

COFFEE



LECTURE

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Tips for successfully leading your team in a systemic review

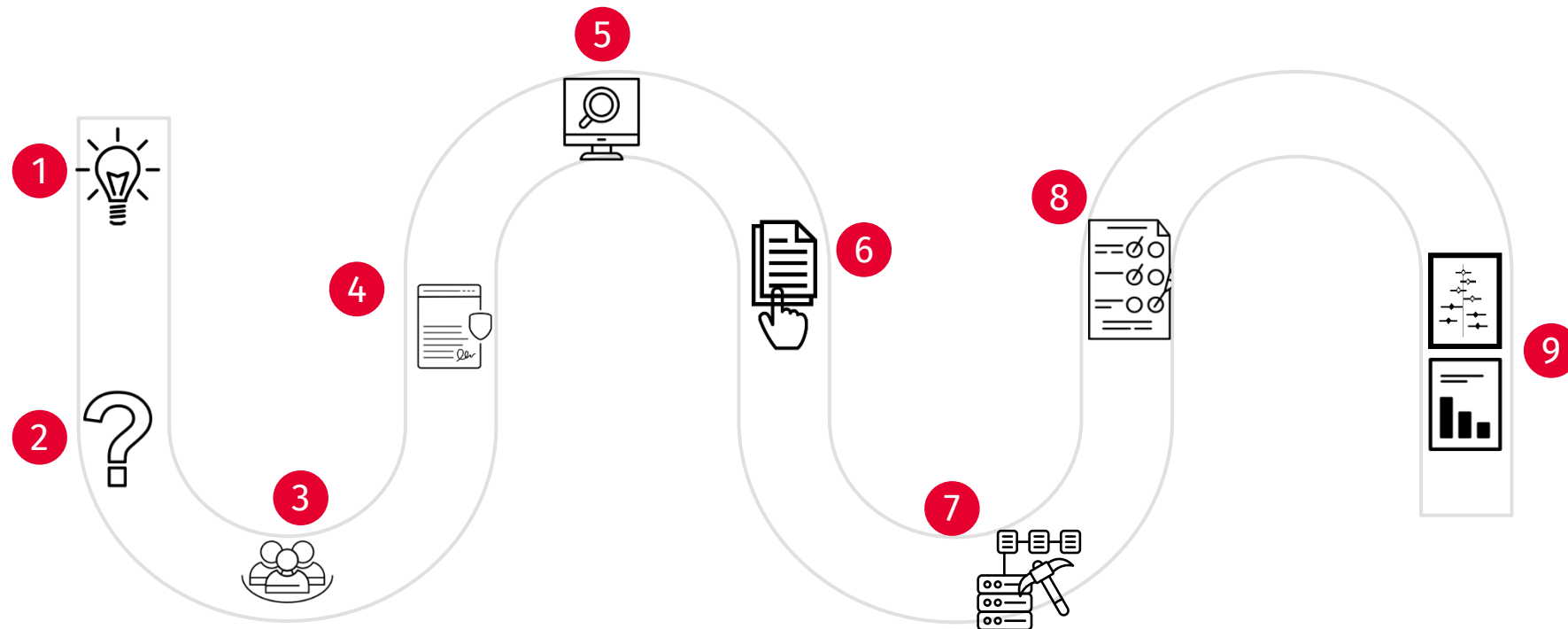


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Research support team
Medical Library

25.04.2023
13:00, Zoom

Systematic reviews

A Systematic Review **identifies and synthesizes all the available evidence** from carefully designed healthcare studies pertaining to a **specific research question.**



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Successfully leading your team in a systemic review

Example of team structure in a **Systematic** review:

Subject experts (beginners)

