

Conducting a systematic review from a limited resourced countries: the Namibian case



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Scope of the presentation

- What type of review should I conduct
- Process of systematic review
- Protocols
- Stages of systematic review protocol and completion of review
- Defining research question
- Inclusion and exclusion criteria
- Searching literature

Systematic, scoping or systematic reviews?

Narrative	Systematic	Scoping
Summary of research on a topic Informal methods of identifying and selecting	Answer a focused question Identifies, select, synthesizes and appraises a high-quality research evidence	Exploratory research questions Aims to identify themes, trends and gaps in literatures
Mainly search only one database/ not defined Cherry picking	Quality assessment of studies/ specific types of study chosen Confirm current practice, identify new practices/examine conflict results	Not focused on a specific intervention Current state of understanding, overview
General topic	Situated in practice or policy context	Key concepts and main sources of evidence on a topic Set within practice and policy context
		All types and study design are eligible

Process of conducting systematic review

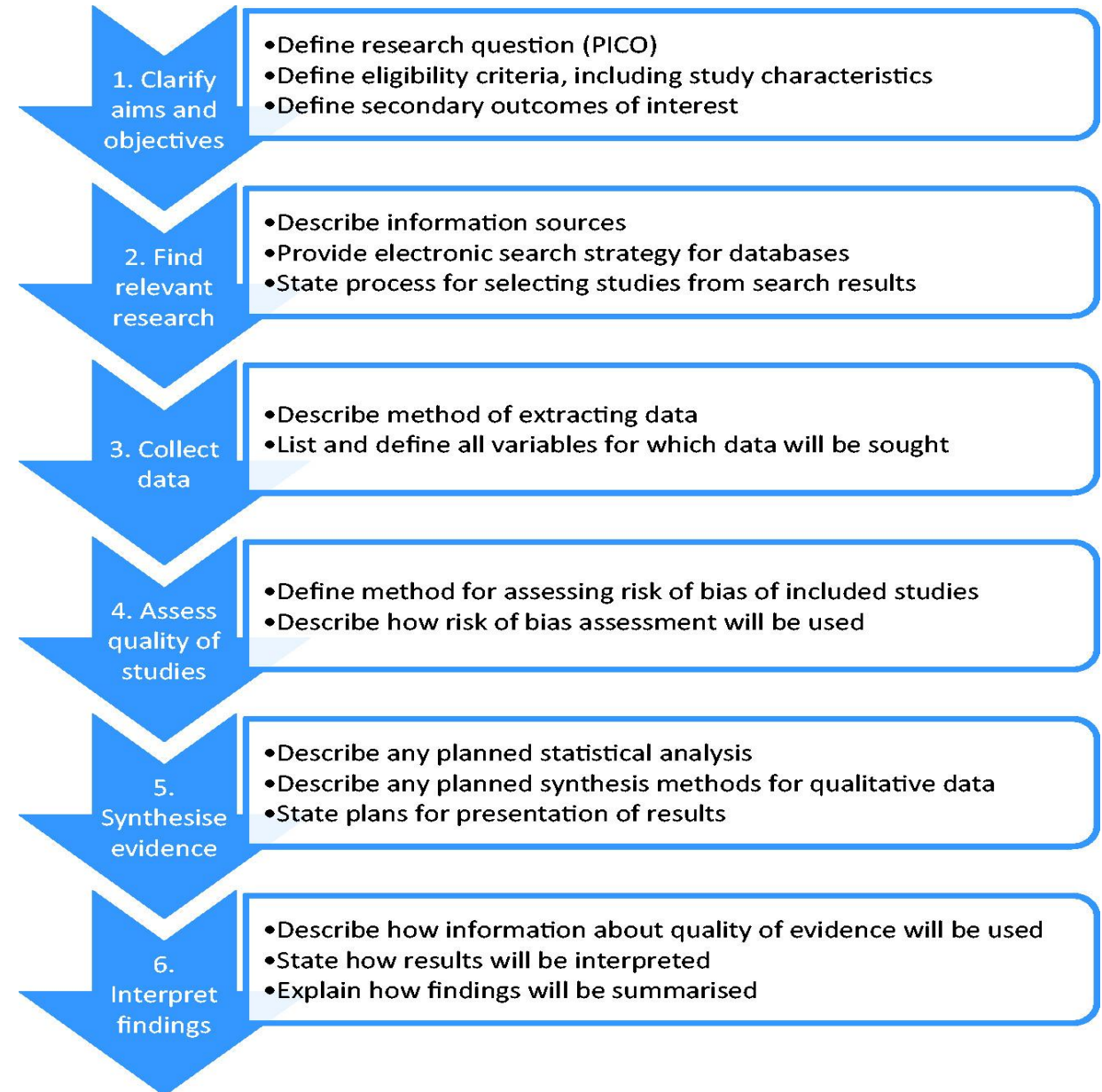
The steps for implementing a systematic review include

