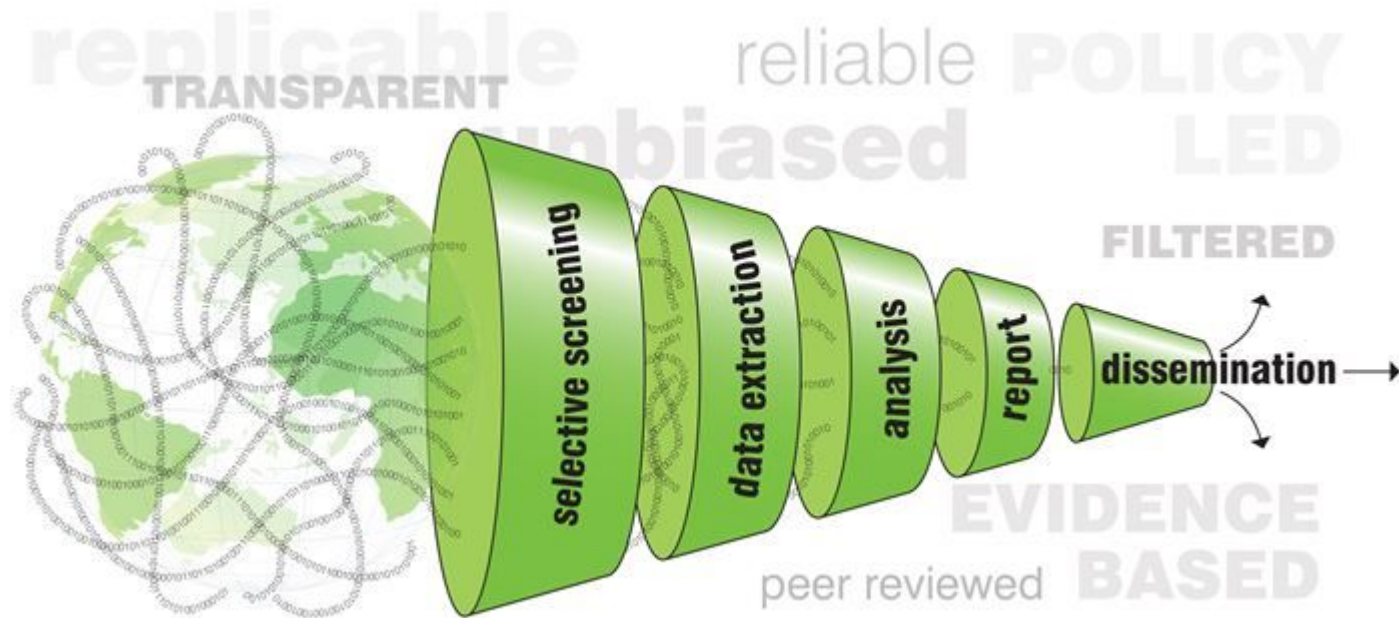


Intro to reviews in AgriLife



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**evidence
synthesis**

integrative

mapping

critical

systematic

realist

narrative

scoping

umbrella

overview

Review

literature

interpretative

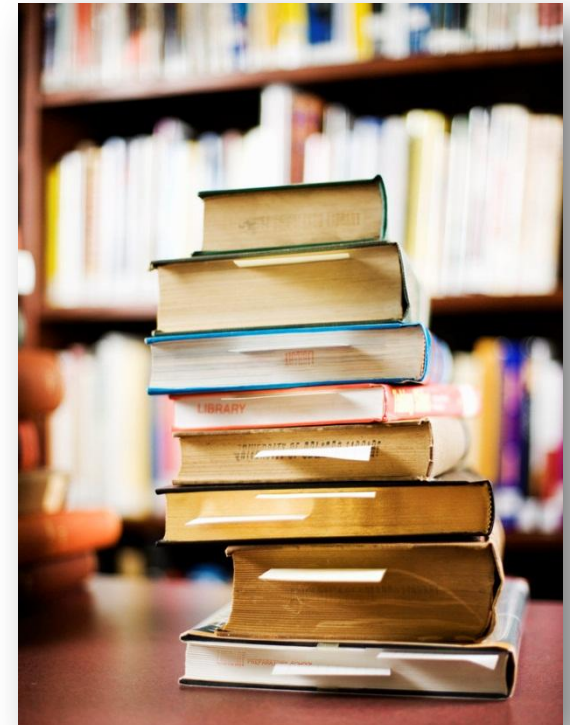
**meta-
analysis**

Narrative Reviews

aim to summarize the critical points of current knowledge of a particular topic. Also called literature reviews

Lit review can be written as

- As introduction to a study to:
 - Demonstrate how a study fills a gap in research
 - Compare a study with other research
- As a separate work which:
 - Organizes/describes a topic
 - Describes variables within a particular issue/problem





Systematic Reviews

a research method that aims to answer question(s) by analyzing studies meeting a specified criteria

- Transparent: record & report all methods
- Follow standards and evidence based practices
- Minimize bias

Introduction
Methods
Results
Discussion



Steps of Systematic Reviews

1) Plan

Frame question, determine criteria, project management, (Protocol if required)

