

Workshop Systematic Reviews: basiskennis en dienstverlening

Introductie

Harrie van der Meer
24 juni 2021

Workshops / presentaties

Nicolette Siep (Universiteit Maastricht)
Hans Ket (Vrije Universiteit Amsterdam)

Norma Fötsch (Radboud Universiteit)
Thomas Pelgrim (Hogeschool Arnhem en Nijmegen)

Organisatie: SHB/UKB Werkgroep Information Literacy

Monique Schoutsen: Radboud Universiteit, Nijmegen
Lieke Haverkort: Hogeschool Arnhem en Nijmegen (HAN)
Harrie van der Meer: Universiteit van Amsterdam / Hogeschool van Amsterdam

PROGRAMMA

10.00 – 10.05	Inloop en introductie
10.05– 10.30	Systematic reviews: de basis door dr. Nicolette Siep (Universiteit Maastricht)
10.30– 11.00	Systematic reviews op het Medische vakgebied door Hans Ket (Vrije Universiteit Amsterdam)
11.00 – 11.15	PAUZE
11.15 – 11.45	Systematic reviews op het gebied van de managementwetenschappen door mr. Norma Fötsch (Radboud Universiteit)
11.45– 12.15	Systematic reviews op het HBO door MsC. Thomas Pelgrim (Hogeschool Arnhem en Nijmegen)
12.15 – 12.30	Afronding en gelegenheid tot het stellen van vragen

Systematic



De basis

Dr. Nicolette Siep
Universiteit Maastricht, 24 juni 2021

UM Diensten

Literature search & systematic reviews

Research Support

Open Access ▾

Data Management ▾

Research Information ▾

Open Science ▾

 | [Research Support](#) | Literature support

Literature search & systematic reviews

Academic reviews serve as a solid basis as to establish the latest state of affairs on a specific topic. Authors of scoping reviews, systematic reviews and meta-analyses should aim to include all available relevant studies. The systematic literature search therefore needs to be of the highest quality.

Strict guidelines for literature search are laid out in the Prisma Statements, Cochrane Handbook, JBI Reviewer's Handbook and [PRESS process in the PRESS statement](#). These

Systematic literature search
for writing a review

UM Diensten

Basic support

This option offers a free consultation on the following topics:

- development of an effective research question
- discuss your search term selection optimized for PubMed
- recommend databases to include in the search
- review your search strategy
- provide instruction on advanced database searching techniques
- provide instruction on the use of citation management software (Endnote) for organizing retrieved references.

Note that the information specialist does not perform the search, (s)he only provides guidance and feedback.



Kosten: -

UM Diensten

Full support

The second option expands significantly on the basic support. Similar to the basic support package, the information specialist will help you to:

- develop an effective research question
- develop a search strategy optimized for PubMed
- select other appropriate database to include in the search
- review the overall search strategy.

Moreover, the information specialist will advice and help you to:

- translate your optimised search to other databases
- run the final searches in the selected databases
- combine all search results in one Endnote library.

The final product of the full support is an Endnote library containing all bibliographic records identified in the search.

Kosten: +/- 950 euro

Aanvraag

Systematic review support request form

Name *

First

Last

Email address *

Principal
investigator /
Promotor *

Institute *

☐ Maastricht University

☐ azM / MUMC

☐ AVM

☐ Other

Casus



Poulami

Siep, Nicolette (UB)

 4

RE: Search and documents

 Systematic Review - Overview.docx 38 KB	 5 references.docx 26 KB
 MeSH, Tiab and PICO for Research question 1.docx 27 KB	 MeSH, Tiab and PICO for Research question 2.docx 26 KB

Dear Nicolette,

Many thanks for your email and for agreeing to help me with my Systematic Review.

Attached is a brief overview of my SR, my initial search strings and 5 relevant references.

Before you schedule an online meeting, I just wanted to inform you that I am mostly available on all days, except Mondays (12:30 pm -1:30 pm DLT) and Thursdays (12:30 pm -1:30 pm DLT).

Look forward to our meeting soon.

Best regards, Poulami

Casus

- Startende, zwangere PhD student met een achtergrond in biomedische wetenschappen
- Door lockdown en zwangerschap momenteel verblijvende in India
- Heeft van promotor de opdracht gekregen om binnen 0,5 - 1 jaar een systematic review te schrijven

Casus

Onderzoeksvragen

1. Zijn er betrouwbare, wetenschappelijke instrumenten voor het meten van 'body weight resilience' en 'psychosocial resilience' bij adolescenten (10 - 15 jr)?
2. Zijn deze instrumenten ook bruikbaar binnen een Indiase populatie?

