edu/c.php?g=188169&p=1242799

Google Scholar

PubMed