2) Identify

Determine search terms, resources, retrieve & document

3) Evaluate

Screen, select, sort, appraise

4) Collect & code

Determine forms, code, synthesize

5) Explain

Analyze findings, put into context

6) Summarize

Write up report



Scoping Reviews

Aim is to address an exploratory research question aimed at mapping key concepts, types of evidence, and *gaps* in research related to a defined area or field

Scoping involves the synthesis and analysis of a wide range of research and non-research material to provide greater conceptual clarity about a specific topic or field of evidence (Davis, Drey, & Gould)

Hilary Arksey & Lisa O'Malley (2005) Scoping studies: towards a methodological framework, *International Journal of Social Research Methodology*, 8:1, 19-32, DOI: 10.1080/1364557032000119616

Daudt et al.: Enhancing the scoping study methodology: a large, inter-professional team's experience with Arksey and O'Malley's framework. *BMC Medical Research Methodology* 2013 13:48.

Review continuum

*Describe
methods*

*Appraise
articles*

Narrative

**Mapping
Scoping**

**Systematic Review
& meta analysis**

**Realist reviews
Integrative reviews**

*Studies
answering
the same
question*

subjective

broad question

**methods
unclear**

broad question

**methods described
descriptive**

objective

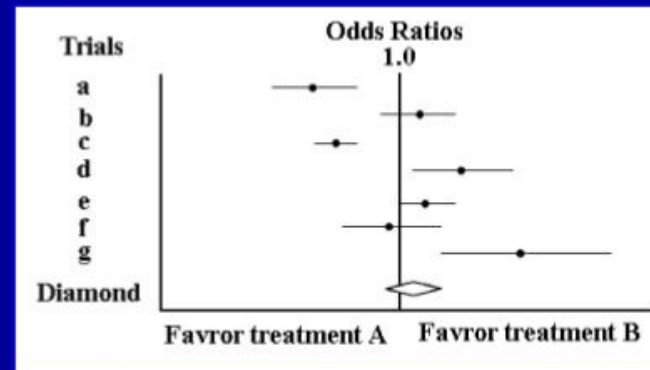
**narrow question
methods clearly
described
studies appraised**

Meta-Analysis

a statistical method which combines data from studies

- Usually starts with a systematic review
- Run tests to determine if study data can be combined
- Combine study data from multiple studies into 1 study

Heterogeneity & forest plot Hypothetical MA



Some trials with lower C.I. above upper C.I. of other trials

Some lines do not overlap

McGovern D, Summerskill W, Valori R, Levi M. Key topics in EBM.
BIOS Scientific Publishers, 1st Edition, Oxford, 2001.

Another view

Systematic Reviews

Descriptive reviews

Narrative review

Scoping review

Mapping review

By type of studies

- Quantitative
- Qualitative
- Mixed methods
- Umbrella review (SRs)

By time/updates

- Rapid review
- Living systematic review

By type of question

Effectiveness

Cost/Economic

adverse effects

diagnosis

prognosis

policy

qualitative

risk or protective

theory

Other types of reviews

Realist review

Realist evaluation

Integrative review

Steps to determine feasibility

1. Decide if question matches systematic review method

2. Scope of the review

3. Find and evaluate related reviews/protocols

4. Estimate number of potential citations

5. Determine feasibility

Step 1:

What is your question?

- Is it a broad question?
- Very specific?
- Are you looking at studies?
- Everything??





Types of questions

Review Type	Aim	Question Format	Question Example
Effectiveness	To evaluate the effectiveness of a certain treatment/practice in terms of its impact on outcomes	Population, Intervention, Comparator/s, Outcomes (PICO) [23]	What is the effectiveness of exercise for treating depression in adults compared to no treatment or a comparison treatment? [69]
Experiential (Qualitative)	To investigate the experience or meaningfulness of a particular phenomenon	Population, Phenomena of Interest, Context (PICO) [13]	What is the experience of undergoing high technology medical imaging (such as Magnetic Resonance Imaging) in adult patients in high income countries? [70]
Costs/Economic Evaluation	To determine the costs associated with a particular approach/treatment strategy, particularly in terms of cost effectiveness or benefit	Population, Intervention, Comparator/s, Outcomes, Context (PICOC) [14]	What is the cost effectiveness of self-monitoring of blood glucose in type 2 diabetes mellitus in high income countries? [71]
Prevalence and/or Incidence	To determine the prevalence and/or incidence of a certain condition	Condition, Context, Population (CoCoPop) [15]	What is the prevalence/incidence of claustrophobia and claustrophobic reactions in adult patients undergoing MRI? [72]
Diagnostic Test Accuracy	To determine how well a diagnostic test works in terms of its sensitivity and specificity for a particular diagnosis	Population, Index Test, Reference Test, Diagnosis of Interest (PIRD) [16]	What is the diagnostic test accuracy of nutritional tools (such as the Malnutrition Screening Tool) compared to the Patient Generated Subjective Global Assessment amongst patients with colorectal cancer to identify undernutrition? [73]