Casus

 Dasgupta, Poulami (KG) Siep, Nicolette (UB) 4

RE: Search and documents

 Follow up. Start by donderdag 10 juni 2021. Due by donderdag 10 juni 2021.
This message was sent with High importance.

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 MeSH, Tiab and PICO for Research question 1.docx 27 KB	 MeSH, Tiab and PICO for Research question 2.docx 26 KB

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Welk soort review?

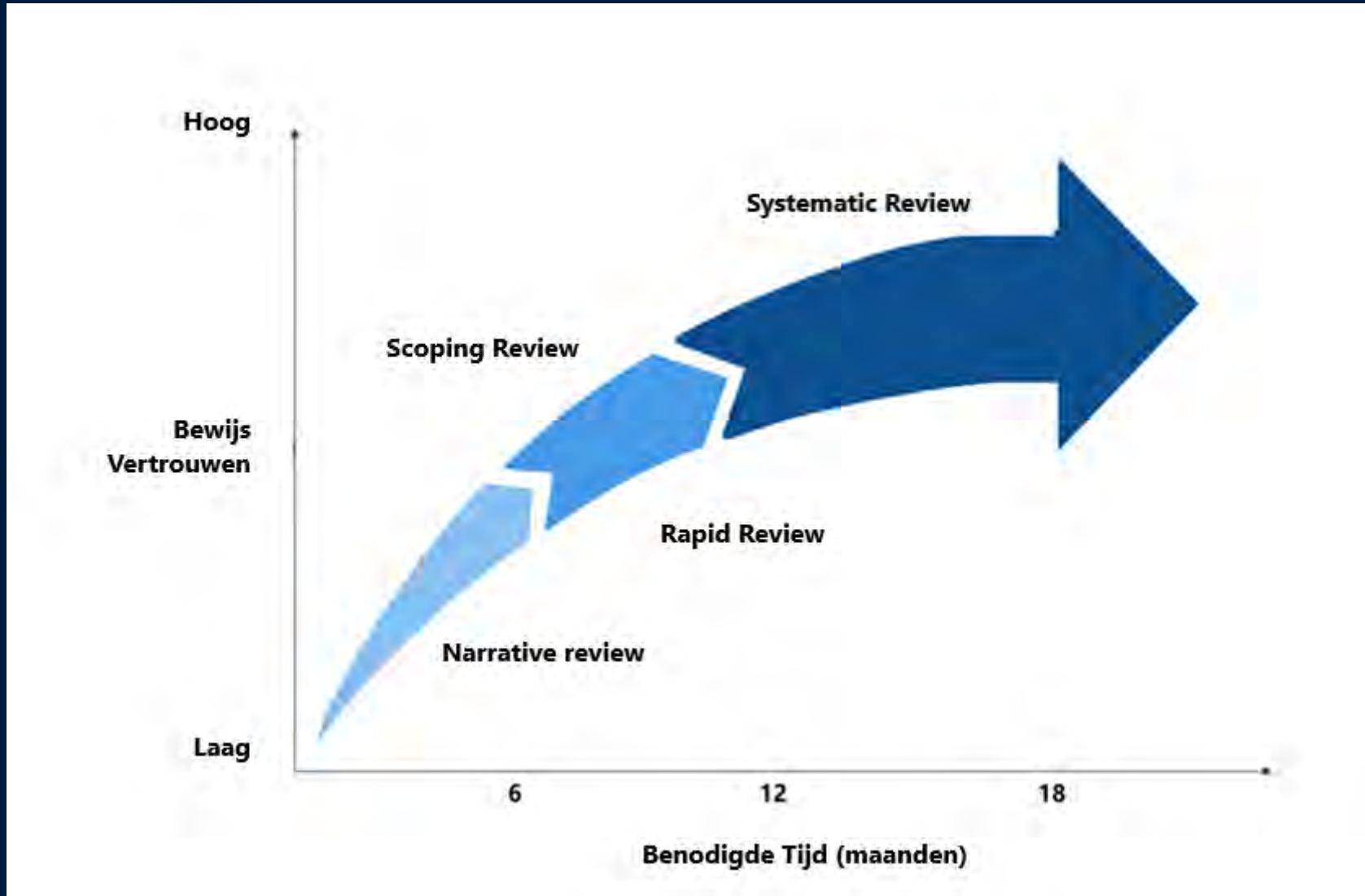


Systematic review

≠

Systematisch literatuur zoeken en dan
een review schrijven

Welke soorten reviews?



