Searching for literature

NRSGH Systematic Review and meta-analysis course

NIPH September 07 2022



The search process

- 1. Formulate a SR question
- **——**
- 2. Identify relevant review concepts
- 3. Identify and combine relevant search terms for selected review concepts
- 4. Select relevant databases and other sources
- 5. Check search techniques in selected databases/sources
- 6. Develop strategies, and perform the search
- 7. Report the search process
- 8. Export references to reference manager system
- Screen references
- 10. Find and read studies in full text

References

BMC Public Health

Nature Part of Springer Nature

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Research article | Open Access | Published: 16 June 2011

Randomised cluster trial to support informed parental decision-making for the MMR vaccine

Cath Jackson, Francine M Cheater , Wendy Harrison, Rose Peacock, Hilary Bekker, Robert West & Brenda Leese

BMC Public Health 11, Article number: 475 (2011) | Cite this article 9454 Accesses 32 Citations 42 Altmetric Metrics

Abstract

Background

In the UK public concern about the safety of the combined measles, mumps and rubella [MMR] vaccine continues to impact on MMR coverage. Whilst the sharp decline in uptake has begun to level out, first and second dose uptake rates remain short of that required for population immunity. Furthermore, international research consistently shows that some parents lack confidence in making a decision about MMR vaccination for their children. Together, this work suggests that effective interventions are required to support parents to make informed decisions about MMR.

This trial assessed the impact of a parent-centred, multi-component intervention (balanced

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Health behavior, health promotion and society

Figures

Abstract

Sections

Section

Background

Methods

Results

Discussion

Conclusions

References

Acknowledgements

Author information

Additional information

Authors' original submitted files for images

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About this article

- TI Randomised cluster trial to support informed parental decision-making for the MMR vaccine
- AU Jackson C, Cheater FM, Harrison W, Peacock R, Bekker H, West R, Leese B.
- AB BACKGROUND: In the UK public concern about the safety of the combined measles, mumps and rubella [MMR] vaccine continues to impact on MMR coverage. This trial assessed the impact of a parent-centred, multi-component intervention (balanced information, group discussion, coaching exercise) on informed parental decision-making for MMR. METHODS: One hundred and forty two UK parents of children eligible for MMR vaccination were recruited. This was a two arm, cluster randomised trial. The intervention arm received an MMR information leaflet and participated in the intervention (parent meeting). The control arm received the leaflet only. The primary outcome was decisional conflict. RESULTS: Decisional conflict decreased for both arms ... CONCLUSIONS: Whilst both the leaflet and the parent meeting reduced parents' decisional conflict, the parent meeting appeared to enable parents to act upon their decision leading to vaccination uptake.
- **MH** Cluster Analysis
- MH Decision Making
- MH Focus Groups
- MH Health Knowledge, Attitudes, Practice
- MH Humans
- **MH** Immunization Programs
- **MH** Interviews as Topic
- MH Measles-Mumps-Rubella Vaccine
- MH Parents
- MH Surveys and Questionnaires
- MH United Kingdom
- PT Randomized Controlled Trial
- **PT** Research Support, Non-U.S. Gov't
- **SO** BMC Public Health. 2011 Jun 16;11:475.

A record with searchable fields = a description of an article

- TI Randomised cluster trial to support informed parental decision-making for the MMR vaccine
- AU Jackson C, Cheater FM, Harrison W, Peacock R, Bekker H, West R, Leese B.
- AB BACKGROUND: In the UK public concern about the safety of the combined measles, mumps and rubella [MMR] vaccine continues to impact on MMR coverage. This trial assessed the impact of a parent-centred, multi-component intervention (balanced information, group discussion, coaching exercise) on informed parental decision-making for MMR. METHODS: One hundred and forty two UK parents of children eligible for MMR vaccination were recruited. This was a two arm, cluster randomised trial. The intervention arm received an MMR information leaflet and participated in the intervention (parent meeting). The control arm received the leaflet only. The primary outcome was decisional conflict. RESULTS: Decisional conflict decreased for both arms ... CONCLUSIONS: Whilst both the leaflet and the parent meeting reduced parents' decisional conflict, the parent meeting appeared to enable parents to act upon their decision leading to vaccination uptake.
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MMR vaccine [Title]