Types of questions

Etiology and/or Risk	To determine the association between particular exposures/risk factors and outcomes	Population, Exposure, Outcome (PEO) [17]	Are adults exposed to radon at risk for developing lung cancer? [74]
Expert opinion/policy	To review and synthesize current expert opinion, text or policy on a certain phenomena	Population, Intervention or Phenomena of Interest, Context (PICO) [18]	What are the policy strategies to reduce maternal mortality in pregnant and birthing women in Cambodia, Thailand, Malaysia and Sri Lanka? [75]
Psychometric	To evaluate the psychometric properties of a certain test, normally to determine how the reliability and validity of a particular test or assessment.	Construct of interest or the name of the measurement instrument(s), Population, Type of measurement instrument, Measurement properties [31, 32]	What is the reliability, validity, responsiveness and interpretability of methods (manual muscle testing, isokinetic dynamometry, hand held dynamometry) to assess muscle strength in adults? [76]
Prognostic	To determine the overall prognosis for a condition, the link between specific prognostic factors and an outcome and/or prognostic/prediction models and prognostic tests.	Population, Prognostic Factors (or models of interest), Outcome (PFO) [20, 34, 35, 36]	In adults with low back pain, what is the association between individual recovery expectations and disability outcomes? [77]
Methodology	To examine and investigate current research methods and potentially their impact on research quality.	Types of Studies, Types of Data, Types of Methods, Outcomes [39] (SDMO)	What is the effect of masked (blind) peer review for quantitative studies in terms of the study quality as reported in published reports? (question modified from Jefferson 2007) [40]

Step 2:

Establish the scope

- Write out the question
- What type of question is it?
- What framework should be used?
- What is the criteria of the included studies?



Intervention: PICO

Do library workshops decrease number of months graduate students spend completing review for their dissertation?

P

- Population: grad students

I

- Intervention: library workshops

C

- Comparison: No workshops

O

- Outcome: Months working on dissertation



Eligibility criteria

- Describe criteria
- Include definitions and citations as appropriate
- Determine if it will be used in the search or screening
- For exclusions to a criteria provide reasoning
- Goal is to be as specific as necessary

Do library workshops decrease number of months graduate students spend completing review for their dissertation?

Criteria:

- graduate students
- library workshops
- months spent on dissertations
- U. S. only?

PEO

Population: Children

Exposure: Community garden

Outcome: Increase in vegetable consumption



Step 3:

