



Coffee Lectures

Systematic Research PICO process in PubMed and Embase

Bettina Etzel
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New knowledge in 10 minutes:

- Create a research question with PICO
- Searching PubMed and Embase

PICO framework for clinical questions

«Is physiotherapy more effective than rest for rehabilitation of ankle sprains?»

P	P atient, P opulation, or P roblem	Persons with a sprained ankle
I	I ntervention, P rognostic Factor, or E xposure	physiotherapy
C	C omparison or I ntervention (if appropriate)	rest
O	O utcome you would like to measure or achieve	Faster return to activity

Formulating a search phrase

«Is physiotherapy more effective than rest for rehabilitation of ankle sprains?»

P (atient, Problem)	ankle sprain*		
I (ntervention)	physiotherapy	exercise therapy	
C (omparison)	rest	immobilization	
O (utcome)	return to sport	recovery	pain reduction

AND
(Search
History)

OR

((ankle sprain*)) AND ((physiotherapy) OR (exercise therapy)) AND ((rest) OR (immobilization)) AND ((pain reduction) OR (return to sport) OR (recovery))

PICO in PubMed – Use Search History

Query box

(((ankle sprain) AND (physiotherapy OR exercise therapy)) AND (rest OR immobilization)) AND (pain reduction OR return to sport OR recovery)



Search ▾

Adapt and combine search strategy

History and Search Details

Download Delete

Search	Actions	Details	Query	Date: 31.1.25	Results	Time
#13	...	>	Search: (((ankle sprain) AND (physiotherapy OR exercise therapy)) AND (rest OR immobilization)) AND (pain reduction OR return to sport OR recovery)		89	08:32:05
#12	...	>	Search: pain reduction OR return to sport OR recovery		768,789	
#10	...	>	Search: rest OR immobilization		370,267	
#9	...	>	Search: physiotherapy OR exercise therapy		339,382	
#8	...	>	Search: ankle sprain		26,237	

Search every single concept for itself, try to combine them and adapt the single concepts (add, delete, manipulate keywords)

PICO in Embase – Try PICO framework

PICO

Quick **PICO** PV Wizard Medical device Advanced Drug Disease Device Citation information Query translator

Default strategy: /exp ▾

Population e.g. diabetes

ankle sprain /exp ▾ Explosion 5 synonyms :all ▾ All fields

Intervention e.g. insulin

physiotherapy /exp ▾ Explosion OR ▾ kinesiotherapy /exp ▾ Explosion 25 synonyms :all ▾ All fields

Comparison e.g. placebo

immobilization /exp ▾ Explosion 4 synonyms :all ▾ All fields OR ▾ rest /exp ▾ Explosion OR ▾ rest :ti,ab ▾ Title or Abstract

Outcome e.g. risk

pain /exp ▾ Explosion 8 synonyms :all ▾ All fields OR ▾ return to sport /exp ▾ Explosion 6 synonyms :all ▾ All fields OR ▾ **recovery :ti,ab** ▾ Title or Abstract

Other Frameworks

The SPICE framework is useful for qualitative research topics evaluating the outcomes of a service, project or intervention.

SPICE Framework		
S	Setting	What is the location or environment of the research or study? (e.g. South Korean Universities, a hospital emergency room)
P	Perspective	Who is the group being studied? (e.g. adolescents, rural doctors)
I	Intervention	What is the intervention/interest/exposure that you are evaluating?
C	Comparison	What is the alternative strategy you would like to compare to the intervention? May include no intervention
E	Evaluation	What is the result or outcome measures? (e.g. reduced anxiety, improved memory)

LibGuides at The Australian National University. Frameworks: PICO, SPIDER, SPICE - Systematic Reviews in the Sciences . Retrieved February 28, 2025, from <https://libguides.anu.edu.au/c.php?g=916656&p=7064999>



Thanks for your attention!

Next Coffee Lecture:

**New AI supported tools for literature
research at ETH**

12 March 2025, 3.15 p.m.

www.library.ethz.ch/coffee-lectures