Randomized Controlled Trial [Publication Type]

We use search strategis to find records

#1	MeSH descriptor: [Parents] this term only	3052
#2	MeSH descriptor: [Fathers] this term only	174
#3	MeSH descriptor: [Mothers] this term only	1770
#4	(parent* or father* or mother*):ti,ab,kw	57361
#5	#1 or #2 or #3 or #4	57361
#6	MeSH descriptor: [Health Education] this term only	3877
#7	MeSH descriptor: [Counseling] this term only	4146
#8	(educat* or inform* or counseling or counselling):ti,ab,kw	222487
#9	#6 or #7 or #8	222487
#10	MeSH descriptor: [Vaccines] this term only	4215
#11	MeSH descriptor: [Vaccination] this term only	2439
#12	(vaccin* or immuni*):ti,ab,kw	25101
#13	#10 or #11 or #12	25101
#14	MeSH descriptor: [Infant] this term only	21318
#15	MeSH descriptor: [Child] explode all trees	55220
#16	(child* or infant*):ti,ab,kw	182440
#17	#14 or #15 or #16	182440
#18	#9 and #13 and #17	1728
#19	#5 and #18	987
#20	#19 in Trials	950

To find the record:

Randomised cluster trial to support informed parental decision-making for the MMR vaccineis

1. Formulate a SR question

Question	Q-Type	Study design
How good is this test to detect this problem?	Diagnostic accuracy	Cross sectional
What is causing this problem?	Etiology	Cohort Case control
What are the side effects of treating this problem?	Harm	Cohort Case control
How many have this problem?	Prevalence	Cross sectional
How can we prevent this problem?	Prevention	Randomized controlled trial (RCT)
What will happen with those that have this problem?	Prognosis	Cohort
How do we experience this problem?	Qualitative	Qualitative research
How can we fix this problem?	Therapy	Randomized controlled trial (RCT)

2. Identify relevant <u>review</u> and <u>search</u> concepts

What is the effect of face-to-face interventions for informing or educating parents about early childhood vaccination?

5 Review concepts				
1. Population	2. Intervention	3. Comparison	4. Outcome	5. Study design
Parents	Education about childhood vaccination	No education	Vaccination coverage	RCTs

3 Search concepts				
1. Population	2. Intervention	Comparison	Outcome	3. Stud ydesign
Parents	Education about childhood vaccination	-	-	RCTs

3a. Identify relevant search terms for selected search concepts

What is the effect of face-to-face interventions for informing or educating parents about early childhood vaccination?

1. Population	2. Intervention	Comparison	Outcome	3. Study design
parent father mother	education vaccines vaccination Immunization immunisation child children childhood	-	-	RCT

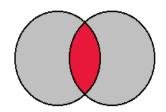
3b.
Combining
search
terms, lines
and concepts

```
#1. Population term 1
#2. Population term 2
#3 #1 OR #2 [One P-concept]
#4. Intervention term 1
#5. Intervention term 2
#6. Intervention term 3
#7. #4 OR #5 OR #6 [One I-concept]
#8. Study design term 1
#9. Study design term 2
#10. Study design term 3
#11. #8 OR #9 OR #10 [One S-concept]
#12. #3 AND #7 AND #11 [Final line]
```

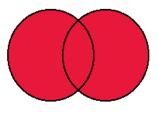
```
#1. Population term 1
#2. Population term 2
#3 #1 OR #2 [One P-concept]
#4. Intervention term 1
#5. Intervention term 2
#6. Intervention term 3
#7. (#4 OR #5) AND #6 [Two I-concepts]
#8. Study design term 1
#9. Study design term 2
#10. Study design term 3
#11. #8 OR #9 OR #10 [One S-concept]
#12. #3 AND #7 AND #11 [Final line]
```

Boolean operators

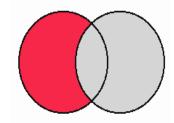
MMR vaccine AND uptake
MMR vaccine AND immunization