Find & analyze relevant reviews

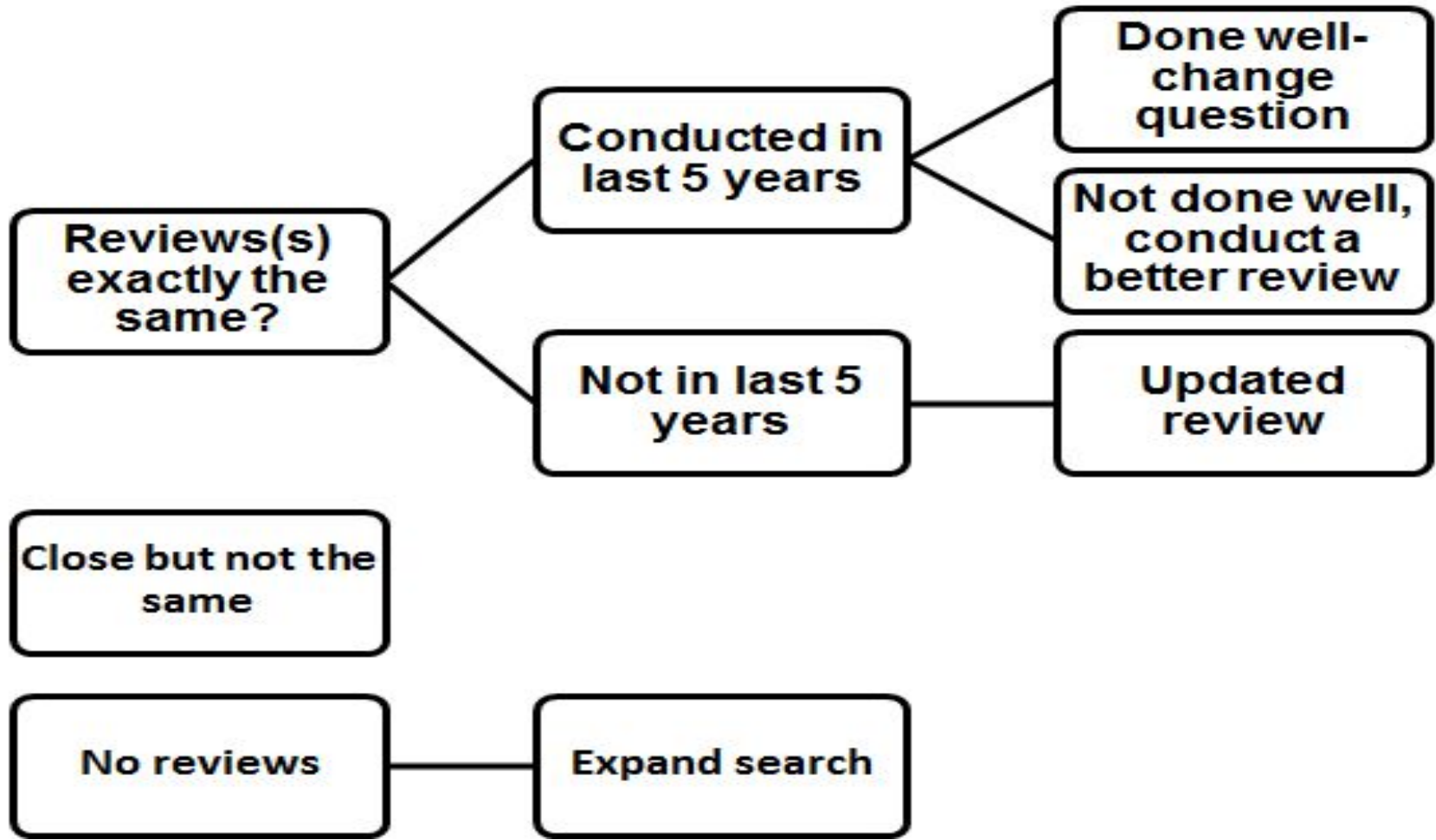


1. Search for reviews
 - subject specific
 - protocols (Prospero)
 - review databases
2. Assess results
3. Create a table
4. Assess

Create table pg 6

Citation	Author1 (year)	Author2 (year)	Author3 (year)
type of review	narrative	scoping	systematic
question/objective	What has been the impact of focusing on writing in undergraduate courses?	What is current literature on instruction focused on college level writing skills?	Effectiveness of online interventions to improve writing skills of doctoral students
search	unknown	ERIC, Education Source, Academic Search (2005-2012)	ERIC, Education Source, Academic, conference paper, cited references (2000-2016)
method/quality	no methods	no appraisal	limited to English and peer reviewed

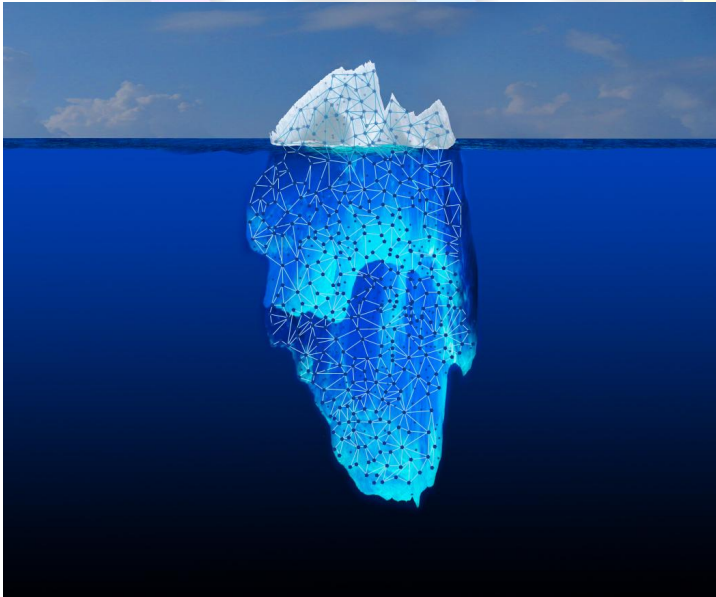
Assess results of search



Robinson KA, Whitlock EP, Oneil ME, et al (2014) Integration of existing systematic reviews into new reviews: identification of guidance needs Syst Rev 3: 60-4053-3-60.

Step 4:

Potential studies



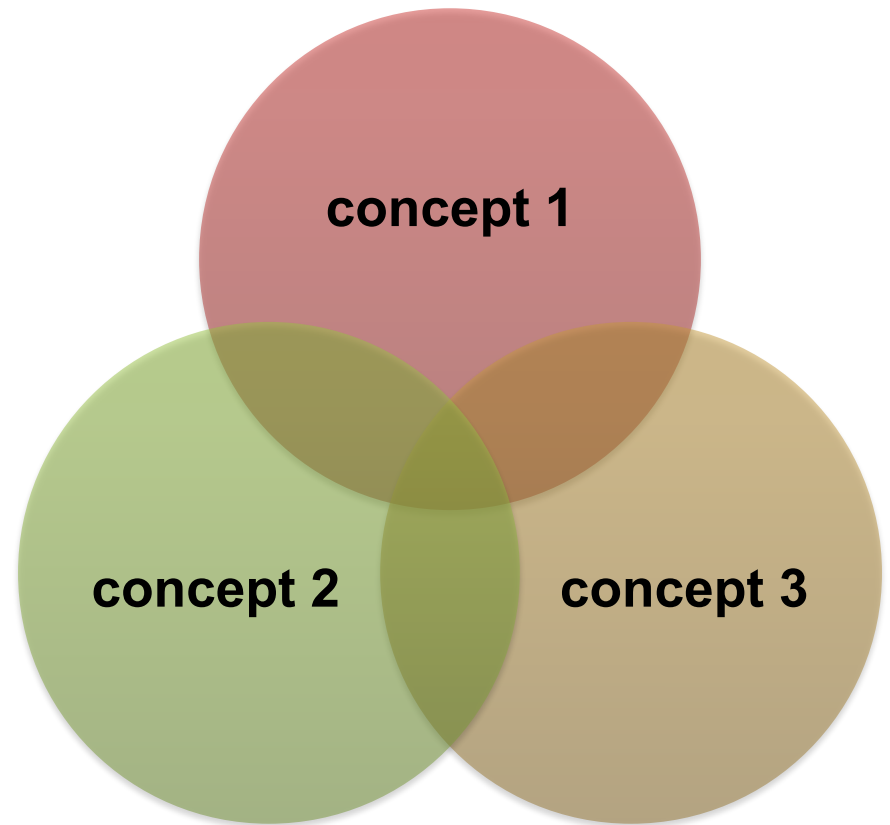
1. Define search criteria
2. Conduct a search
3. Screen results