Narrative review

Een **narrative review** is het soort review die studenten schrijven, als opdracht binnen een onderwijsblok, ter ontwikkeling van hun kennis en schrijfvaardigheden

Doel

Leren zoeken naar en samenvatten van literatuurbronnen over een vooraf bepaald onderwerp

Kenmerken

- Narrative reviews hebben geen vooraf vastgestelde onderzoeksvraag of een systematische literatuurzoekopdracht, alleen een onderwerp
- Zijn niet systematisch, geen specifiek protocol, geen registraties
- Geen 'vaste' internationale standaarden > vaak handleiding onderwijsinstituut
- Reviewers vergaren meer kennis over een onderwerp, maar deze kennis is niet allesomvattend

Skills Modules

Information Literacy

[Information Literacy](#) ▾ [Student](#) ▾ [Teacher](#) ▾

[Home](#) | [Education Support](#) | [Information Literacy](#) | **[Student](#)** | [Skills Modules](#)

Resource Discovery

Basic Search

[Go to online module](#)

Databases

[Go to online module](#)

Databases FDR

[Go to online module](#)

Evaluating the Search

[Go to online module](#)

Plagiarism

[Go to online module](#)

Systematic Search

[Go to online module](#)

Narrative review support

[Collections](#) ▾[Use the library](#) ▾[Skills & Support](#) ▾[News & Events](#) ▾[About](#) ▾



Peer Point

Library Support

[Library](#)[Information Skills](#)[Workshops & Courses](#)

Peer Point – Your Guide to Writing and Research

Peer Point provides free research assistance to students studying at Maastricht University. Peer Point is staffed by students trained at responding critically and constructively to the work of their peers. Our mission is to help you improve your research skills.



Scoping review

In een **scoping review** wordt een inventarisatie van de bestaande 'evidence' gemaakt.

Scoping reviews betreffen meestal een breed (zorg/onderzoeks)gebied.

Doel

- Het in kaart brengen van kennislacunes, bijvoorbeeld tbv het opstellen van een onderzoeksagenda.
- Ter verheldering van bepaalde concepten, hun definities en 'onderzoeksgrenzen'.
- Om te verhelderen welk type onderzoek er wordt gedaan binnen een topic/onderzoeksveld.
- Ter voorbereiding van een systematische review.

Scoping review

Kenmerken

- Brede onderzoeksvraag
- Synthese van 'evidence' met betrekking tot een actueel en relevant onderwerp
- Focus op de status van huidige onderzoeksactiviteit (niet zozeer kwaliteit van literatuur)
- Inclusie van ongepubliceerde werken (congres abstracts)
- [PROSPERO](#) accepteert (vooralsnog) geen registratie van scoping review protocollen.

Echter, er zijn wel andere open onderzoek repositories (zie bijv. <https://osf.io/>, <https://figshare.com>) waar je een scoping protocol kunt registreren

- Rapportage volgens vooraf vastgestelde standaarden ([PRISMA-ScR](#))....

Scoping review

Scoping Reviews (PRISMA-ScR) Checklist

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	

<https://wiki.jbi.global/display/MANUAL/Appendix+11.2+PRISMA+ScR+Extension+Fillable+Checklist>

Systematic review

Systematische reviews zijn bedoeld om een uitgebreide, onbevooroordeelde synthese te bieden van ALLE relevante onderzoeken met behulp van rigoureuze en transparante methoden.

Doel

Internationaal bewijsmateriaal synthetiseren om praktijk en beleid te informeren, daarbij zorgdragende dat de resultaten zowel betrouwbaar als zinvol zijn voor eindgebruikers.

