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Developing and registering scoping review protocols in health sciences: A meta-research study of recent trends (2024-2025)

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ADMINISTRATIVE INFORMATION

Support - INPLASY Inc. will provide funding to publish the results of this meta-research study in an open-access journal (free and unlimited access).

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - João V. d S. Canellas founded the INPLASY registry and owns shares in INPLASY, Inc. (a US company) and INPLASY Ltd. (a Brazilian company). The remaining authors declare that the research will be conducted without commercial or financial relationships that could be construed as a potential conflict of interest.

INPLASY registration number: INPLASY202580057

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 August 2025 and was last updated on 19 August 2025.

INTRODUCTION

Study aim The objective of this study is to identify best practices for designing and registering scoping review protocols, thereby developing an academic template to guide researchers in developing their scoping review protocols. Furthermore, the study seeks to identify what documents are being reported in the scientific literature to provide methodological and reporting guidance in protocol elaboration to understand the current landscape of scoping review protocols. Additionally, it will provide valuable insights for future development of scoping review protocols. Therefore, this article will describe how to develop and where to register a detailed scoping review protocol, based on a large sample of the articles published in the most relevant journals of clinical medicine in the last

year. To this end, the following focused questions will be addressed:

What percentage of published peer-reviewed scoping reviews were developed from a registered protocol in the last year in the most relevant journals of clinical medicine?

What documents were used to develop the scoping review protocol?

What were the most frequent headings and subheadings added in the protocol?

Where were the scoping review protocols registered? Additionally, is there a published peer-reviewed protocol referred to in the final paper? If yes, it was published in what journal?

Background A well-prepared scoping review protocol is fundamental to the implementation of a systematic, transparent, and credible scoping review. The protocol aligns the research team,

facilitates external scrutiny, and ultimately enhances the quality and applicability of the findings. Tricco and colleagues found that few scoping reviews reported using an a priori protocol.

Rationale Scoping reviews have gained increasing prominence in health sciences, education, social sciences, and policy research due to their ability to map the breadth and depth of evidence on a given topic, identify key concepts, gaps, and types of available evidence, and inform future research. Despite the growing popularity and utility of scoping reviews, the methodological rigor with which they are conducted varies significantly. One critical aspect that contributes to this rigor is the development and publication of a scoping review protocol prior to undertaking the review itself.

A scoping review protocol serves as a detailed plan that outlines the objectives, eligibility criteria, search strategy, data charting methods, and analysis plan. This pre-defined methodological framework is important to ensure transparency, reproducibility, and accountability throughout the review process. While guidelines such as the Joanna Briggs Institute (JBI) Manual and the PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews) advocate for the use of protocols, the extent to which this guidance is followed remains inconsistent across different articles. Unlike systematic reviews, scoping review protocols are not eligible for registration in PROSPERO. As a result, authors conducting scoping reviews are often required to develop their own protocol templates, guided by methodological frameworks such as those provided by the Joanna Briggs Institute (JBI), and reporting standards like PRISMA-ScR. While these resources offer valuable guidance, the absence of a centralized registration platform and widely adopted templates can lead to variability in protocol structure, content, and comprehensiveness.

METHODS

Search strategy The search strategy is attached as a supplementary material.

Eligibility criteria We will include a large sample of scoping reviews published in the last year in the most relevant journals of health science indexed in PubMed. The Journal Citation Reports (JCR), published by Clarivate, organizes journals into 254 subject categories. These categories encompass a wide range of disciplines, including the health sciences. Each journal in the JCR is assigned to one or more categories based on its content and

scope. These categories help researchers identify journals that are most relevant to their field of study. To select the qualified journals, we will use the list of journals from JCR classification. Due to the large number of categories, only the following 23 categories will be included in our research: PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH; PHARMACOLOGY & PHARMACY; MEDICINE, GENERAL & INTERNAL; ONCOLOGY; NEUROSCIENCES; SURGERY; PSYCHIATRY; CLINICAL NEUROLOGY; NURSING; ENDOCRINOLOGY & METABOLISM; PEDIATRICS; PSYCHOLOGY, CLINICAL; DENTISTRY, ORAL SURGERY & MEDICINE; SPORT SCIENCES; NUTRITION & DIETETICS; OPHTHALMOLOGY; DERMATOLOGY; RHEUMATOLOGY; PATHOLOGY; REHABILITATION; HEALTH CARE SCIENCES & SERVICES; UROLOGY & NEPHROLOGY; PSYCHOLOGY, CLINICAL. From each category, we will select the journals classified as Q1. The Q1 classification in JCR refers to journals in the top 25% of their subject category based on impact metrics, primarily the Journal Impact Factor (JIF). For health science journals, this ranking indicates that a journal is among the most influential and frequently cited in its field. Additionally, Journals not indexed to PubMed will be excluded.

Data extraction The extraction of information from the selected full-text articles will be carried out by a group of authors. We will collect information from the articles and their referenced protocols. The manuscript extraction form will contain the following information: Title of the article; Journal where the article was published; Day, month and year of publication described in the article or indexed by endnote automatically; Country of the corresponding author; Name of the register where the scoping review was registered; Registration ID; Published peer-reviewed version - Is there a published peer-reviewed version of the protocol? (Yes or No) If yes, what is the journal?

We will access the protocols referred in the manuscripts to collect the following information: Protocol status (Is the status updated?); Registration date (We will use this information to calculate the time from registration to publication). We will categorize all data and tabulate them descriptively to analyze the sample. We will access the protocols referred to in the articles to explore the most commonly included sections and topics. Additionally, we will collect from the protocol methodology what documents are used to design the protocol.

Outcome definitions We will describe how protocols for scoping reviews can be developed based on the sections and topics included in the

analyzed sample. Additionally, we will consider the recommendations for protocol elaborations referred in the analyzed protocols to describe how to develop a detailed scoping review protocol.

Strategy of data synthesis / Statistical analysis

A narrative synthesis will be used to summarize the results. The selection process will be presented using a PRISMA flowchart. The characteristics of the included scoping reviews will be reported through descriptive statistics using tables and/or figures.

Country(ies) involved Brazil and United States.

Other relevant information The funding has no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Keywords Scoping review; protocols; health science; elaboration; registration.

Dissemination plans The findings of this systematic review will be disseminated through different approaches to reach a broad audience of researchers, clinicians, and stakeholders. It will be submitted for publication in a high-impact, international peer-reviewed journal. Additionally, the results will be presented at relevant national and international scientific conferences to facilitate discussion and collaboration within the scientific community.

Contributions of each author

The team has not yet defined the contribution of each author. We expect to include new authors in the data extraction phase. Students from the Master of Science and Extension Project of Oral and Maxillofacial Surgery at the University of Brasilia will be included. The supervision will be performed by the following authors:

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