- Quick search to see what is out there
- First search in developing main search
- Looking for quick estimate
- Help in refining criteria

Determine search terms

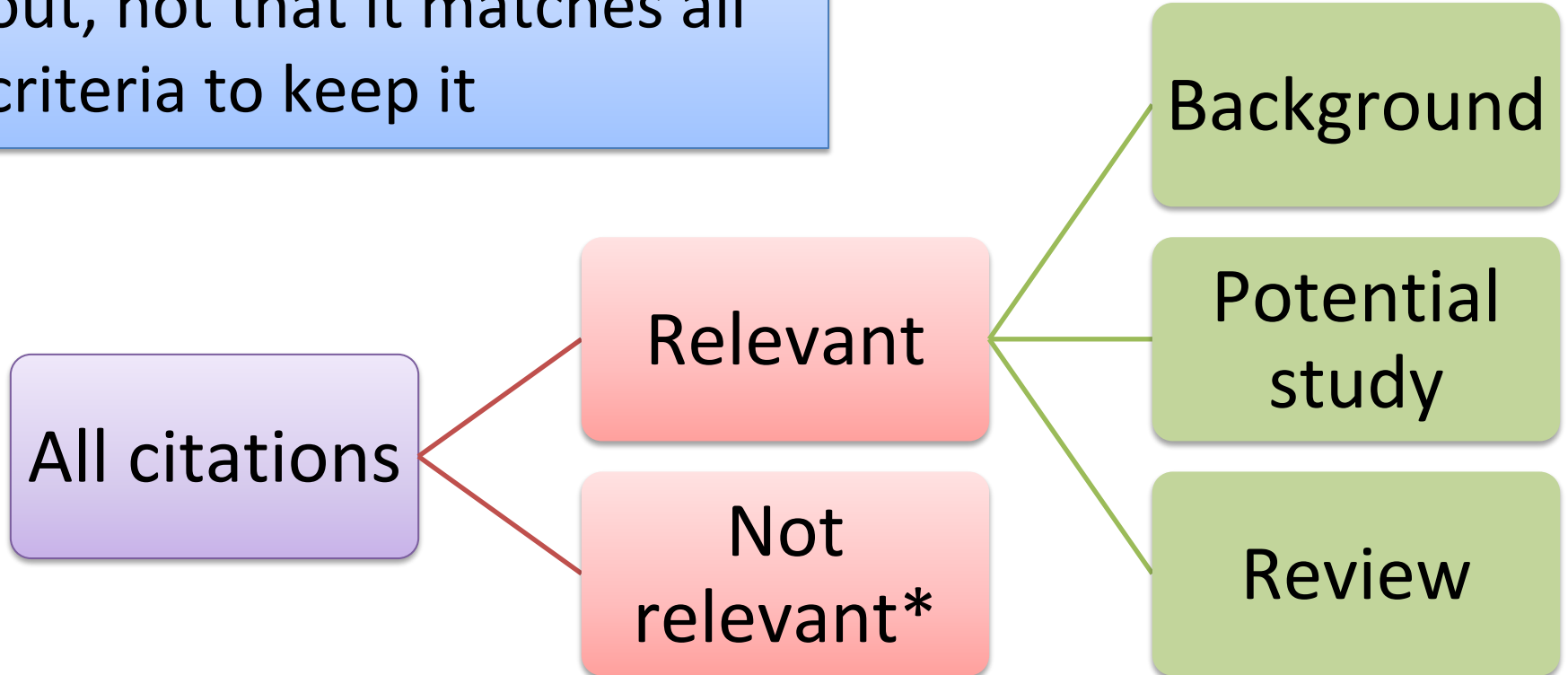
Select terms from research question

- Not all criteria will be in the search
- Some will be limiters
- Some will only be applied during the screening/selection process



Potential categories

screening by title/abstract-
looking for reasons to kick it
out, not that it matches all
criteria to keep it





Reviewing the results

Screen first 50 articles

Goals:

- find 2-3 included articles
- test out eligibility criteria

Note: there is no “right” number

Found no studies?

- maybe there are no studies
- eligibility criteria
- search was too narrow

Found too much?