MMR vaccine OR uptake
MMR vaccine OR immunization



MMR vaccine NOT uptake



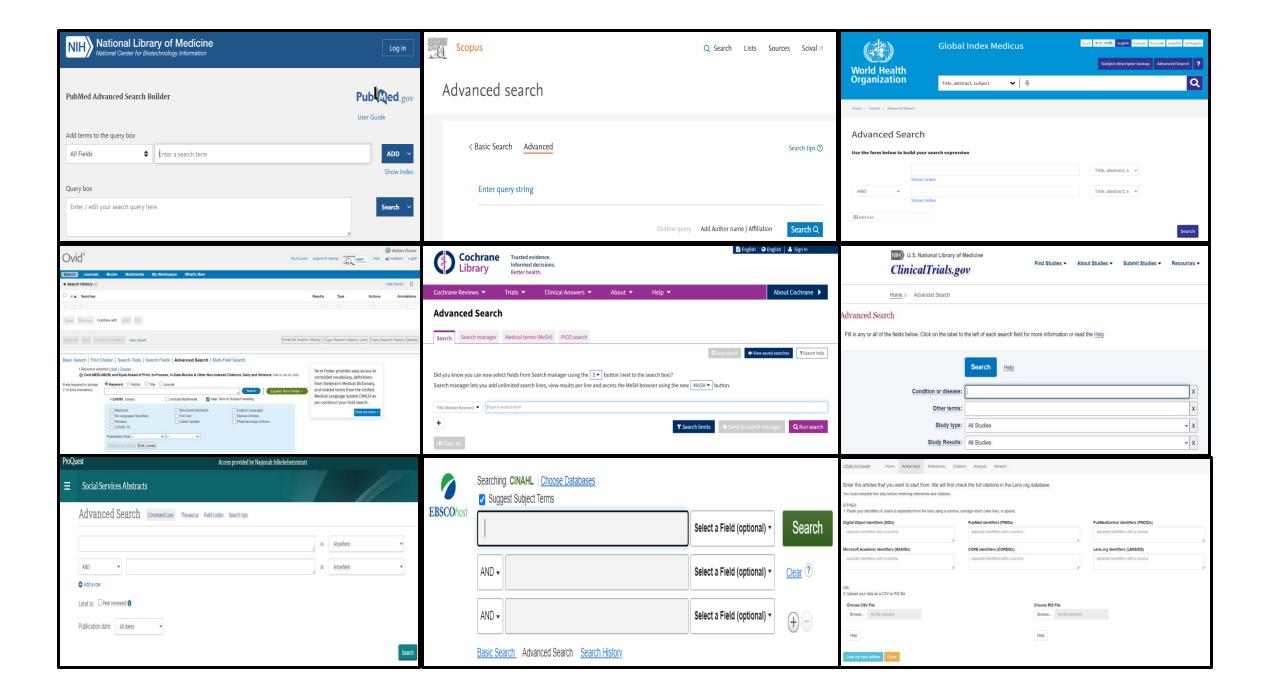
September 15, 2022 11

4a. Select relevant databases and other sources

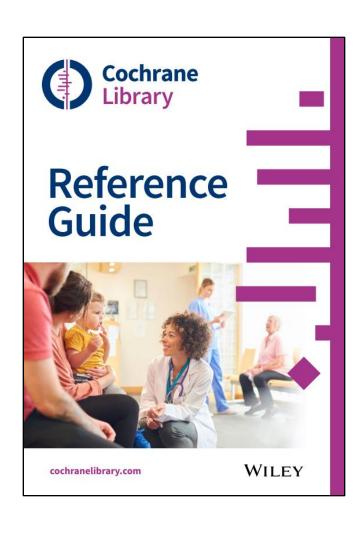
Topic	Database	Study design
All topics	Web of Science Scopus	Mixed Mixed/qualitative
Health and medicine	PubMed*/MEDLINE Cochrane CENTRAL (intervention studies) Embase LILACS (Latin America and Caribbean)* Global Index Medicus (LMIC)*	Mixed RCT and CCT Mixed Mixed Mixed
Nursing	CINAHL	Mixed/qualitative
Mental health	PsycINFO	Mixed
Education	ERIC	Mixed
Social Sciences	Sociological Abstracts	Mixed
Anthropology	Anthropology Plus	Mixed
	*Free of charge	

4b. Additional sources

- Trial registries for ongoing trials
 - International Clinical Trials Registry Platform (ICTRP)
 - ClinicalTrials.gov
- Grey literature
 - "... not controlled by commercial publishers ..."
- Citation searching
 - to find articles that relevant studies have cited (backward citation searching)
 - to find articles that have cited the relevant studies (forward citation searching)