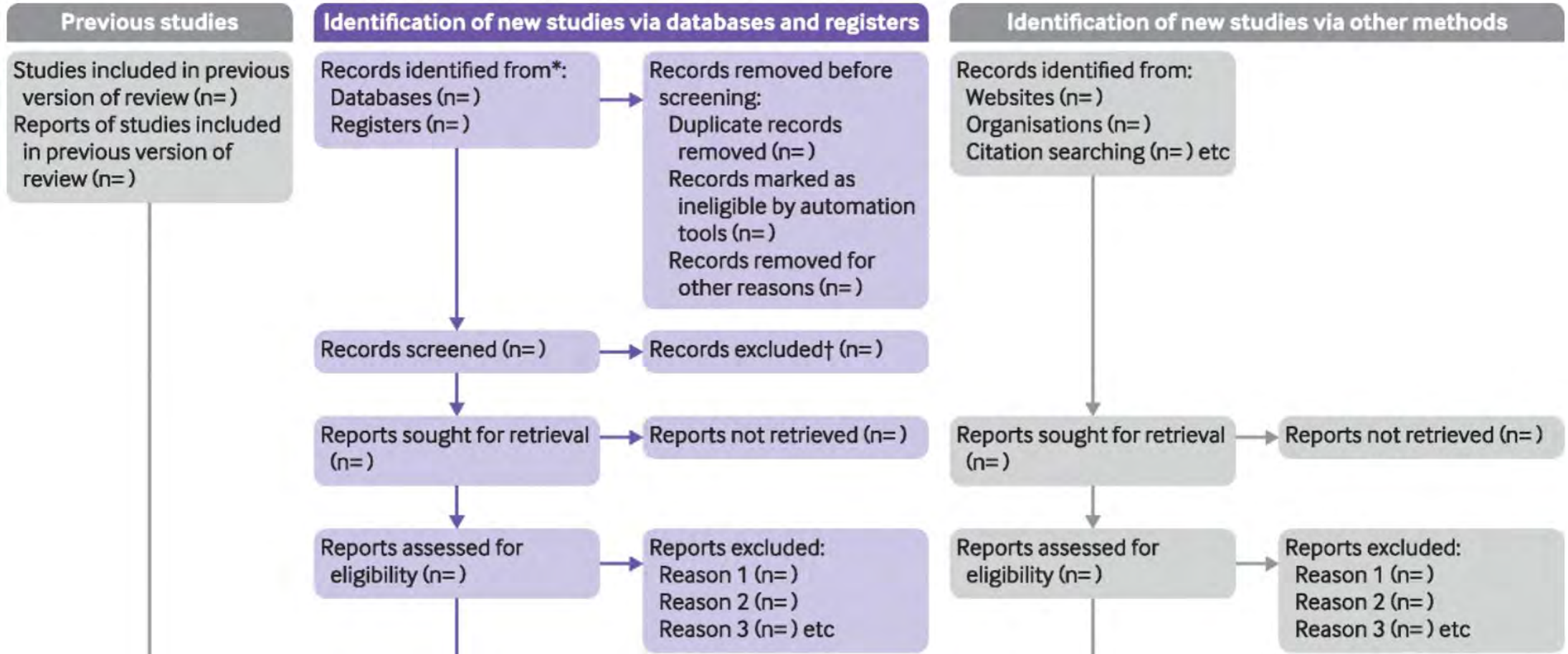
Systematic review

kenmerken

- Specifieke onderzoeksvraag ([PICOT](#))
- Samenwerking in reviewgroepen met gespecialiseerde vaardigheden ([Cochrane](#) > oa support door informatiespecialist!)
- Protocolregistratie in [PROSPERO](#) en publicatie in [Systematic Reviews Journal](#)
- Allesomvattende en systematische zoekopdracht naar international literatuur ([3-5 databases](#))
- Vooraf vastgestelde inclusie- en exclusiecriteria
- [Risk of bias](#) assesement, [Benefit and Harm](#) assesement
- Elke stap wordt uitgevoerd door 2 reviewers, onafhankelijk van elkaar
- Tijdsintensief (1.5-2 jr)
- Rapportage volgens standaarden ([PRISMA](#))...

Systematic review

From: [The PRISMA 2020 statement: an updated guideline for reporting systematic reviews](#)



<https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-021-01626-4/figures/1>

Rapid review

Een **rapid review** is het soort review waarbij de protocollaire onderdelen en standaarden van een systematische review vereenvoudigd zijn, of worden overgeslagen

Doel

Informatie bemachtigen nav een specifieke, urgente onderzoeksvraag ter ondersteuning van beslissingen in methodologie en/of toepassingen.

Rapid review

Kenmerken

- Specifieke onderzoeksvraag ([PICOT](#))
- Protocol registreren in [PROSPERO](#) ~~en gepubliceerd in Sys Rev Journal~~
- Allesomvattende en systematische literatuurzoekopdracht(~~5~~ [3 databases](#))
- Vooraf vastgestelde inclusie- en exclusiecriteria
- ~~Alle talen. Alleen Engelstalige bronnen~~
- [Risk of bias assessment](#) (Cochrane), ~~Harms reporting~~
- Elke stap uitgevoerd door ~~2~~ 1 reviewers, ~~onafhankelijk~~
- (Nog) geen reporting standards ([PRISMA-RR](#))
- En meer...

