

When is a sample of literature sufficient in a literature review?

Dr Helen Aveyard

Example from practice

‘What influences nurses satisfaction in their work?’

MSc dissertation project title/question

Searching needs to be:

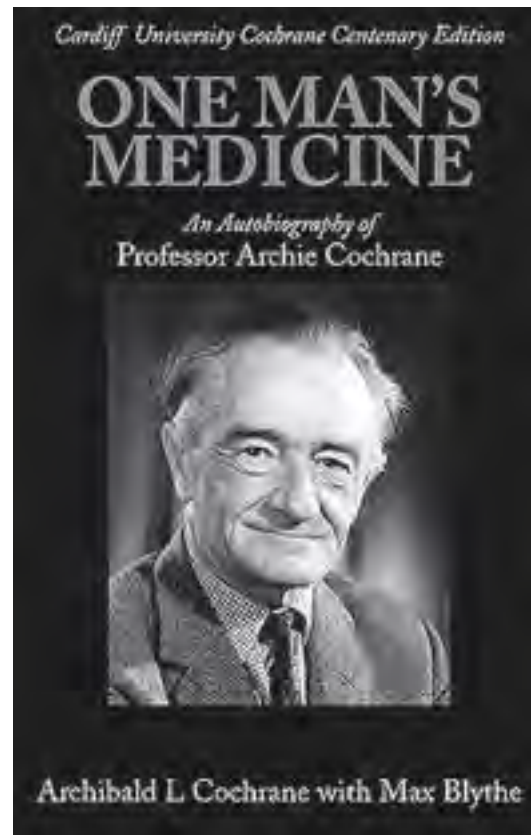
Comprehensive

Systematic

Avoiding bias

(which generally leads to the requirement of a small and focussed question at MSc and BSc level)

Influence of Cochrane Collaboration on other literature review designs



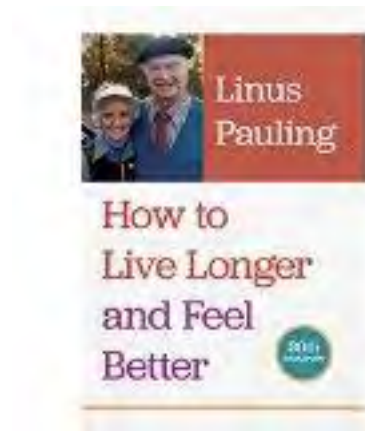
The purpose of searching is to avoid bias in selection of studies so that the results can be generalised



Failure to do this can 'undermine the statistical models that underpin the analysis and bias the results' Thomas and Harden (2008)

Well known example of an inadequate sampling strategy

Pauling' (2006) s discussion of vit C and the common cold



Comprehensive searching means

Search every database

Use appropriate AND/ OR

Locating MSc Phd thesis

Locating unpublished work

Locating hard to find papers

**This doesn't mean all papers will be included-
Inclusion and exclusion criteria are then applied.**

Development of literature review methods & approaches to sampling

Meta-aggregation: Hannes and Lockwood (2011) comprehensive search, appraisal and aggregation of findings

Meta-ethnography: Noblit and Hare (1988) **purposive search**, appraisal & interpretation of findings. 1st, 2nd and 3rd order interpretations

Thematic synthesis: Thomas and Harden (2008) **conceptual saturation** , appraisal & interpretation of findings.

Meta-synthesis: Walsh and Downe (2005) comprehensive search, appraisal & interpretation of findings

Integrative review: Whitemore and Knafl (2005). Comprehensive search, appraisal & interpretation of findings

Meta-analysis: Higgins and Green (2011)

Searching

Meta-ethnography ‘the sample is purposive rather than exhaustive because the purpose is interpretive explanation and not prediction’ Doyal (2003)

Expansive searching

Thomas and Harden (2008) the results of a conceptual synthesis will not change if ten rather than five studies contain the same concept but will depend on the range of concepts in the study. Aiming for saturation might be more appropriate 'although it is not clear how these principles can be applied in practice' (p2)

Varied use of terminology

Sabatino L, Stievano A, Rocco G, Kallio H, Pietila A, Kangasniemi M (2014) The dignity of the nursing profession: a meta-synthesis of qualitative research. *Nursing Ethics* vol 2 (6) 659-672 .

Emphasis Noblit and Hare's ethnography, rather than meta-synthesis including purposeful selection of studies

Common structure of all systematic reviews

Research question

Searching- comprehensive or expansive

Critical appraisal

Data analysis

Writing up

In qualitative and mixed method reviews

The purpose is understanding rather than generalisation and predictions.

Therefore is a comprehensive search still required?

Does it matter if not all literature is collected?

Is comprehensive searching only required if the aim is a meta-analysis ?

Does it depend on the purpose of the review?

Empirical reviews

‘what is it like to live with IBS?’

‘how are patients involved with safety considerations in hospital?’