5. Check search techniques in databases selected

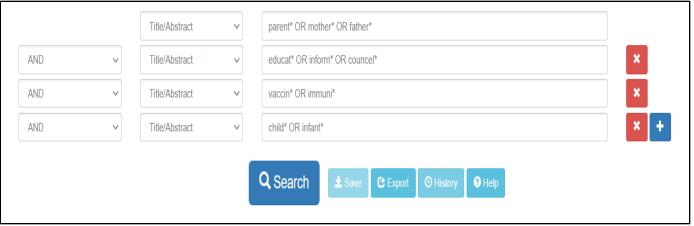


Reference Guides or Help files for each database

- Index terms
- Publication type terms
- Available search fields
- Boolean operators
- Truncation signs
- Phrase searching

6a. Develop strategies and perform the search





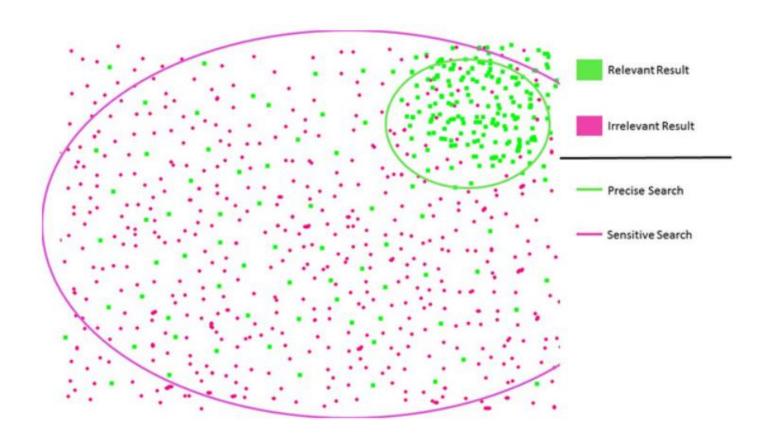
6b. Develop strategies and perform the search

CENTRAL, Cochrane Library

		Results
#1	MeSH descriptor: [Parents] this term only	3052
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#18	#9 and #13 and #17 [INTERVENTION]	1728
#19	#5 and #18 [POPULATION + INTERVENTION]	987
#20	#19 in Trials	950

- Subject headings
- Text words
- Truncation
- Boolean operators
- Combined terms (#4)
- Combined lines (#5)
- Combined concepts (#19)

Wide/sensitive vs. Narrow/precise search



https://libguides.mdu.se/c.php?g=686636&p=4908147

Wide vs. Narrow search

What is the effect of face-to-face interventions for informing or educating parents about early childhood vaccination?

	Wide		
#1	(parent* or father* or mother*):ti,ab,kw	63139	
#2	(educat* or inform*):ti,ab,kw	90790	
#3	(vaccin* or immuni*):ti,ab,kw	34338	
#4	#1 and #2 and #3	372	
Fewer concepts and more records			
What could an even wider strategy look like?			

	Narrow		
#1	(parent* or father* or mother*):ti,ab,kw	63139	
#2	(educat* or inform*):ti,ab,kw	90790	
#3	(vaccin* or immuni*):ti,ab,kw	34338	
#4	child*:ti,ab,kw	167503	
#5	#1 and #2 and #3 and #4	285	
More concepts and fewer records			
What could an even narrower strategy look like?			

Why does a search strategy retrieve qualitative studies when we have searched for RCTs?

TI - Aspects Influencing Access to HIV/AIDS Services among Afghan Immigrants in Iran: A Qualitative Study.

AB - BACKGROUND: A successful response to the risk of human immunodefficiency virus (HIV) infection among immigrants requires improved access to HIV prevention, diagnosis, and treatment services. However, most immigrants face significant challenges in accessing HIV/AIDS services. The aim of this study was to explore the aspects influencing access to HIV/AIDS services among Afghan immigrants in Iran. METHODS: This was a qualitative study using conventional content analysis that was conducted from June 2018 to April 2020 in Tehran, Iran. Purposeful sampling method was performed. We conducted 25 semi-structured interviews with three groups of stakeholders including Afghan

PT - Journal Article

PT - Research Support, Non-U.S. Gov't

TA - Int J Community Based Nurs Midwifery

JT - International journal of community based nursing and midwifery

JID - 101615484

SB - IM

MH - *Emigrants and Immigrants

MH - *HIV Infections/diagnosis

MH - Humans

MH - Iran/epidemiology

MH - Qualitative Research

MH - Social Stigma

(randomized controlled trial OR controlled clinical trial).pt. OR (randomized OR randomised OR placebo OR randomly OR trial OR groups).ti,ab.