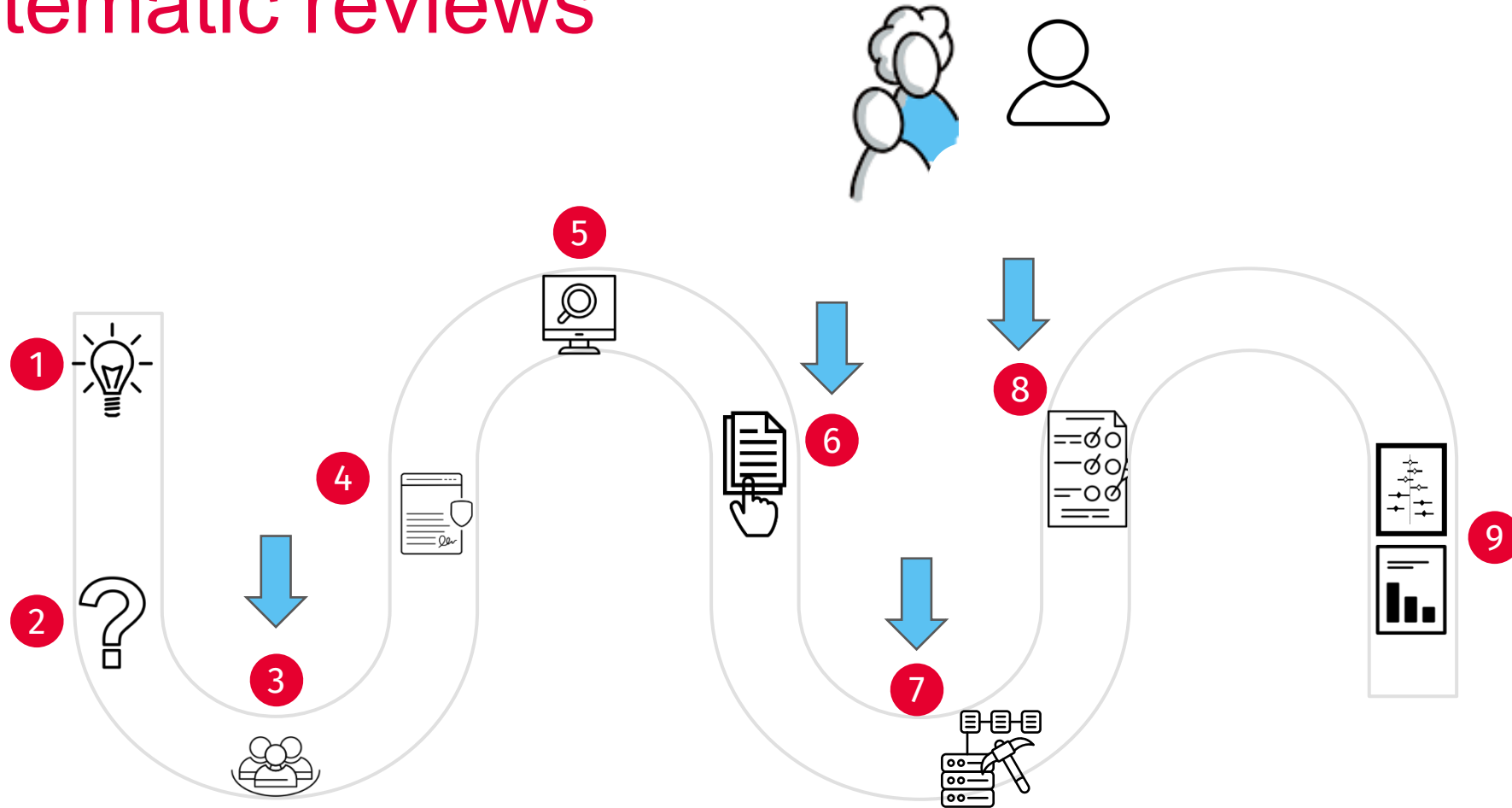
Librarian

Statistician

Project manager



Systematic reviews



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Successfully leading your team in a systemic review

Project management.

The expected **time** of publication is critical for planning.

