

UCLA Library

Works-in-Progress:
systematic reviews & working with librarians

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Outline

- Review types & stages of a systematic review
- PRISMA - <http://www.prisma-statement.org/>
 - PRISMA-P
 - PROSPERO
 - PRISMA-S
- Librarians as partners - BLESS

Types of Reviews: <https://guides.library.ucla.edu/systematicreviews>

Systematic - systematically search for, appraise and synthesis research evidence, often adhering to guidelines on the conduct of a review



Task	Description	Classification
1. formulate review question	Decide on the research question of the review.	preparation
2. find previous SR	Search for SR that answers the same question.	
3. write the protocol	Provide an objective, reproducible, sound methodology for peer review.	
4. devise search strategy	Decide on databases and keywords to find all relevant trials.	
5. search	Aim to find all relevant citations even if many irrelevant ones included.	retrieval
6. de-duplicate	Remove identical citations.	
7. screen abstracts	Based on titles and abstracts, remove definitely-irrelevant trials.	appraisal
8. obtain full text	Download, request copies from authors, inter-library loans, etc.	
9. screen full text	Exclude irrelevant trials.	
10. snowball	Follow citations from included trials to find additional trials.	synthesis
11. extract data	Extract outcome numbers and associate with trial arm.	
12. synthesize data	Convert extracted data to common representation (usually average and SD).	synthesis
13. re-check literature	Repeat the search to find new literature published since the initial search.	
14. meta analyze	Statistically combine the results from all included trials.	write-up
15. write up review	Produce and publish the final report.	



Researcher



Librarian



Statistician

Source: Tsafnat, G., Glasziou, P., Choong, M. K., Dunn, A., Galgani, F., & Coiera, E. (2014). Systematic review automation technologies. *Systematic reviews*, 3(1), 74.

Icons: Gonzalo Bravo and Gan Khoon Lay (<https://thenounproject.com>)

PRISMA

Preferred Reporting Items for Systematic Reviews and Meta-Analysis

- Reporting helps authors develop and maintain direction
- Reporting helps reviewers/readers critically appraise the final review (it is not, however, a tool that evaluates quality)
- PRISMA is essentially the framework for your published review

PRISMA-P Checklist

Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4320440/>

PROSPERO: Prospective registry for systematic reviews

- For reviews with at least one health related outcome
- Ability to check for work already being done in your area of interest
- Submit after protocol is finalized and before screening begins

Search Strategy Tips

- Biomedical Library Expert Search Service: [#BLESS](#)
- Must include structured search language (e.g., MESH) and keyword
- Common limits:
 - For English only studies: AND English[lang]
 - To eliminate animal only studies at the end of the string add: NOT (“animals”[MeSH] NOT “humans”[MeSH])
 - Appropriate study design limits vary by clinical question

Examples

- Not so complicated, but lots of citations: GI-PRO study (see Table 1)
- Not complicated, but less results: Atherosclerosis in systemic sclerosis (see appendix)
- Complicated: Prevalence of Root Canal Treatment (see Table 1)

Start with the Library: Systematic Review Guide

<https://guides.library.ucla.edu/systematicreviews>