- (i) correctly formulating the clinical question to answer (PICO)
- (ii) developing a protocol (inclusion and exclusion criteria)
- (iii) performing a detailed and broad literature search
- (iv) screening the abstracts of the studies identified in the search and subsequently of the selected complete texts (PRISMA)

Why having a Systematic Review protocol

- Protocols are pre-defined plan of all steps to be followed during the review
 - Increase transparent and
 - Reduce risks of bias
 - Guide the reviews decision/action
- PRISMA-P checklist: <https://www.prisma-statement.org/prisma-2020-checklist>
- NIRO-Systematic review checklist <https://niro-sr.netlify.app/>
- PROSPERO
- The JBI journal JBI Evidence Synthesis is one avenue for publishing scoping review 210 protocols (and their subsequent reviews)
- Social sciences review can use sources such as Figshare, Open Science Framework, ResearchGate, Research Square or similar so that it is freely available

Key stages of a review protocols and completion of a review



Defining research questions

- The systematic reviews often aim to find answers to individual questions, or test a single hypothesis,
- Model for establishing your research questions: PICO, PCC
- Example : what are the effects of overparenting on emerging adult development (**developing countries**)

Or Is there gender differences on the effects of overparenting on emerging adult development (developing countries)?

- P:emerging adult P: Emerging adult
- I: overparenting C: Overparenting
- C: non-parenting C: Developing countries
- O: development



Inclusion and exclusion criteria

Two categories of eligibility criteria

- the characteristics of the study regard issues concerning the population
 - Description of the target population
 - What are the effect and the related variables : psychological development, career development etc
 - the study design e.g cross-sectional study, longitudinal study etc, quantitative/qualitative study
- Eligibility criteria referring to the characteristics of the publication
 - Year of publication
 - Language
 - the type e.g peer reviewed publication, grey literature
 - Managing and reporting systematic review processes





Example of inclusion and exclusion criteria

- Inclusion
 - emerging adults, aged between 17 and 29
 - studies included at least one measure of overparenting of emerging adult children and one measure of emerging adult developmental outcomes.
 - Studies should include both gender in their discussion
 - both quantitative and qualitative studies (cross sectional or longitudinal study design)
 - Publications in English, published between 2003 and 2023
- Exclusion:
 - Publications prior to 2003
 - Publication discussing one gender e.g male only
 - Publication discussing behavioural parenting
 - Publication in other languages

Literature searching

- Which databases and search engines will be searched for the literature:
 - Subject specific and multidisciplinary database e.g international or local or regional databases
 - Bibliographic indexes : Scopus, Web of science, Dimensions, *International Bibliography of the Social Sciences* (IBSS)
 - Pre-print archives/repositories: OSF Preprints
- The searching of literature should be based on the PICOC research question(s), inclusion and exclusion criteria.
 - Peer reviewed published materials or grey literature
 - Date scope
 - Context
 - Use the subject heading, key concepts their synonyms to develop a search strategy