Table 1. Cochrane rapid review methods recommendations

Setting the research question—topic refinement

- Involve key stakeholders (e.g., review users such as consumers, health professionals, policymakers, decision-makers) to set and refine the review question, eligibility criteria, and the outcomes of interest. Consult with stakeholders throughout the process to ensure the research question is fit for purpose, and regarding any ad-hoc changes that may occur as the review progresses. (R1)
- Develop a protocol that includes review questions, PICOS, and inclusion and exclusion criteria.

Setting eligibility criteria

- Together with key stakeholders:

Clearly define the population, intervention, comparator and outcomes.

- Limit the number of interventions (R2) and comparators (R3).
- Limit the number of outcomes, with a focus on those most important for decision-making. (R4)
- Consider date restrictions with a clinical or methodological justification. (R5)
- Setting restrictions are appropriate with justification provided. (R6)
- Limit the publication language to English; add other languages only if justified. (R7)
- Systematic reviews (SRs)^a should be considered a relevant study design for inclusion. (R8)
- Place emphasis on higher quality study designs (e.g., SRs or RCTs); consider a stepwise approach to study design inclusion. (R9)

Searching

- Involve an information specialist.
- Limit main database searching to CENTRAL, MEDLINE (e.g., via PubMed), and Embase (if available access). (R10)
- Searching of specialized databases (e.g., PsycInfo and CINAHL) is recommended for certain topics but should be restricted to 1–2 additional sources, or omitted if time and resources are limited. (R11)
- Consider peer review of at least one search strategy (e.g., MEDLINE). (R12)
- Limit gray literature and supplemental searching (R13). If justified, search study registries and scan the reference lists of other SRs, or included studies after screening of the abstracts and full-texts.

Study selection

Title and abstract screening

- Using a standardized title and abstract form, conduct a pilot exercise using the same 30–50 abstracts for the entire screening team to calibrate and test the review form.
- Use two reviewers for dual screen of at least 20% (ideally more) of abstracts, with conflict resolution.
- Use one reviewer to screen the remaining abstracts and a second reviewer to screen all excluded abstracts, and if needed resolve conflicts. (R14)

Full-text screening

Hoe kiezen?



Casus

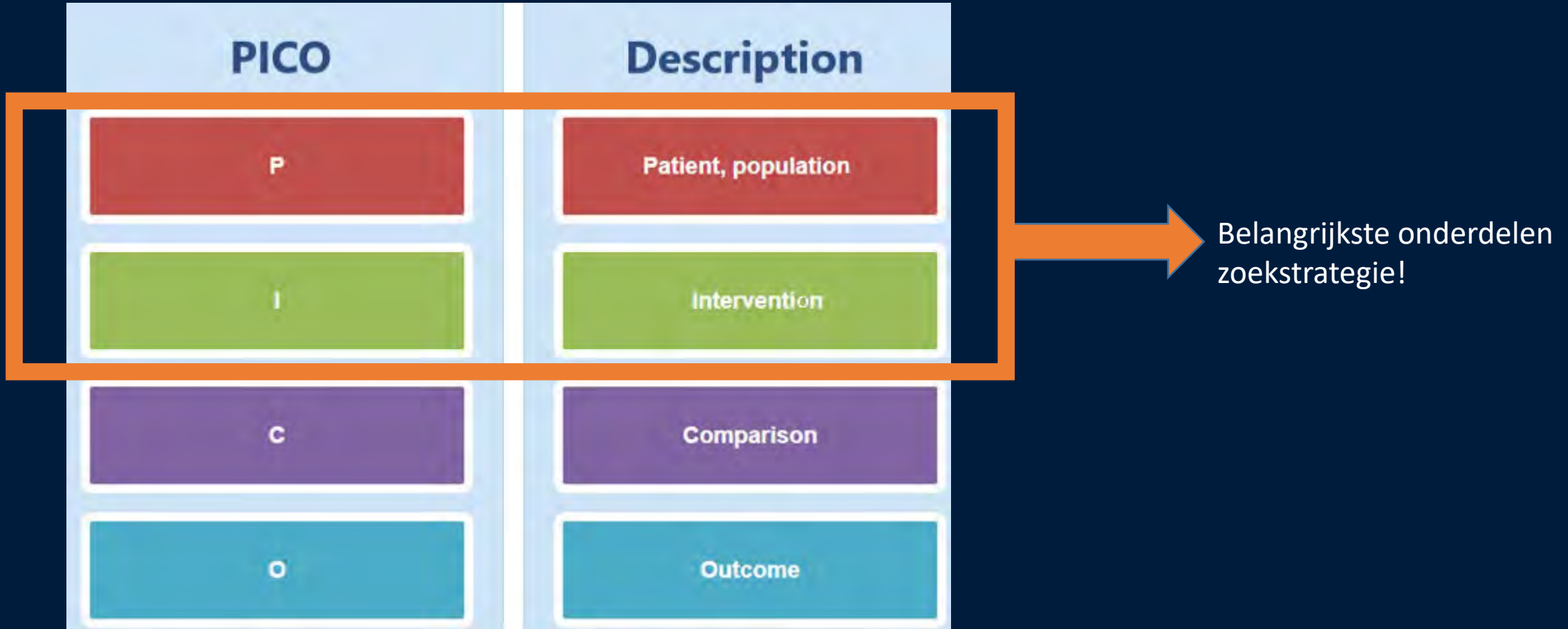
Systematic review?

