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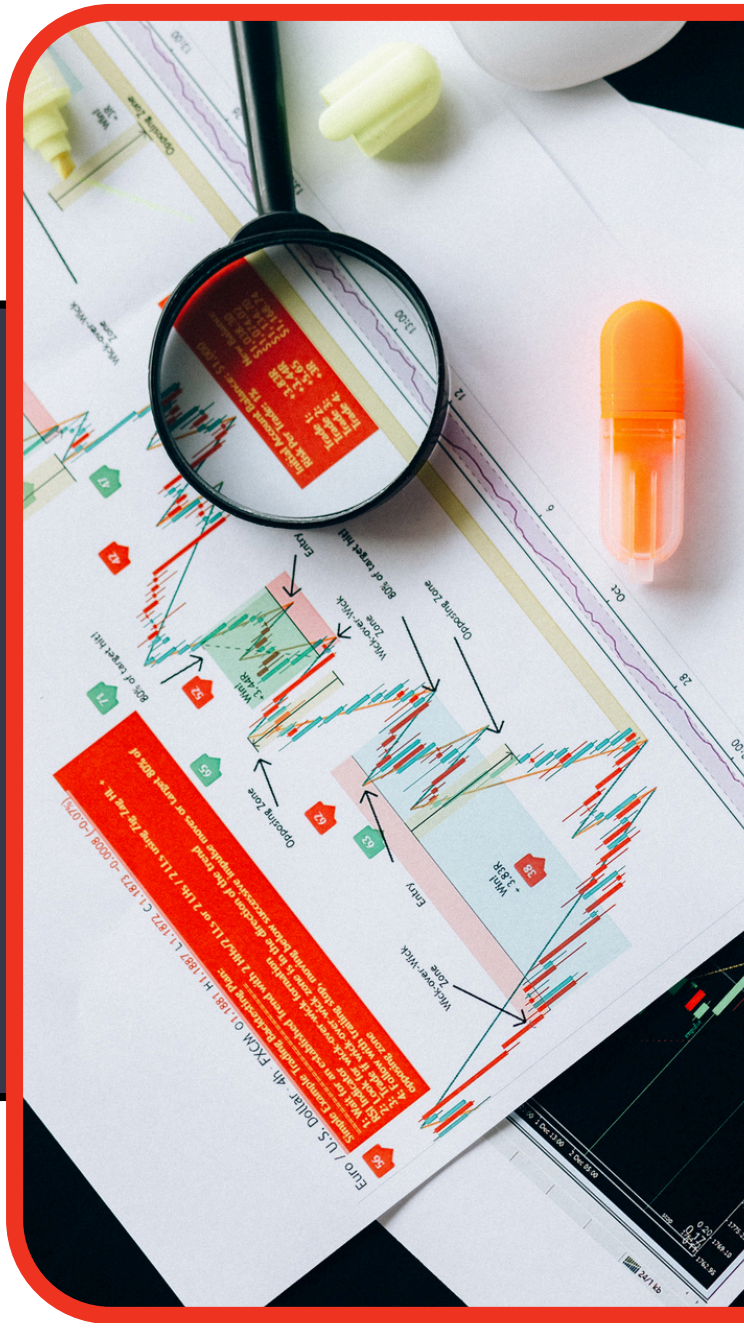
Author First, Quality First

PRISMA Checklist

Reporting Systematic Reviews and Meta-Analyses



The PRISMA checklist outlines 27 key items to support clear, thorough, and transparent reporting of systematic reviews and meta-analyses. Following this checklist helps researchers report their systematic reviews with precision, transparency, and consistency—supporting reproducibility and meaningful application of findings.

PRISMA Checklist

Title and Abstract

- [ ] Identify the report as a systematic review, meta-analysis, or both directly in the title.

Absract

- [ ] Provide a structured summary that covers the study objectives, eligibility criteria, data sources, methods, main findings, limitations, and conclusions.

Introduction

- [ ] Describe the rationale behind conducting the review or meta-analysis and its significance.
- [ ] Clearly state the review's objectives or the research questions it addresses.

Methods

- [ ] Define the inclusion and exclusion criteria, including participant types, interventions, comparisons, outcomes, and study designs.
- [ ] List all information sources (e.g., databases, registries) and include the date of the last search.
- [ ] Share the complete search strategy for each database, including keywords and filters used.
- [ ] Explain the process of study selection—such as screening titles/abstracts and reviewing full texts—and who conducted it.
- [ ] Describe how data were extracted from the selected studies, who performed the extraction, any tools or automation used, and how the data were verified.

- List all collected variables and outcomes, including participant and intervention details and funding sources. Mention whether all relevant data were reported and explain how results were selected if applicable. Also, clarify any assumptions made for missing or unclear data.

- Outline how the risk of bias in individual studies was assessed, including tools used, reviewer roles (e.g., working independently), and any automation involved.

- State which effect measures were used to synthesize or report results (e.g., risk ratios, mean differences).

- Data Synthesis and Analysis

  - Explain how studies were selected for synthesis and how interventions were grouped.
  - Describe data preparation steps, including handling of missing or converted data.
  - Detail how results were visually or tabularly presented.
  - Outline how study results were combined, including statistical models, heterogeneity testing, and software used.
  - Include approaches for examining variation in study outcomes (e.g., subgroup analyses, meta-regression).
  - Mention any sensitivity analyses performed to assess result robustness.

- Describe methods for evaluating bias due to missing results and possible reporting biases.

- Explain how the certainty or confidence in the evidence for each outcome was assessed.

Results

- Provide a summary of the search and selection process, ideally with a flow diagram, and list excluded studies that initially appeared eligible, along with reasons for exclusion.

- Summarize the key characteristics of the included studies (e.g., sample size, interventions).

- Present findings from the risk of bias assessments for all included studies.

- [x] Report summary statistics and effect estimates with precision (e.g., confidence intervals) for each outcome and study group, preferably using tables or plots.

- [x] Synthesis Results

  - Summarize characteristics and bias assessments of studies in each synthesis.
  - Present results from statistical syntheses, including estimates, confidence intervals, and heterogeneity measures.
  - Report findings on factors that explain heterogeneity.
  - Summarize sensitivity analyses of synthesized results.

- [x] Report any risk of bias due to missing or selectively reported results.

- [x] Present evaluations of the certainty or confidence in the evidence for each assessed outcome.

Discussion

- [x] Interpret the findings in the context of existing literature. Discuss limitations of the included studies and the review process, and consider implications for practice, policy, and future research.

Other Information

- [x] Provide registration details (e.g., registry name and number), protocol access (if available), and note any protocol amendments.

- [x] Disclose all sources of financial or non-financial support and the role of funders or sponsors.

- [x] Declare any conflicts of interest.

- [x] Indicate which materials (e.g., extracted data, code, data templates) are publicly accessible and where to find them.