Literature searching



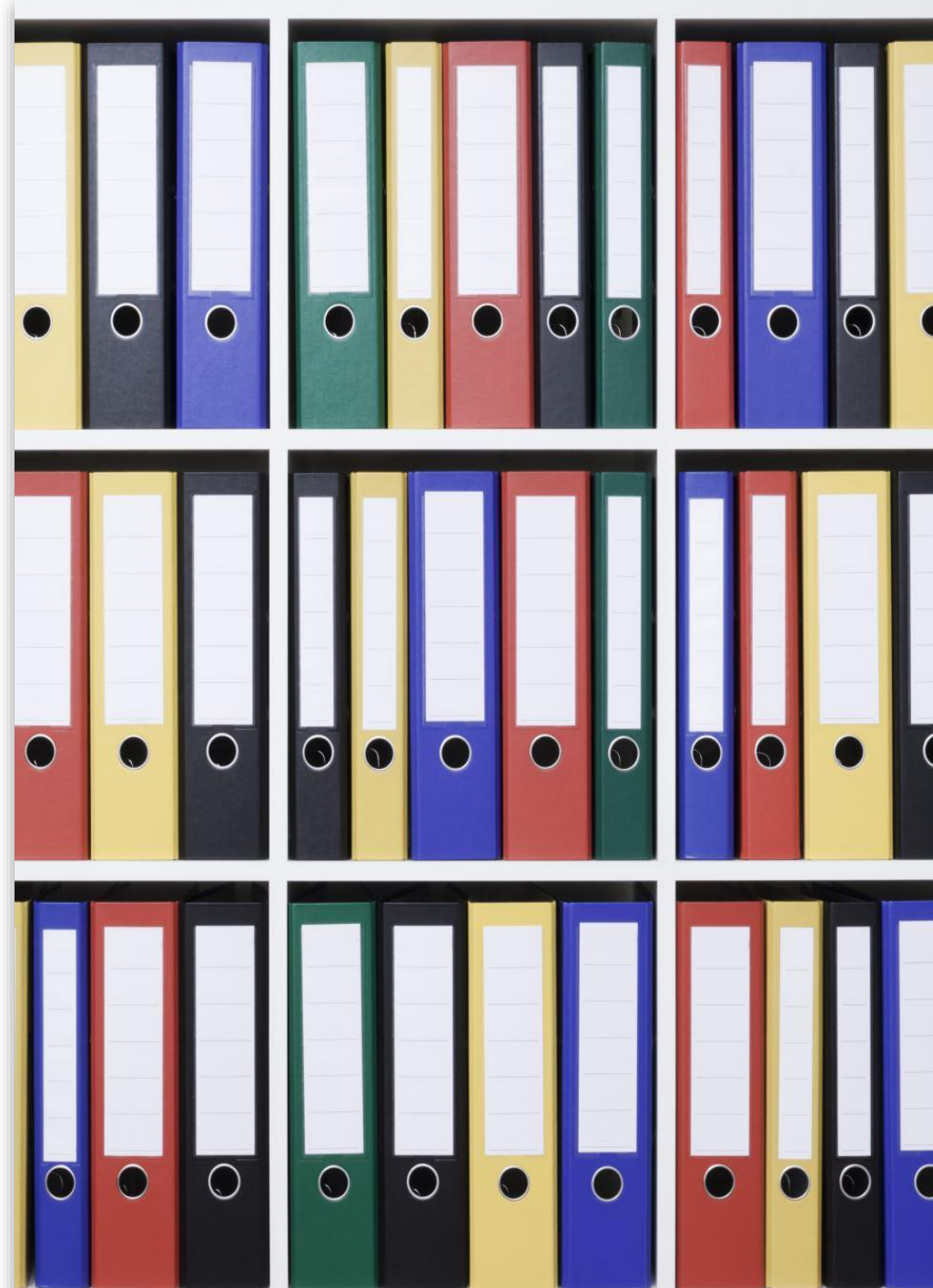
- Constructing a search strategy can be complex and required a thorough discussion between the librarian and the researcher (McGowan et al. 2016).
 - Translation of the research question
 - Identify subject terms and free text searching concepts
 - Boolean/proximity operators
 - define limiters and filters to be used
 - Review
- PRESS Guideline includes recommendations for evaluating electronic search methodologies.
 - formalize the peer-review process for librarians and provide a second set of expert (McGowan et al. 2016).
 - Yale MeSH analyzer used pubmed ID of publications to aggregate the Medical Subject Heading (MeSH) terms <https://mesh.med.yale.edu/>
 - PRESS Forum for search strategy review: <https://pressforum.pbworks.com/w/session/login>
 - PRISMA

Screening literatures

- Step1: abstract /title creening to remove studies that are clearly not related to your topic.
- Step 2: Full text screening
- Informed by inclusion/exclusion criteria
- Usually, two or more independent reviewers screen all studies, resolving areas of disagreement by consensus.

Managing literature during the screening

- Different AI tools exists to support management of systematic review:
 - EPPi Reviewer
 - DistillerSR
 - Rayyan
 - CADIMA
 - covidence to manage review: free under 500 documents
- reference management to manage literature for systematic review
- Mendeley or Zotero or endnote
 - Have import and export features that allows you to import literature from different data bases
 - Folders and sub-folders to allocate literatures according inclusion and exclusion decision made.
 - De-duplicating of literature
 - Tags and notes that allows you to record review action of publications