Tijdsduur: 0.5 – 1 jaar

Onderzoeksvragen

1. Zijn er betrouwbare, wetenschappelijke instrumenten voor het meten van 'body weight resilience' en 'psychosocial resilience' bij adolescenten (10 - 15 jr)?
2. Zijn deze instrumenten ook bruikbaar binnen een Indiase populatie?

Onderzoeksvraag: PICO



Andere modellen...

CoCoPop = Condition, Context, Population

Ref: [Aromataris, E., & Munn, Z. \(2017\). Joanna Briggs Institute reviewer's manual. The Joanna Briggs Institute.](#)

PEO = Population, Exposure of Interest, Outcome or Response

Ref: [Aromataris, E., & Munn, Z. \(2017\). Joanna Briggs Institute reviewer's manual. The Joanna Briggs Institute. Available from](#)

PICOS = Population or Problem, Intervention or Exposure, Comparison or Control, Outcome, Study Type

Ref: Heneghan, C., & Badenoch, D. (2006). Evidence-based medicine toolkit. London: BMJ Books.

SPIDER = Sample, Phenomenon of interest, Design, Evaluation, Research Type

[Methley, A. M., Campbell, S., Chew-Graham, C., McNally, R., & Cheraghi-Sohi, S. \(2014\). PICO, PICOS and SPIDER: a comparison study of specificity and sensitivity in three search tools for qualitative systematic reviews. BMC health services research, 14, 579.](#)

PICOT = Population or Problem, Intervention or Exposure, Comparison or Control, Outcome, Time

Richardson, W. S., Wilson, M. C., Nishikawa, J., & Hayward, R. S. (1995). The well-built clinical question: A key to evidence-based decisions. ACP journal club, 123(3), A12-A12.

