Conducting a Literature Review

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Speaker has No Conflict of Interest

- Information based on educational needs of physicians, rigorous scientific evidence from research, or clinical experience, and developed independently of commercial influences.
- No financial relationships to disclose.
- Myself or spouse has/had no related financial relationship for this CME.
Overview

- Introduction
- Formulate a Question
- Organizing and Assessing the Sources
- Writing the Literature Review
Introduction

What is a literature review?
- Synthesis of Researchers' Ideas
- Comparison and Contrasts of Works
- More than a Book Report
- Requires a Critical Review and Assessment
  - Thus, you must understand the sources!
Introduction (cont.)

- Why conduct a literature review?
  - To evaluate existing research
  - To describe others research
  - To identify gaps in the literature
Introduction (cont.)

Why conduct a literature review?

- To add to the literature
- To speak of your own research relative to others work
- To identify ideas, methods, and information relevant to your research
Introduction (cont.)

- Literature Review Search
  - Seek Training from a Librarian on PubMed
  - Go Outside of PubMed
  - Physically Visit the Library
  - Scour the Bibliography
Small Group Activity: Formulate a Question

- Topic: Dating
- One minute to brainstorm and write words associated with the topic
Small Group Activity: Formulate a Question

- Topic: Dating
- Four minutes to write down as many research questions using your brainstorming words (or additional words) related to the topic
Small Group Activity: Formulate a Question

- Topic: Dating
- Choose the best question.
Small Group Activity: Formulate a Question

Discuss the following questions below. Are they researchable? Good questions? Too broad? Too narrow?

- How many dates does the average married couple have per year?
- Does dating create intimacy?
Small Group Activity: Formulate a Question

Discuss the following questions below. Are they researchable? Good questions? Too broad? Too narrow?

- How many dates does the average married couple have per year?
  - To narrow; can be answered with one statistic.
- Does dating create intimacy?
  - To broad; how are we defining intimacy?
  - What methodology will be used?
  - What population?
  - Is number of dates relevant? Etc.
Small Group Activity: Formulate a Question (cont.)

- Does the question truly spark your interest?
- What information is required to answer the question?
- Who will you need to research?
- Will you be able to answer the question fully?
Small Group Activity: Formulate a Question (cont.)

- Is the question easily researchable?
- Is there enough information about the question?
- Is there too much information about the question?
Small Group Activity: Formulate a Question (cont.)

- Will you have access to sources?
- What resources will be required?
- Will anything need to be measured and how?
Formulate a Question

- Does the question truly spark your interest? If no, choose another question. Research takes too long to be doing something uninteresting!

- What information is required to answer the question? If getting information is difficult the process will be prolonged!

- Who will you need to research? Make sure you have access!

- Will you be able to answer the question fully? Shallow research may result in failure to publish.
Formulate a Question (cont.)

- Is the question easily researchable? If not, completion is going to be very time consuming.
- Is there enough information about the question? If not saying something intelligible will be difficult!
- Is there too much information about the question? There will be problems finishing your research!
Formulate a Question (cont.)

- Will you have access to sources? May not be able to get enough information!
- What resources will be required? Make sure you thoroughly think through all of the resources and access to them; otherwise, you will have problems: design, finishing, answering the question, etc!
- Will anything need to be measured and how? If it can't be measured, the question can't be answered quantitatively!
Small Group Activity: Formulate a Question (cont.)

- With the previous question in mind, you have 5 minutes to revise your question.
Formulate a Question (cont.)

- Use the small group exercise as a tool
- Concise
- Accurate
- Feasible
  - Ask the questions discussed in the previous slides.
- Revise, Revise, Revise Until It's RIGHT!
Organizing and Assessing the Sources

- Organization
- Assessment Questions
Organization

- Consider Index Cards or Spreadsheets. Jot Notes About:
  - Authors
  - Years
  - Methodology
  - Results/Conclusions
Determine Organization
- By Timeline
- By Theme
- By Methodology
Assessment Questions

- What is the inclusion/exclusion criteria?
- Have you chosen mostly primary sources?
- Have you chosen the most relevant articles? Authors?
- Is your search complete?
Assessment Questions (cont.)

- Have you found recent developments?
- Have you found classical sources?
- Was the design and methodology appropriate?
- Have the results been interpreted correctly?
- What are the similarities and differences?
Writing the Literature Review

- Create an Outline
- Structure
Create an Outline

- Identify the major themes.
- Sort notes appropriately.
- Group relationships and ideas as subtopics.
- Avoid long list of subtopics.
- If you cannot decide where something belongs, place it to the side until later or place it in multiple subtopics.
- Your outline is a working draft.
Structure

- Introduction
- Body
- Conclusion
- References
Structure: Introduction

- Problem Statement
- Research Question
- Outline of the Literature Review
Structure: Body

- **Body**
  - Use Your Voice
  - Describe, Compare, and Evaluate Studies
  - Paraphrase vs. Quote
  - Summarize and Synthesize
Body: Use Your Voice

- Come Across Natural
- Keep it Simple (if possible)
- Sometimes Difficult with Technical Information
Body: Describe, Compare, and Evaluate Studies

- **Describe**
  - Not enough to JUST describe
  - Provide study design, theories, hypotheses, results, and conclusions

- **Compare**
  - Research Assumptions
  - Theories and Hypotheses
  - Design Variables
  - Equipment Used
  - Instructions Given
Body: Describe, Compare, and Evaluate Studies (cont.)

- Compare (cont.)
  - Results
  - Interpretations
  - Research Speculations for Future Studies

- Evaluate
  - What are the relevant factors?
  - Strengths
  - Weaknesses
Body: Paraphrase vs. Quote

- Plagiarism
  - The unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one's own original work (www.dictionary.com).
  - DON'T DO IT; Use References!!!
- Most Major Concepts from Others is Paraphrased
- Use Quotes Sparingly; When Necessary
Body: Summarize and Synthesize

- Summarize and Synthesize
  - Concise
  - Articulate
  - Difficulty suggests a lack of understanding
Structure: Conclusion and References

- Conclusion
  - Summarize Major Points
  - Discuss Implications
- References
  - Give Credit Where Credit is Due
  - Double Check References
    - In-text
    - Bibliography
References

- http://wilderdom.com/OEcourses/PROFLIT/Class3LiteratureReview
- http://www.utoronto.ca/writing/litrev.html
- http://dictionary.reference.com/browse/plagiarism