SOCQ121

Session 7

Foundations of Critical Enquiry

How to write a literature review
Review

• Qualities of a good research question:
  • Simple – easy to test
  • Important – useful to humanity
  • Answerable
  • Original

• How many different research methods can you name?

• What is a hypothesis?
Session overview

In today session we look at literature reviews in more depth and specifically explore the construction of a literature review for the next assessment.

How to write a literature review

A step-by-step approach

1. Getting started
2. Searching the literature
3. Be critical
4. Structuring your assignment

NB: This lecture and the exercises are designed to help you with your final literature review assignment
Literature Review:
Getting Started
What Is a Literature Review?

- A literature review is a compilation of previous research publications on a particular topic.
- It provides a synthesis and evaluation of the available primary research.
- Synthesising the evidence seeks to reduce uncertainty.
  - Every year over 2 million articles are published in biomedical journals.
  - Even in specialty areas it is very difficult to keep up to date with all of the relevant new information.
- In these situations reviews assist to summarise the state of current knowledge.
Uses of Literature Reviews

- Literature reviews are commonly undertaken by postgraduate students and researchers to survey the available literature in a field and help define a field of research investigation or a research question.

- Literature reviews can also be used to draw conclusions about existing knowledge in a particular area - meta-analyses and systematic reviews.

- In practice, literature reviews are limited by methodological parameters and practical constraints.
Your Topic

Choice of topic:

– Needs to be well considered & well defined
– Scope and limitations, breadth of review
– Interesting to you
– Of interest to your audience
Limitations and Inclusion Criteria

Literature reviews may be limited by:

- The amount of available material on the topic (varies according to the topic)
- A specified time frame; e.g. published after 1980
- Language; e.g. only papers published in English
- Time (e.g. Assignment 3 is due in week 11)
- Research funding limits
- Organisational resources (e.g. data base/library access)
- A word limit (e.g. a 1200 word limit)
Searching the Literature
Searching the Literature

• Are you searching for the right thing?
• Re-searching your research topic
• Keeping track of what you read
• How to take notes
Are You Searching For the Right Thing?

- In assignment 2 you searched the literature and produced a bibliography.

- This means you have a record of where to find the information, or you may have already downloaded papers.

- You now need to revisit your literature.

- You may decide to expand or contract or change your original research topic based on what you now know.
Re-searching Your Research Topic

• Now is the time to make sure you have adequate relevant resources
• Try searching your topic in different databases or libraries
• Look in the reference section of books or articles you find particularly useful
• Try to work out who the experts in the field are
• Are there any major debates in your field of study
• Do you have the most up to date information available
• You might begin with a media scan, see what is happening on the internet, blogs, TED talks... this material does not go in the review but for some of you it can help to refine your topic
Keeping Track of What You Read

There are many different ways to keep track of your research:

- You might use the referencing software
- Write notes
- Create a file of information according to topic
- If your information is from an online source save hyperlinks
- Keep note of key terms
How to Take Notes

• Take notes as you go along
• Write down insights and interesting facts
• Make sure you know where to find the information again
• If you copy something word for word use quote marks
• Organise and re-shuffle your ideas into categories or themes as you go
  – The categories may change but the process of organising your thoughts is useful
Critique of the Literature
Be Critical

• A review is not just a summary of what you have read
• You should be able to form an informed opinion based on what you have read
  – What would you say if someone asked your opinion on this topic?
• Being critical includes having an opinion on the quality of the research articles
• To be a good practitioner you need to learn to critically evaluate information
Evaluating Evidence Based Medicine: Use the EBM Hierarchy

Use the hierarchy to think critically about the information you have found.

A systematic meta-analysis holds more weight than a case report.

However, it is important that any research is of high quality - a high quality case report is of more value than a poor RCT.
How do we evaluate traditional evidence?

• Chinese medicine has a history that is thousands of years old

• Western science is only recently able to “prove” via techniques such as MRI image that some ancient knowledge's are in fact correct

• MRI has recently proven that certain areas of the body have a higher heat signature, these points correspond directly to acupuncture points
How Do We Evaluate Traditional Evidence. Example: Iridology

• Chiromatica Medica Published 1665

• 1952 Bernard Jensen publishes ‘The Science and Practice of Iridology (in Endeavour Library)

• His ideas about detoxification are still used in nutritional and naturopathic practice today e.g. Toni Miller

• Clearly practitioners and clients have found benefit in the practice of iridology
Traditional Evidence and Your Assignment

• Searching for evidence based research on iridology is likely to return a statement such as the following “....controlled clinical trials and experiments conclusively show that iridology has no ability to detect disorders in other parts of the body; there are sufficient proofs that iridology is purely conjectural”

• However, if your disease state was obesity and your treatment was nutritional therapy you could use information drawn from traditional texts about detoxification of the body in the introduction, to contextualize your research
Learning to Critique

In week 2 we learned about David Sackett and the role of the expert. He was critical.