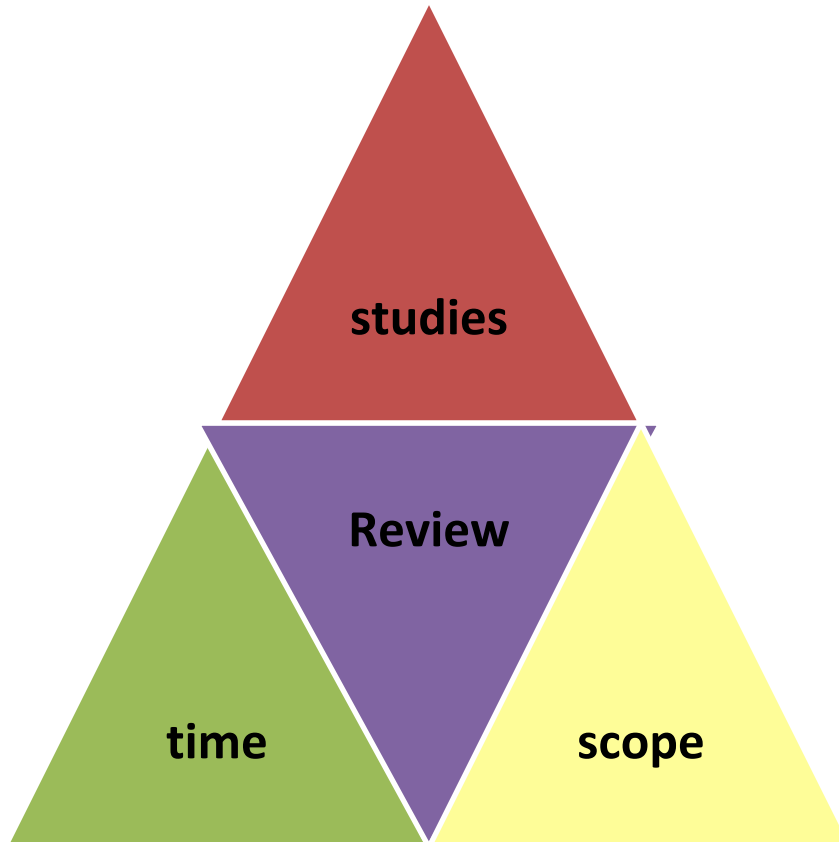
- limit year, population..
- narrow intervention
- narrow study types

Step 5: Determine feasibility



- Finalize scope of review
- Factors to consider
- Resources

Factors



- Did the question change? Did the criteria change?
- Write out the finalized question & eligibility criteria
- “Enough” literature
- Scope is unique
- Enough time?



SR organizations

Health

- Cochrane Collaboration
- Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)
- Joanna Briggs Institute (JBI)
- AHRQ: Agency for Healthcare Research & Quality
Evidence-based reports (EPC)
- BEME: Best Evidence Medical Education
- USDA's Nutrition Evidence Library (NEL)

Education/Social Sci

- What works clearinghouse (Institute of Education Sciences)
- EPPI Centre
- Campbell Collaboration

Agriculture

- 3ie International Initiative for Impact Evaluation
- CABI
- Systematic Reviews for Animals & Food

Campbell Collaboration



Crime and Justice



Education



International Development



Methods



Social Welfare



Knowledge Translation and Implementation
(former Users Group)



Disability



Business and Management



Food Security (coming CG)

3ie International Initiative for Impact Evaluation



About 3ie

Strategy & Vision

What 3ie does

Impact Evaluation Programme

Impact Evaluation Services

Synthesis and Reviews Programme

Policy Influencing Activities

Meet the Team

Board of Commissioners

3ie Affiliates

Home > About 3ie > What 3ie does > Synthesis and Reviews Programme

Synthesis and Reviews Programme

3ie's synthesis and reviews programme provides a range of research synthesis products and services.

This includes training and quality assurance, production of in-house research as well as funding for new systematic reviews.

The synthesis and reviews programme is based at 3ie's UK office at London International Development Centre.



SR

What is a systematic review?

Systematic reviews synthesise the best available research evidence on a specific question.

3ie funded systematic reviews

3ie has so far funded 34 systematic reviews that cover a broad range of sectors.

[more...](#)



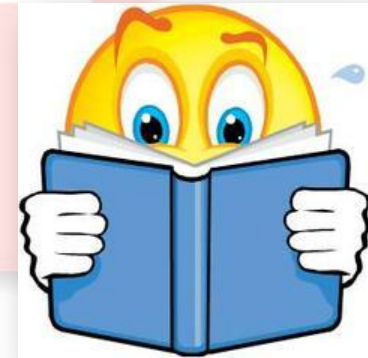
3ie-LIDC London seminars

The 'what works in international development' seminar series runs on a monthly basis. Read more and receive regular updates.