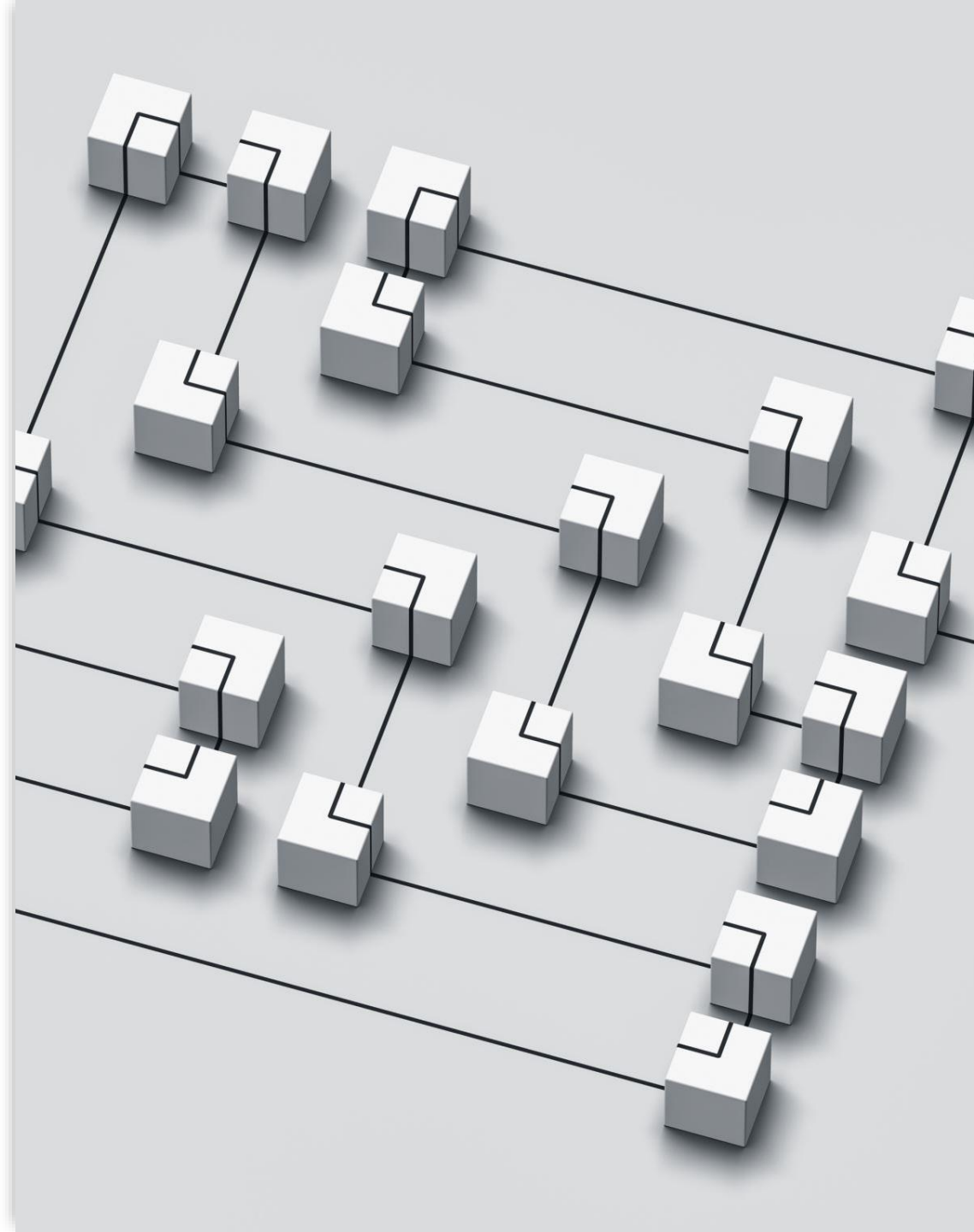
Sorting and organising review data

- Synthesizing and interpreting data
- Organizing by key issues and themes
- Basic descriptive (scoping review)
- Should align with the systematic review research question:
 - Population
 - Country of origin
 - Research method
 - Aims and themes
 - Key findings