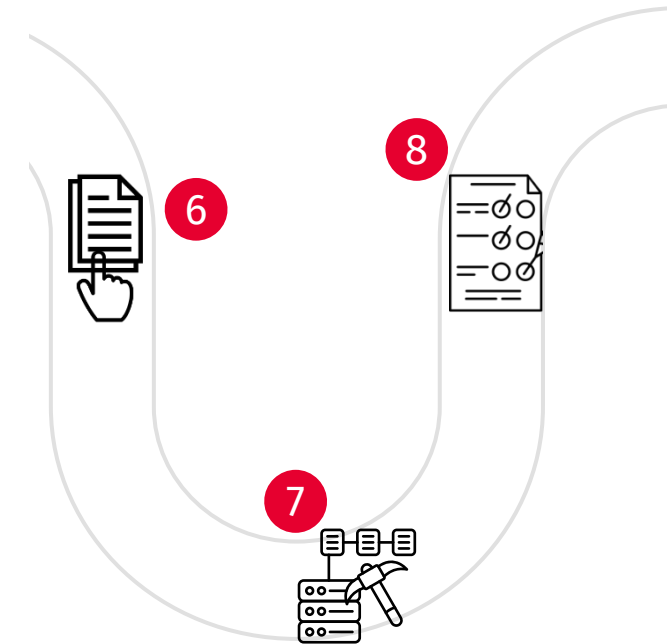
It is considered that the implementation of the search strategy should be updated after 6 - 12 months.

Keep the team **motivated** and meeting **deadlines**

Systematic reviews

Possible pitfalls

1. Excluding useful articles
2. Lack of accountability (reasons for inclusion/exclusion, numbers)
3. Extracting and registering wrong information
4. Poor risk of bias assessment
5. Other?



1. How to avoid the exclusion of useful articles?

Train your team

Choose some clear examples of abstracts to include and exclude.

Screening

Title abstract – sensitivity

Full text – specificity



Create a **short protocol** with the aim, inclusion and exclusion criteria and a brief **manual** user of the **software**.

1. How to avoid the exclusion of useful articles?

Short protocol

Short protocol

Scoping review of telehealth for self-care in women's sexual and reproductive health

Objective: The objective of this scoping review is to understand the extent and type of evidence in relation to telehealth in the field of self-care for sexual and reproductive health in women.

Eligibility criteria

Inclusion criteria:

1. Studies in women of all ages, including transgender women.
2. Studies that include telehealth and self-care concepts in the field of sexual and reproductive health. Self-care practices include those that women can take on their own toward the goals of self-management, self-testing, and self-awareness.
3. Qualitative or quantitative, either observational or experimental.
4. Articles in English, Spanish, Portuguese, or French.
5. Reports of primary studies and reviews (e.g. meta-analysis, systematic or narrative)

Exclusion criteria:

1. Articles with no disaggregated data on women
2. Commentaries, letters to editor, congress abstracts, and opinion papers.
3. Articles that did not clearly stated in the aim the intention of study/ integrate information on telehealth and self-care in reproductive sexual health.

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1. How to avoid the exclusion of useful articles?

Rayyan

PICO portal

Many more options

The screenshot shows the Rayyan PICO portal interface. At the top, there is a search bar with the text "Acupuncture for migraine relief" and a "Search studies" button. Below the search bar, the page title is "Title and abstract screening". There are four tabs: "Screen references 661", "Resolve conflicts 0", "Awaiting other reviewer 0", and "Irrelevant references 0". The "Screen references" tab is selected. Below the tabs, there are several buttons: "All", "Filter", "Tags", "Add criteria", "Add highlights", "Hide abstracts", "Display: 25", and "Most relevant". A tooltip is displayed over the "Most relevant" button, stating: "Most relevant sort is now using machine learning to order the studies based on your include and exclude behaviour. Learn more about most relevant sort". Below the buttons, there is a list of search results. The first result is "#82 - Liu 2022" with the title "[Mechanisms of liver-soothing and mind-regulating acupuncture mediating opioid receptor participated in the treatment of migraine]". The authors are "Liu J; Wang MM; Yang DH; Cui XX" and the journal is "Zhen Ci Yan Jiu Jun 2022;47(6):510-6". The DOI is "10.13702/j.1000-0607.20210691" and the Ref ID is "35764518". There are three buttons next to the article: "No", "Maybe", and "Yes". The "Maybe" button is highlighted with a mouse cursor. Below the article, there is an "Abstract" button and the start of the abstract text: "OBJECTIVE: To observe the effect of 'Shugan Tiaoshen'(liver-soothing and mind-regulating) acupuncture on behavior reactions, opioid receptor expressions in the anterior cingulate cortex tissue and inflammatory factors in the serum in migraine rats, in order to explore its mechanism underlying improvement of migraine. METHODS: In the first part of this study, forty male Wistar rats were randomized into control, model, routine acupuncture and 'Shugan Tiaoshen' acupuncture groups (n=10/group), and in the second part, other 40 more male Wistar rats were randomized into low, medium