[more...](#)



Manuals and standards



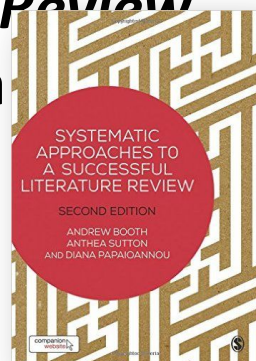
Manuals

- Cochrane Collaboration Reviewers' Handbook
- The Methods of the Community Guide
- Campbell Collaboration

Books

Systematic Approaches to a Successful Literature Review

Booth, Sutton, and Pa
(2nd Edition-2016)



Standards

Conducting

- MECCIR (Cochrane)

Reporting

- PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses)
- What PRISMA does not do:

It does **not** tell you how to:

- Search
- Screen
- Code

Or any other part of conducting

Types of software

- File storage
- Citation management
- Review software
- Coding data
- Project management
- Files
- Selection



Advanced Search

Software Tools Other Tools [Add a New Tool](#)

Select an underlying **approach**:

Select a **discipline**:

Select a **Cost**:

Check 'Any' if not concerned about any specific **features**:

Any

OR

Select **features** you want a tool to support:

- Protocol Development
- Automated Search
- Study Selection
- Quality Assessment
- Data Extraction
- Automated Analysis
- Text Analysis
- Meta-Analysis
- Report Write-Up
- Collaboration
- Document Management

Search

Covidence- overview

Obesity scoping review

Find a study

Margaret Foster

Review Summary

Settings

PRISMA

Export

Import references

[2 total duplicates removed](#)

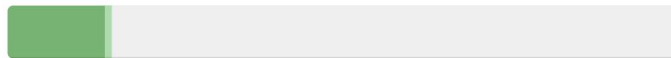
Import

Title and abstract screening

[11 irrelevant](#)

[425 studies to screen](#)

TEAM PROGRESS



72

DONE

5

ONE VOTE

0

CONFLICTS

420

NO VOTES

Team settings

**MARGARET,
YOU CAN STILL**

SCREEN

420

Continue

You've screened **31** studies so far

Full text screening

[6 excluded](#)

[46 studies to screen](#)

Extraction

[0 extracted](#)

[9 studies to extract](#)

Covidence screening

← Title and abstract screening

Screen references 420

Resolve conflicts 0

Awaiting other reviewer 5

Irrelevant references 11

All

Filter

Tags

Show criteria

Hide highlights

Hide abstracts

Display: 25

Author

#179 - Baor 2010

Baor, Liora; Soskolne, Varda

Mothers of IVF and spontaneously conceived **twins**: a comparison of prenatal maternal expectations, coping resources and maternal stress.

Human reproduction (Oxford, England) / 2010;25(6):1490-6

England 2010 /

Hide Abstract & IDs

Ref ID: 20299383

DOI: 10.1093/humrep/deq045

BACKGROUND: This study explores the differences in prenatal maternal expectations, coping resources and maternal stress between first time mothers of IVF **twins** and first time mothers of spontaneously conceived **twins**. The role of prenatal maternal expectations in the prediction of maternal stress was examined, as well as the mediating and moderating effect of coping resources on the association between **pregnancy**-type group and maternal stress., METHOD: Mothers of **twins** from various regions in Israel were included in this prospective and cross-sectional study in which 88 mothers of IVF-conceived **twins** and 98 mothers of spontaneously conceived **twins** were interviewed twice. First, at 33-36 weeks of their **pregnancy** they completed a socio-demographic questionnaire and the maternal expectations questionnaire;

No

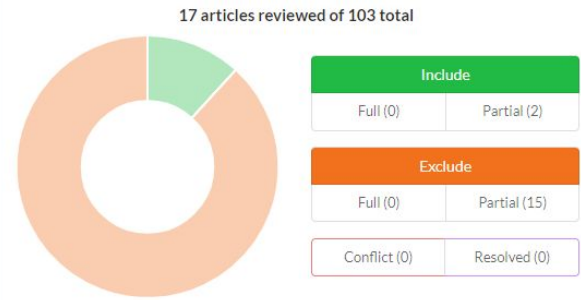
Maybe

Yes



This area is for describing the project. Add your overall project question, eligibility criteria, and more.

Review Status



Member Activity



Invite others to join

<https://sysrev.com/register/e47241af172d> [Copy Invite Link](#)

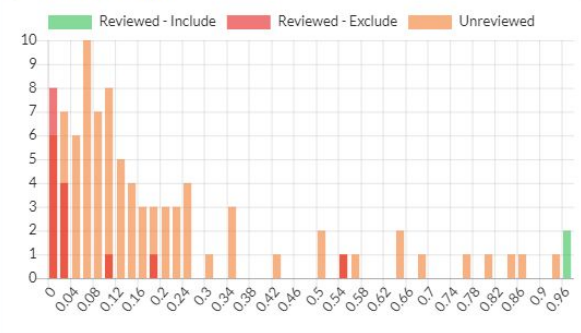
Project Documents

[+ Upload document](#)

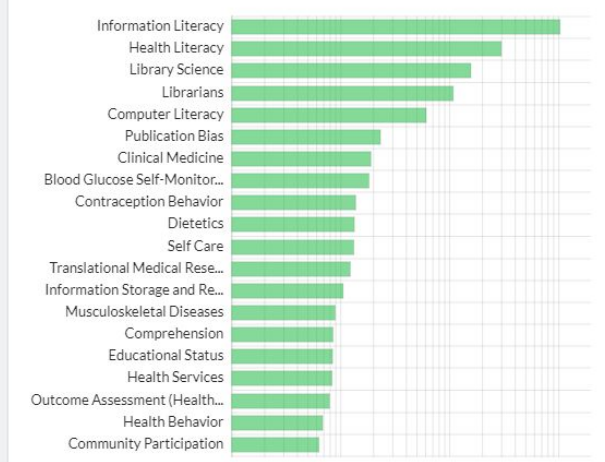
Label Predictions

Last updated: 2019-11-21 19:16:36 UTC
Trained from 15 labeled articles; 103 article predictions loaded