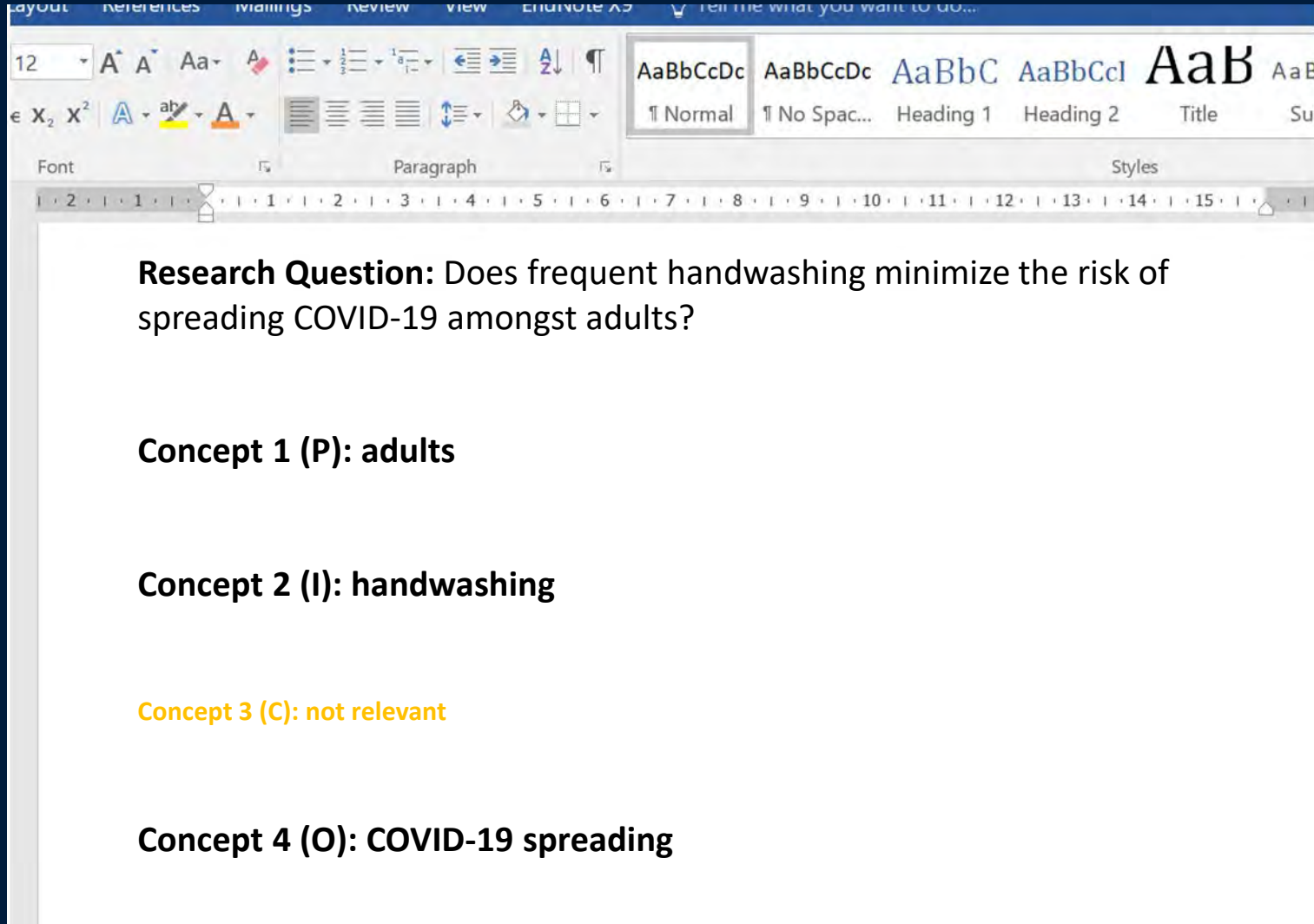
PIRD = Population, Index Test, Reference Test, Diagnosis of Interest

[Aromataris, E., & Munn, Z. \(2017\). Joanna Briggs Institute reviewer's manual. The Joanna Briggs Institute.](#)

ECLIPSE = Expectation, Client Group, Location, Impact, Professionals, Service

[Wildridge, V., & Bell, L. \(2002\). How CLIP became ECLIPSE: a mnemonic to assist in searching for health policy/management information. Health Information & Libraries Journal, 19\(2\), 113-115.](#)

Transparantie



The image shows a screenshot of a Microsoft Word document. The ribbon at the top includes 'Layout', 'References', 'Mailings', 'Review', 'View', and 'Endnote X3'. The 'Font' section is active, showing a font size of 12, bold, italic, and underline options. The 'Paragraph' section shows bullet points, numbered lists, and indentation. The 'Styles' section shows 'Normal', 'No Spacing', 'Heading 1', 'Heading 2', 'Title', and 'Subtitle'. The document content is as follows:

Research Question: Does frequent handwashing minimize the risk of spreading COVID-19 amongst adults?