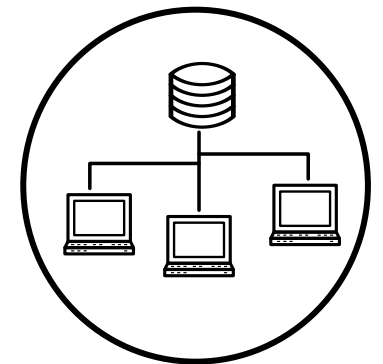
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2. How to be accountable during the systematic review process?

Centralize

Team members identifying **relevant articles** through other sources should create a list of articles in a format (BibTeX, EndNote, etc.)

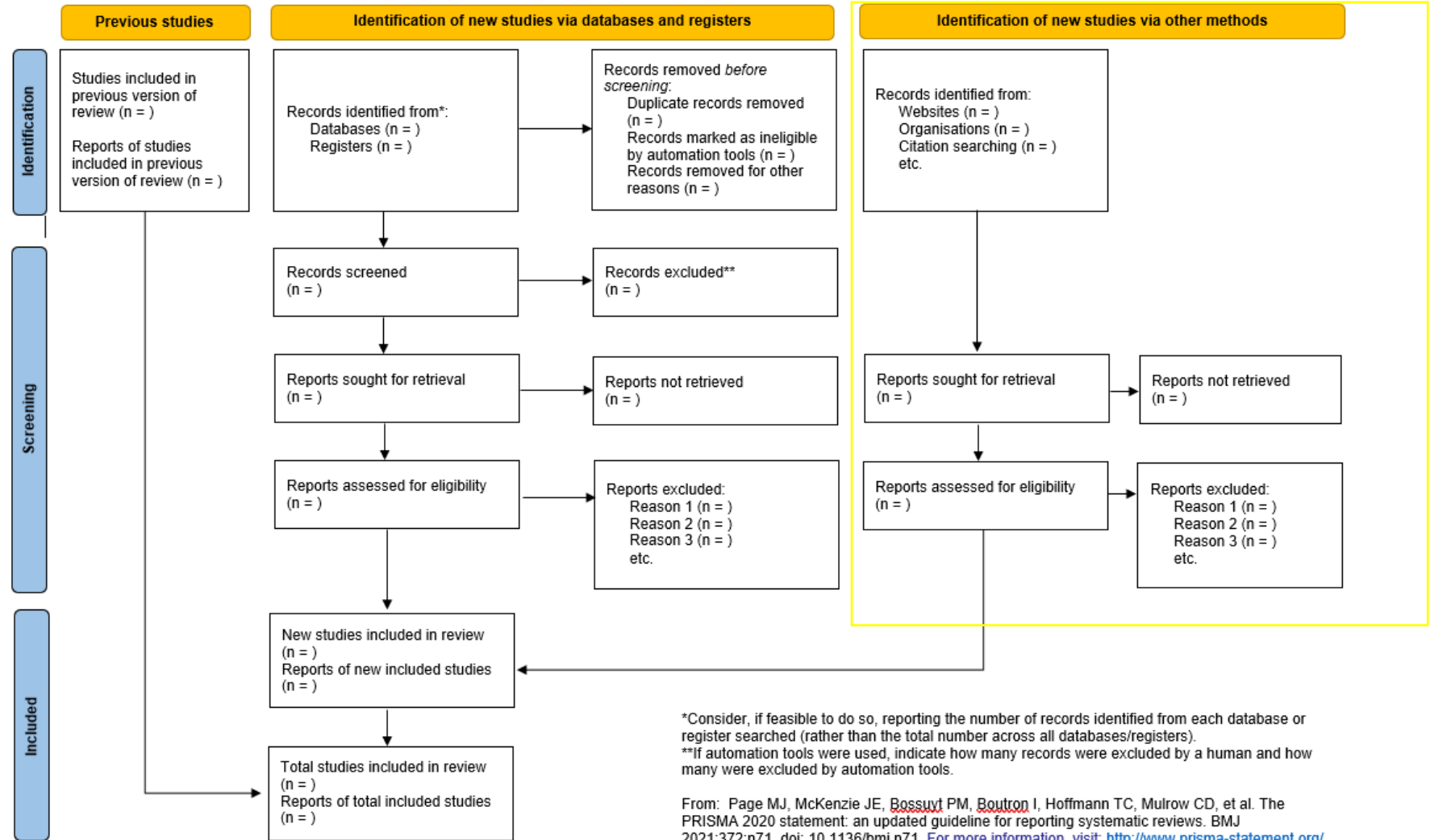
Facilitates comparison with the articles already screened.