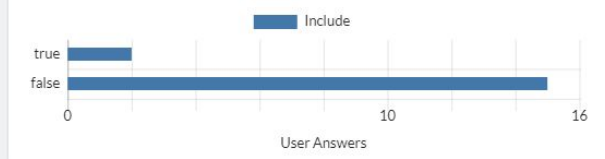
Prediction Histograms



Important MeSH Terms



Answer Counts



SysRev-screening

Labels Annotations

Include ?

No ? Yes

target population ?

health care providers x

notes ?

x

Save Skip

☰ margaretfoster / Practice review on health literacy Clone Public

Overview Articles Analytics ^{beta} Review Manage

Article Info Prediction 6%

Self-management programmes in stages 1-4 chronic kidney disease: a literature review.

Journal of renal care

2016-09-19

Bonner, A., Havas, K., Douglas, C., Thepha, T., Bennett, P. et al

BACKGROUND: Chronic kidney disease (CKD) is a complex health problem, which requires individuals to invest considerable time and energy in managing their health and adhering to multifaceted treatment regimens.

OBJECTIVES: To review studies delivering self-management interventions to people with CKD (Stages 1-4) and assess whether these interventions improve patient outcomes.

DESIGN: Systematic review.

METHODS: Nine electronic databases (MedLine, CINAHL, EMBASE, ProQuest Health & Medical Complete, ProQuest Nursing & Allied Health, The Cochrane Library, The Joanna Briggs Institute EBP Database, Web of Science and PsycINFO) were searched using relevant terms for papers published between January 2003 and February 2013.

RESULTS: The search strategy identified 2,051 papers, of which 34 were retrieved in full with only 5 studies involving 274 patients meeting the inclusion criteria. Three studies were randomised controlled trials, a variety of methods were used to measure outcomes, and four studies included a nurse on the self-management intervention team. There was little consistency in the delivery, intensity, duration and format of the self-management programmes. There is some evidence that knowledge- and health-related quality of life improved. Generally, small effects were observed for levels of adherence and progression of CKD according to physiologic measures.

CONCLUSION: The effectiveness of self-management programmes in CKD (Stages 1-4) cannot be conclusively ascertained, and further research is required. It is desirable that individuals with CKD are supported to effectively self-manage day-to-day aspects of their health.

Sources
1

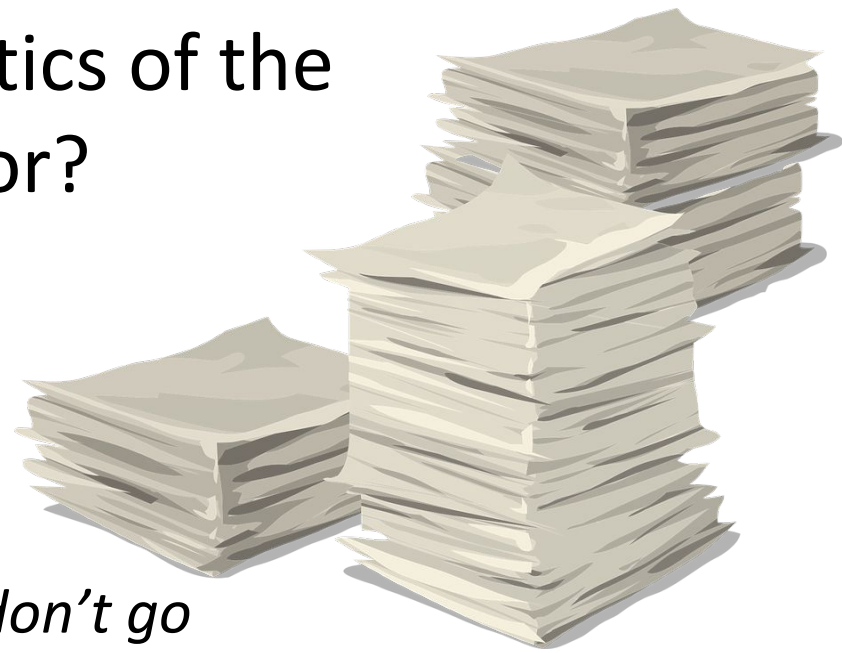
+ Upload PDF

0 finished today Definitions View All Labels

Next steps

Starting a protocol

- What is your question?
- What are the characteristics of the studies you are looking for?
- What type of review?



Until these questions are answered, don't go through a lot of literature



Review consultations

Margaret J. Foster

margaretfoster@tamu.edu

- Meet with individuals and groups about review projects
- Present to classes and groups

Carolyn Jackson

csj@tamu.edu 913.702.6205 (cell)

<http://tamu.libguides.com/systematicreviews>