Theoretical reviews

‘how is the concept of consent used within nursing’

‘what is our understanding of the theory-practice gap within nursing’

‘What theories inform the move away from institutional care’

Systematic reviews which have used a sample of literature

Glenton C¹, Colvin CJ, Carlsen B, Swartz A, Lewin S, Noyes J, Rashidian A.(2013)

Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: qualitative evidence synthesis.

Cochrane Database Syst Rev. 2013 Oct 8;(10):CD010414. doi: 10.1002/14651858.CD010414.pub2.

Systematic reviews which have used a sample of literature

Doyal (2003) Synthesis through meta-ethnography: paradoxes, enhancements and possibilities. *Qualitative research* vol 3(3) 321-344

Systematic reviews which have used a sample of literature

- Finfgeld-Connett (2014) Intimate partner abuse among older women: Qualitative systematic review. *Clinical Nursing Research* vol23 (6) 664-683

Expansive searching

The difference can be very subtle- Finfgeld-Connett (2014) ‘intimate partner abuse among older women’

Expansive search ‘when data saturation and fit are the goals’ (Finfgeld 2014 p666)

Evidence that adds breadth, depth and meaning to concepts and the inter-relationships among them’

Expansive searching

‘pearl growing’ a classic strategy for identifying topically related research articles.

Key words listed in a small sample of key articles are used to develop a search strategy, searches restricted to qualitative research in databases & including a reference list search of the papers for additional studies

Searching

- Although the process is well described in the literature and there are examples, a recent search of published meta-ethnographies (in which a sample of literature is indicated) did not identify any examples of meta-ethnographies in which researchers had not used a comprehensive search strategy:
 - *for example* Toyes, Seers and Baker (2014)
 - Wyverkens, Van Parys Buysse (2015)

In summary

- Comprehensive search needed for generalisable results.
- But inclusion /exclusion criteria/ critical appraisal are applied. Lots of methodological decisions made
- Is a purposive sample a justifiable methodological decision?
- Does it depend on theoretical/empirical review?

References

Doyal LH (2003) Synthesis through meta-ethnography: paradoxes, enhancements and possibilities. *Qualitative research* 3(3) 321-344

Finfgeld-connett (2014) Intimate partner abuse among older women: qualitative systematic review. *Clinical Nursing Research* vol 23 (6) 664-683

Glenton C¹, Colvin CJ, Carlsen B, Swartz A, Lewin S, Noyes J, Rashidian A. (2013) **Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: qualitative evidence synthesis.**

Cochrane Database Syst Rev. 2013 Oct 8;(10):CD010414. doi: 10.1002/14651858.CD010414.pub2.

Hannes K & Lockwood C (2011) Pragmatism as the philosophical foundation for the Joanna Briggs meta-aggregative approach to qualitative evidence synthesis. *Journal of Advanced Nursing* 67(7) 1632-1642

Higgins and Green (2011) *Cochrane Handbook for Systematic Reviews of Interventions version 5.1.0*. Cochrane Collaboration

Laging B, Ford R, Bauer M (2015) A meta synthesis of factors influencing nursing home staff decisions to transfer residents to hospital. *JAN* 71 (10) 2224-2236

- Noblit GW and Hare RD (1988) Meta-ethnography, synthesising qualitative studies, *Qualitative Research Methods*, Volume 11. SAGE Publications: London
- Sabatino L, Stievano A, Rocco G, Kallio H, Pietila A, Kangasniemi M (2014) The dignity of the nursing profession: a meta-synthesis of qualitative research *Nursing Ethics* vol 2 (6) 659-672 .
- Thomas J and Harden A (2008) Methods for the thematic synthesis of qualitative research in systematic reviews *BMC Medical Research Methodology* 8:45
- Thorne, S. (2017). Metasynthetic Madness: What Kind of Monster Have We Created?. *Qualitative Health Research*, 27(1), 3-12.

- Toye F, Seers K, Baker K (2014) A meta ethnography of patient experience of chronic pelvic pain; struggling to construct pelvic pain as real. *Journal of Advanced Nursing* 70 (12) 2713-2727
- Walsh D and Downe S (2005) Meta-synthesis method for qualitative research: a literature review. *Journal of Advanced Nursing* 50(2) 204-211
- Whitemore R. & Knafl K. (2005) The integrative review: updated methodology. *Journal of Advanced Nursing* 52, 546-553.
- Wyverkens E, Van Parys H Buysse A (2015) Experiences of family relationships among donor-conceived families: a meta-ethnography. *Qualitative Health Research* vol 25 (9) 1223-1240

Methodological decisions

Do mammograms save lives?

In 2013, the Nordic Cochrane group published a systematic review in which their analysis showed that mammograms were not effective in reducing the mortality rate from breast cancer (Gotzsche and Jorgensen 2013). These findings provoked intense discussion among scientists and the medical community.

Methodological decisions

- Do mammograms save lives?
- When the papers were reanalysed, omitting some of the older papers from the meta-analysis, (Marmot et al 2012), the results were more encouraging.
- Hence it remains a judgement call as to which studies are included in the analysis and the consequences of this.