Check the requirements of the **target journal** and **PRISMA** flowchart.

2. How to be accountable during the systematic review process?

PRISMA 2020 flow diagram for updated systematic reviews which included searches of databases, registers and other sources



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3. How to capture the right information?

Train your team

Create a **standardized** data extraction format (REDcap, Google forms or any of the available software)

Highlight the information extracted in the PDF



Check at least the data extraction of the first **three articles** assigned to your reviewers, look for mistakes in the units, association or impact measures (register original units – uniform transformation)

3. How to capture right information?

Author	Year	Country	Sample Size	Cases	Sex	women/total	Age measure	Age value	Variability measure	Age variability
Corella D et al	2014	Spain	7187	268	3	4124/7187	Mean	67	SD	6.2
Chen Z et al.	2015	China	334	159	3	159/334	Mean	65.6	SD	8.4
Shin C et al.	2015	Korea	8465	121	3	4451/ 8465	Median	52.3	IQR	9
Juan J et al.,	2017	China	2158	1007	3	901/2158	Median	57.65	Range	8.8
Zhao M et al.	2017	China	20424	621	3	12072/20424	Mean	60	SD	7.5
Rutten-Jacobs L et al.	2018	UK	306473	2613	3	169819/306473	Mean	56.7	SD	7.9
Fumeron F et al,	1995	France	1332	608	1	0/1332	Mean	53.1	SD	8.5

The screenshot shows the Covidence web interface. The browser address bar indicates the URL: https://www.covidence.org/reviews/29770/review_studies/90086696/data_extractions. The study title is "Askelson 2017". The main content area displays the study title "Exploring the Parents' Attitudes and Perceptions About School Breakfast to Understand Why Participation Is Low in a Rural Midwestern State" by Natoshia M. Askelson, MPH, PhD¹; Elizabeth H. Golembiewski, PhD¹; Patti J. Delger, RD, LD²; Carrie A. Scriver, PhD¹. The abstract is visible, starting with "Objective: To explore parental attitudes and perceptions about the...". The right sidebar shows the "Methods" section with a dropdown menu for "Design" and radio buttons for "Parallel group", "Crossover", and "Not applicable".

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4. How to perform a fair risk of bias assessment?