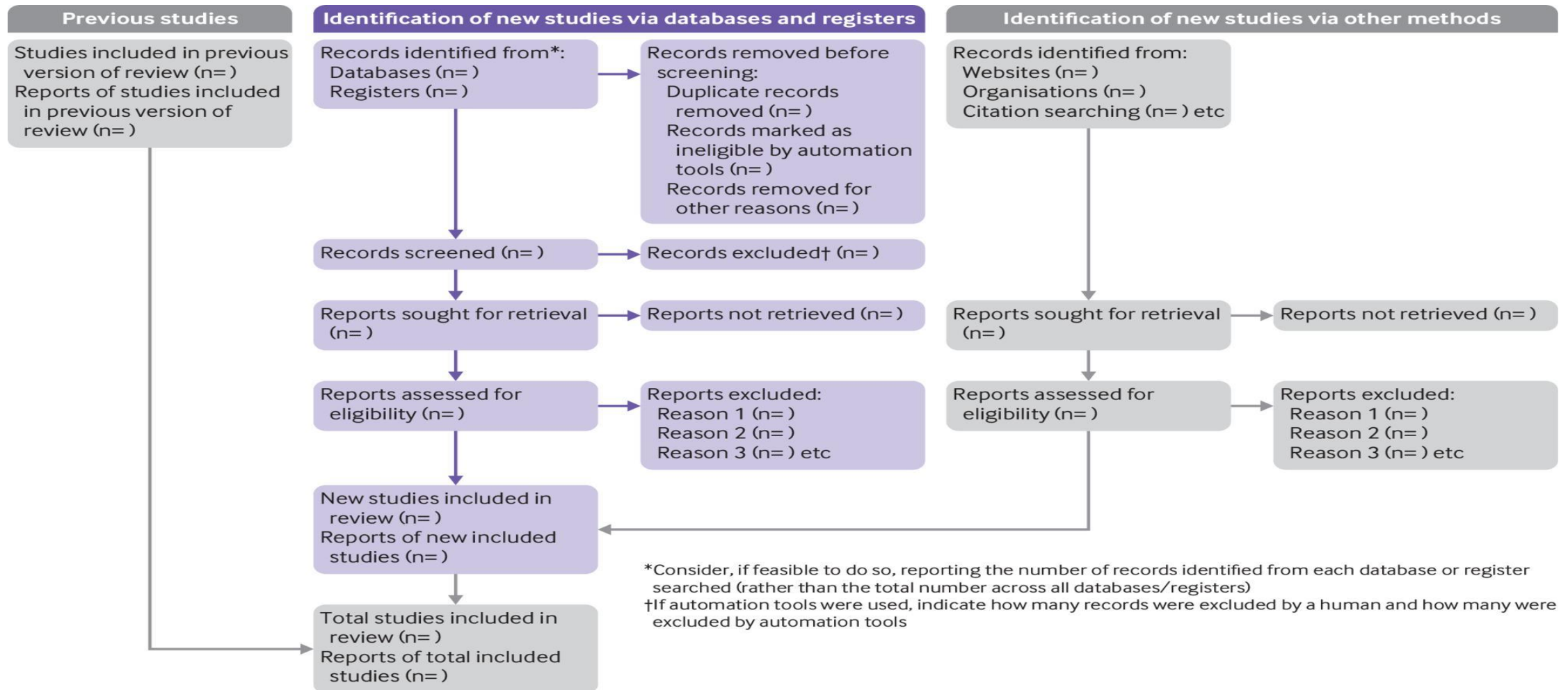


Reporting

- The reliability, validity and reproducibility of systematic reviews is based in consistent and systematic recording of review processes.
- Equator Network: guideline by discipline
- MARS APA guideline for meta analysis
- PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) Flow Diagram is a transparent depiction of the studies discovered and screened at each stage.
https://www.prisma-statement.org/s/PRISMA_2020_flow_diagram_updated_SRs_v2-jbg9.docx
- Use ESHackathon
https://estech.shinyapps.io/prisma_flowdiagram/ w de6c696e/#tab-6099-2
- Journal guidelines



PRISMA Flowchart



Matthew J Page et al. BMJ 2021;372:bmj.n71



How can Librarians help

- Advice on review type
- Guide establishing systematic review question
- Guide on developing inclusion and exclusion criteria
- Establishing search concepts and search syntax
- Support in systematic review references management
- Guide to resources available for conducting systematic review
- Training and promote awareness on different reviews
- The Equator Network have developed the Librarian action plan for supporting systematic review

Key challenges in conducting systematic review in a limited resources



Limited access to published resources



Difficulty in getting grey literature



Language barrier



Limited skills and capacity for conducting systematic review



Confusion of systematic review with narrative literature review and systematic searching of literatures

References

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- PRISMA 2020 Checklist: <https://www.prisma-statement.org/prisma-2020-checklist>
- Equator network protocol guideline <https://www.equator-network.org/librarians/>
- Press guideline for evaluating search methodology: PRESS Forum for search strategy review: <https://pressforum.pbworks.com/w/session/login>
- Eppi Reviewer <https://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2914>
- Equator Network Librarian action plan: <https://www.equator-network.org/wp-content/uploads/2013/06/Librarian-Action-Plan-Simple-Ideas.pdf> and <https://www.equator-network.org/wp-content/uploads/2013/06/Librarian-Targeted-Actions.pdf>



THANK YOU

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