PRESS - Peer Review of Electronic Search Strategies

Simplified version of: McGowan J, Sampson M, Salzwedel DM, Cogo E, Foerster V, Lefebvre C. PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. J Clin Epidemiol. 2016;75:40-46

Translation of the research question	 Does the search strategy match the research question/PICO?
Boolean and proximity operators	Are Boolean or proximity operators used correctly?
Subject headings/Index terms	Are the subject headings relevant?
Text word	 Does the search include all spelling variants? Does the search include all synonyms? Does the search capture relevant [and correct] truncation?
Spelling, syntax and line numbers	 Are there any spelling errors? Are there any errors in system syntax; e.g., the use of a truncation symbol from a different search interface? Are there incorrect line combinations or orphan lines?
Limits and filters	Are all limits and filters used appropriately and are they relevant given the research question?

7. Report the search process

METHODS

We will search the following databases and sources for related reviews, primary studies and on-going trials:

- Epistemonikos, Epistemonikos foundation
- Cochrane Central Database of Controlled Trials (CENTRAL), part of Cochrane Library, Wiley
- PubMed, NLM
- Embase, Ovid
- CINAHL, EbscoHost
- International Clinical Trials Registry Platform (ICTRP), WHO
- ClinicalTrials.gov, NIH

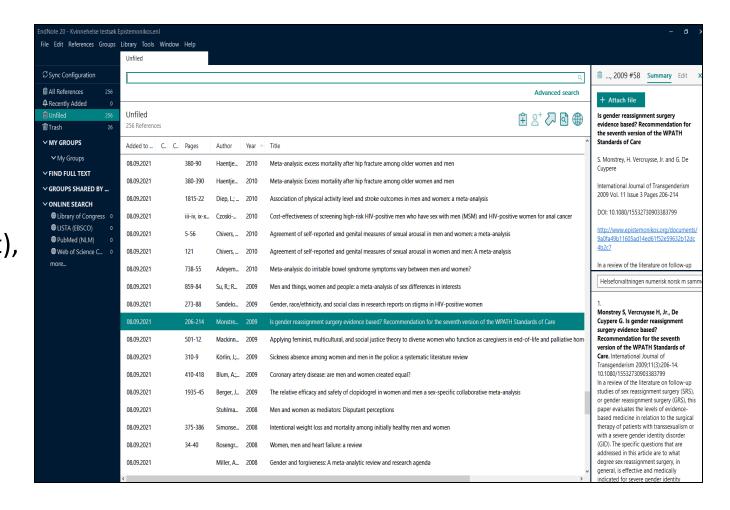
We will also:

- Screen reference lists of all included studies
- Contact experts in the field
- Conduct a cited reference search for all included primary studies using Google Scholar

See Appendix 1 for the search strategy we will use in CENTRAL, Cochrane Library

The searching is done – what now?

- 8. Export references to a reference management system (e.g. EndNote)
- **9.** Screen (on title and abstract), and select relevant references
- **10.** Find and read full text



Get access with your ID and password



Fagside for medisin og helse

Subject page for medicine and health



Nyheter og fagressurser for medisin, sykepleie, helse og omsorgsfag









Databases/Articles

COVID-publications - summarized knowledge and clinical guidelines

Article Search

- PubMed medicine and health science [How to use new PubMed guide from the library]
- Medline medicine and health science
- EMBASE medicine, health science and pharmacology
- Cochrane Library medicine and health science (systematic reviews)
- SveMed+ medicine and health science (in Norwegian)
- Cinahl nursing
- PsycINFO psychology and psychiatry
- SPORTDiscus sports and movement science
- PEDro physiotherapy evidence
- OT Seeker occupational therapy
- AMED physiotherapy and occupational therapy
- Sociological Abstracts sociology and social work
- Social Services Abstract social work
- ERIC pedagogy
- Idunn articles in nordic academic journals from the Scandinavian University Press (Universitetsforlaget)
- Atekst articles in Norwegian newspapers [Limited access]
- Web of Science all subject areas [User guide from publisher]
- SCOPUS all subject areas [User guide from publisher]
- Google Scholar all subject areas [User guide from Google]
- Oria all subject areas [video on how to order documents]