- Can you remember what he said about experts?
- Have you come across any experts in your literature retrieval search?
- Did you come across variable findings in your research? Any differences of opinion about different disease states or remedies?
- Did you have any critiques of the way research was carried out in any of the studies you read?
- Did you think some results were better than others? Why?
What Your Literature Review Should Tell Your Reader

- Some history/context for the research question
- The major findings/ideas in your field of research
- The main areas of debate
- The area/s that need further research
Structure of the Literature Review
Structuring Your Literature Review

A literature review is more like a research report than an essay

The basic structure required for assignment 3:

• Title
• Research question
• Introduction
• Body / main findings
• Conclusion
The Introduction

Should include:

• Background context
  • history e.g. traditional uses of peppermint
  • social context e.g. social significance of the obesity epidemic
• A brief summary of your topic and the structure of your assignment
• Aims of the research

Think about a ‘hook’ for your reader, something different, unusual, interesting...
This literature review discusses the historical and modern uses of peppermint as a natural stimulant and soother of stomach ailments. The historical background and uses of peppermint will first be discussed. The review is then divided into two main sections the first discusses its effectiveness as a stimulant and the second it’s usefulness as a stomach soother. In each section reference is made to traditional use and to evidence based research.... the results suggest that peppermints effectiveness in the relief of nausea are well established however it’s stimulant properties need further investigation.....
The Body

Body / main findings

• You have 1200 words to write this assignment. If, for example, you were researching peppermint as in the example above, it would be better to choose its stimulant properties or its efficacy as stomach soother as the topic – be specific.

• Organise the flow of this section to hook your reader in and guide them through your argument

• Structure in this section will be dependent on your findings
  – You might divide this section into evidence that supports and evidence that undermines peppermint’s efficacy
  – You might divide it according to the research method used
  – You might divide it according to themes you have discovered in the literature
The Conclusion

As a result of your research you conclude that...

- Start with the main point you want your reader to remember.
- Were your findings conclusive?
- Is there good evidence to support your research question?
- Are there key debates in the literature?
- Do results from different methods conflict with one another?
- Is there a need for further research?
Activities to Get You Started on Your Literature Review

See tutorial outline in your session 7 study guide for instructions on how to use the following tools to help you construct your literature review.
Exercise:
Analyse the reading for session 7

„Probiotics for the treatment of bacterial vaginosis” – a systematic literature review (Cochrane Library)

1. What does the title tell you?
2. What is the disease state and treatment that the paper addresses?
3. Identify different parts of the paper.
4. Identify the key point in each section.
5. What do the authors conclude?
Tutorial Activity 1

See session 7 study guide

*Insert your research topic here*..........................

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<tr>
<th>Key words / concepts</th>
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<tr>
<td>Index / Thesaurus</td>
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<tr>
<td>Synonyms</td>
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<td>Truncation</td>
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<td>Limits</td>
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<td><strong>Formulate search statement</strong> – (the words that will form your search string)**</td>
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You should now know

• By now you should have a very good idea of what you intend to study and know how to conduct your research

If you have questions about the next assignment please ask your lecturers, librarians and online tutors now!
For next week please read

Chapter 13: “Papers that report questionnaire research”

of the textbook:

Next session
Methods and methodologies

For next session:
After reading chapter 13 of your textbook ("Papers that report questionnaire research") you should know:

• If the questionnaires are considered to be an objective means of collecting information?
• What is a research instrument?
• What is validity and what makes a questionnaire valid?
• What is reliability and what makes a questionnaire reliable?
Discussion Forum question

session 8

Please post your answers in discussions forum for session 8 on LMS. Due date for this post is 11.55 pm on Sunday following session 8.

- Post on the Discussion Forum the inclusion criteria that you would apply when searching literature for a systematic literature review on a chosen topic.

- Your post should provide the name of the topic (disease and treatment) and inclusion criteria (please refer to this session reading).
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