Depend on the type of articles included on the review

Several options of quality/risk of bias assessment tools

Selection bias

Information bias

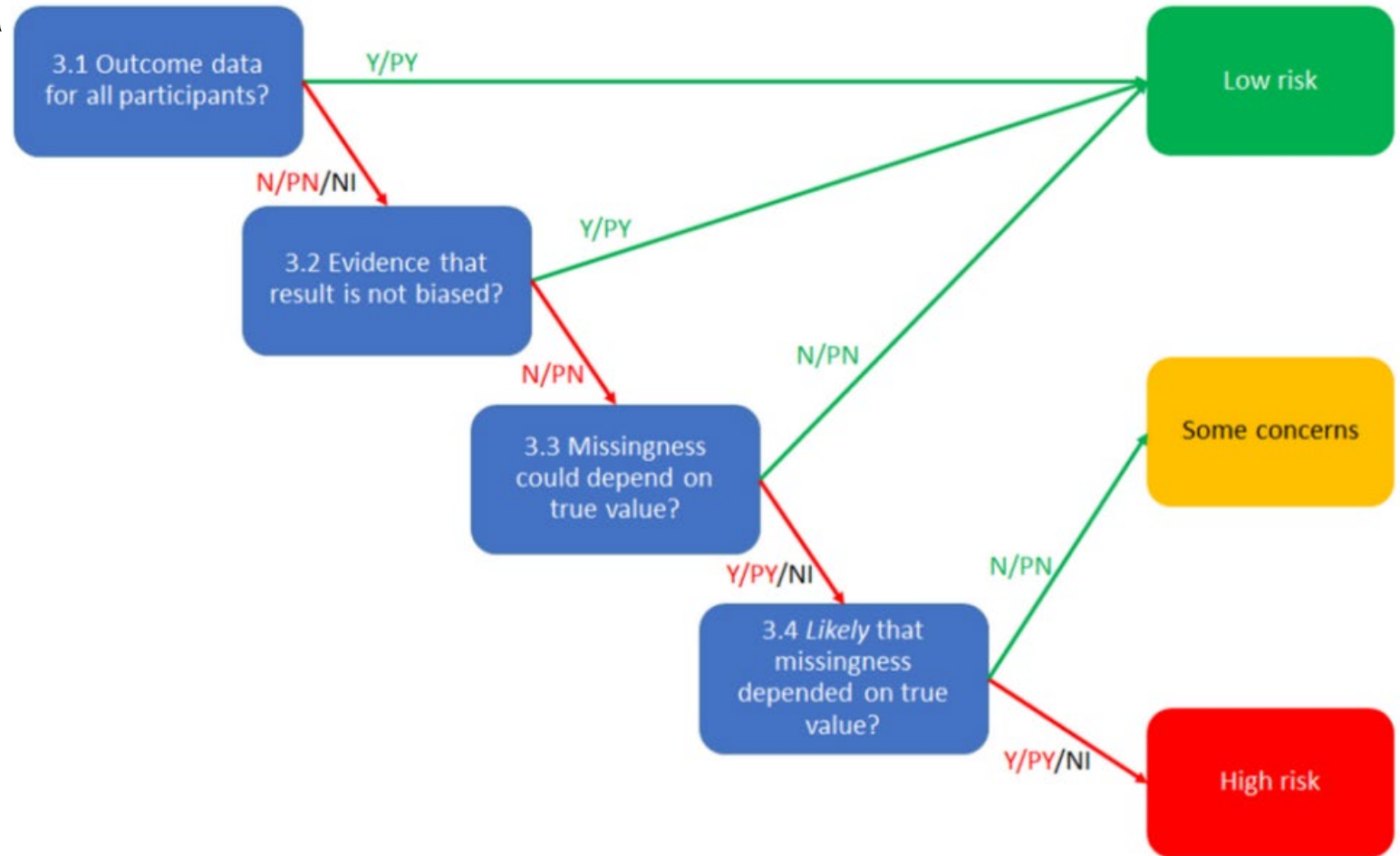
Confounding

Train your team

u^b 4. How to perform a fair risk of bias assessment?

Homogeneous criteria

Risk-of-bias tool
for randomized
trials (RoB 2)



Algorithm for suggested judgement of risk of bias due to missing outcome data

References

Muka, T., Glisic, M., Milic, J., Verhoog, S., Bohlius, J., Bramer, W., ... & Franco, O. H. (2020). A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta-analysis in medical research. *European journal of epidemiology*, 35(1), 49-60.

Higgins, J. P., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (Eds.). (2019). *Cochrane handbook for systematic reviews of interventions*. John Wiley & Sons.

Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., & Koffel, J. B. (2021). PRISMA-S: an extension to the PRISMA statement for reporting literature searches in systematic reviews. *Systematic reviews*, 10(1), 1-19.

Thanks



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Now there is time for...

Questions & Discussion

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