Libraries	
Opening hours, loans, g equipment, events and	
Shortcuts:	
Søkestua: drop-in guida	ance
Oria	
PubMed	
E-resources for medicir	ne and health
NTNU Academic writing	3
VPN – connect to NTNU	I-network from home

Search the blog

enter search terms

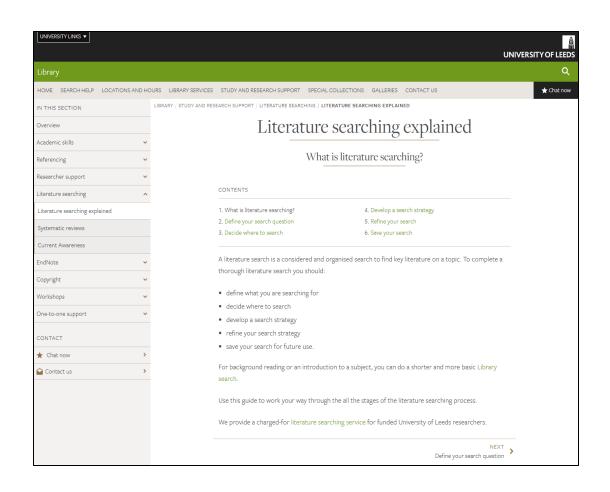
Literature search help at some Norwegian universities and university colleges – not comprehensive

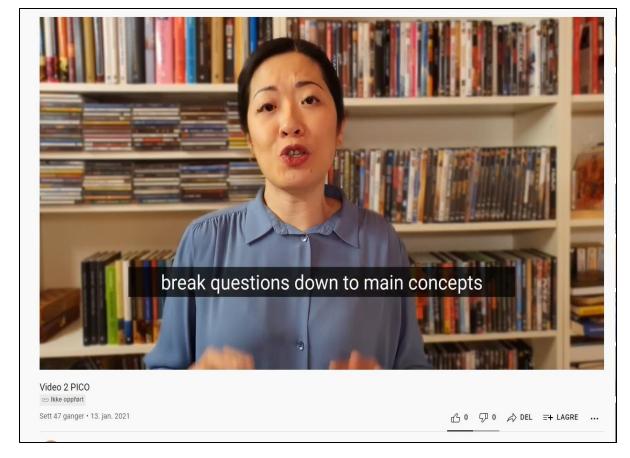
For help with the literature search, contact the library at your university. When you contact the library, it is important to clearly state that you are writing a systematic review as one of the articles in your PhD. Hence systematic searches in relevant databases are needed and they need to be documented in a reproducible way. It is also preferable if you prior to contacting the library have defined your research question, using PICO or equivalent. You might find PhD on track helpful.

All the below libraries provide information in English and Norwegian.

University	Web Resources	Courses and training
University of Oslo	<u>Literature searches for</u>	Courses in EndNote and Rayyan
	systematic reviews	Rayyan Resources learn it yourself -
		manuals in English and Norwegian
University of Bergen	<u>Systematic reviews</u>	Courses in EndNote and Zotero
NTNU	Courses and help from the	Courses in EndNote and Zotero
	library	
University of South-	<u>Search guides</u>	Courses in EndNote and Zotero
Eastern Norway		
OsloMet University	Courses and guidance from	Courses in, EndNote, Zotero and
	the University Library	Rayyan
University of	Search for scientific literature	Courses in, EndNote, Zotero and
Stavanger		Rayyan

See: Information packet





Next: Search seminar - September 26

Hand on searching

Exercise 1: Check search strategy using PRESS

Exercise 2a and 2b: 'Found and missed'

Exencise 3a: Search Epistemonikos

Exercise 3b: Search PubMed

- Use our predefined search terms, OR
- Bring your own terms related to your own research question