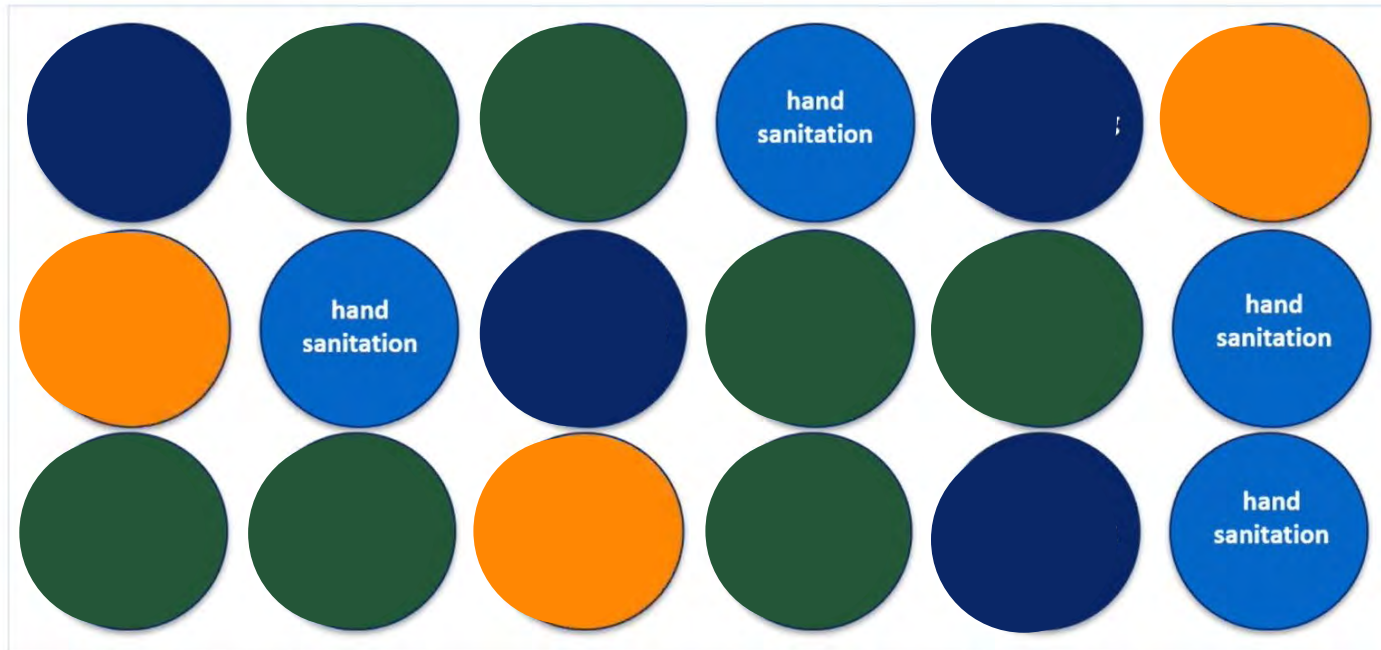
Concept 1 (P): adults

Concept 2 (I): handwashing

Concept 3 (C): not relevant

Concept 4 (O): COVID-19 spreading

Gecontroleerde vocabulaire



A Key to Database Controlled Vocabulary

Database	Controlled Vocabulary?
CINAHL	Yes, CINAHL Headings
The Cochrane Library	Yes, MeSH
Embase	Yes, Emtree
ERIC	Yes, Thesaurus
Global Health (Ovid)	Yes, Thesaurus (part of "Search Tools")
PsycINFO	Yes, Thesaurus
PubMed	Yes, MeSH
Scopus	No
Web of Science	No

Mesh Indexing

Like many manual annotation projects [26–30], MeSH indexing is a labour-intensive process. As shown in [3, 31], it can take an average of 2 to 3 months for an article to be manually indexed with relevant MeSH terms after it first enters PubMed. In response, many automated systems for assisting MeSH indexing have

← → ↺ ↻ nlm.nih.gov/bsd/dist/disted/meshtutorial/principlesofmedlinesubjectindexing/theindexingprocess/index.html

The MEDLINE Indexing Process: Determining Subject Content

NLM's MEDLINE indexers use the following steps to determine the subject content of an article:

1. Read carefully and understand the title. Not all concepts in the title are the main point of an article, such as routine research methods.
2. Scan the abstract, if present, for an overview of the article's content.
3. Scan the Introduction to locate the author's statement of purpose.
4. Read and understand the statement of purpose. The statement of purpose provides information on the subject of the article and complements or is more specific than the information obtained from the title.
5. Do not index background material.
6. Check the Materials and Methods section.
The Materials and Methods section describes techniques; however, index only those that are found in the title, statement of purpose, or are substantively discussed in the Results section. Do not index routine methods described only in the Materials and Methods. This section may also contain Publication Type information as well as important indexing concepts such as ages, sexes, and organisms.
7. Focus on the Results section. Select for indexing only those subjects actually discussed as opposed to those subjects merely mentioned. To identify indexable content, indexers may need to check section headings, paragraph headings, and items such as charts, plates, tables, and illustrations.
8. Scan the summary or conclusions to confirm the main points of the article. Do not index implications or suggested future applications.
9. Note the keywords supplied by the author or publisher for additional terms to consider for indexing.

Navigation Menu:

- Introduction
- MeSH Tree Structures
- Principles of MEDLINE Subject Indexing
 - Principles
 - The Indexing Process**
 - Finding Terms
 - Major Topics
 - Coordination
 - Depth of Indexing
 - Example of MeSH Indexing
- The MeSH Database
- Searching PubMed Using MeSH Tags



Uiteindelijke zoekstrategie

- 1 Identify relevant Keywords
- 2 Combine with OR & AND
- 3 Use truncation
- 4 Use quotations
- 5 Use 'field tags'
- 6 Incorporate MeSH

Vragen?

