

Scoping protocol review: PRISMA-ScR guide refinement

Protocolo de revisão de escopo: aperfeiçoamento do guia PRISMA-ScR

Protocolo de revisión del alcance: mejora de la guía PRISMA-ScR

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Abstract

Objective: To clarify information about the PRISMA-ScR checklist and provide detailed guidance on items for improvement of the scoping review protocol. **Methods:** Literature review, with analysis of studies related to the topic, via the PubMed portal and the Joanna Briggs Institute website, in August 2022. A synthesis of the findings and recommendations for refinement of the method description were performed. **Results:** The analyzed material enabled the elaboration of recommendations for improvement of the protocol in seven items of PRISMA-ScR: Title, Summary, Objectives, Research, Selection of sources of evidence, Summary of results, and Expected results. **Conclusion:** By highlighting and clarifying the phases of the construction of the scoping review protocol, based on PRISMA ScR, we obtained the construction of a transparent and reproducible model.

Descriptors: Review; Methods; Peer review, research.

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Whats is already known on this?

The PRISMA-ScR checklist is a widely used guide for the development of the description, both in the construction phase of the review protocol and in the presentation of the results.

What this study adds?

Highlights and clarifies the stages for improving the PRISMA-ScR guide for preparing the scoping review protocol.

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Resumo

Objetivo: Clarificar informações sobre o checklist PRISMA-ScR e orientar, de forma detalhada, os itens para aperfeiçoamento do protocolo de revisão de escopo. **Métodos:** Revisão bibliográfica da literatura, com análise de estudos relacionados ao tema, via portal PubMed e site do Instituto Joanna Briggs, em agosto de 2022. Realizou-se a síntese dos achados e recomendações para refinamento da descrição do método. **Resultados:** O material analisado possibilitou a elaboração de recomendações para aprimoramento do protocolo em sete itens do PRISMA-ScR: Título, Resumo, Objetivos, Pesquisa, Seleção das fontes de evidência, Síntese dos resultados e Resultados esperados. **Conclusão:** Ao destacar e clarificar as fases da construção do protocolo da revisão de escopo, baseado no PRISMA ScR, obteve-se a construção de um modelo transparente e reproduzível.

Descritores: Revisão; Métodos; Revisão da pesquisa por pares.

Resumen

Objetivo: Aclarar información sobre la lista de verificación PRISMA-ScR y guiar, en detalle, los elementos para mejorar el protocolo de revisión del alcance. **Métodos:** Revisión bibliográfica de la literatura, con análisis de estudios relacionados con el tema, vía el portal PubMed y el sitio web del JBI, en agosto de 2022. Se realizó una síntesis de los hallazgos y recomendaciones para afinar la descripción del método. **Resultados:** El material analizado permitió la elaboración de recomendaciones para la mejora del protocolo en siete ítems del PRISMA-ScR: Título, Resumen, Objetivos, Investigación, Selección de fuentes de evidencia, Síntesis de resultados y Resultados esperados. **Conclusión:** Al resaltar y aclarar las fases de construcción del protocolo de revisión del alcance, basado en el PRISMA ScR, se construyó un modelo transparente y reproducible.

Descriptores: Revisión; Métodos; Revisión de la investigación por pares.

INTRODUCTION

In recent years, health care has been worked on in different aspects and consequently has gained notoriety in world science. Its development and application includes the analysis of several sources of evidence to generate a plausible practice within the broader health context, covering different guiding axes that enable its use and appropriation by health professionals.

In the world literature, several models are presented to explain how evidence summary aids in decision-making. Among them, the model proposed by the Joanna Briggs Institute (JBI) is based on the premise of Evidence-Based Health Care (EBHC) and currently represents an advance in science by considering the best available evidence, the context of the application, patient preference, and professional choice. In this way, clinical decision-making considers the feasibility, appropriateness, meaningfulness, and effectiveness of health care practices. ⁽¹⁾

To identify the best available evidence, systematic reviews are considered. The JBI Handbook for Evidence Synthesis recommends 11 types of reviews with different approaches, with the scoping review being the most widespread because of its ability to obtain an overview of evidence and gaps in various fields of research. ⁽¹⁾

The scoping review emerged in the study by Arksey & O'Malley (2005)⁽²⁾ refined by Levac et al. (2010)⁽³⁾. In 2014, an international group of experts developed guidelines, in checklist format, for conducting and reporting scoping reviews, called PRISMA-ScR (PRISMA extension for Scoping Reviews), updated over the years. ⁽⁴⁻⁹⁾

Despite the advances in the method, studies show limitations in the understanding of its development related mainly to the review protocol ⁽¹⁰⁻¹³⁾, which began to be indicated after the publication of PRISMA-ScR. The study by Barbosa Filho and Tricco (2019)⁽¹⁰⁾ presented 45 reviews published in the health literature in Brazil, but they did not provide a detailed description of PRISMA-ScR to clarify methodological decisions during the execution of the study construction. The implementation of the protocol aims to clarify the transparency of the construction process to minimize research biases and encourage its use, but there is no requirement to report in scoping review studies.

However, there is growing recognition of its importance and use in scientific literature. Therefore, elucidating issues that deal with the construction of the protocol and its use enables increased reliability and transparency in scientific research. Thus, this study aims to clarify information about the PRISMA-ScR checklist and to provide detailed guidance on the items for the development of the scoping review protocol.

METHODS

This is a literature review on the guidelines used to develop the scoping review protocol in health research. The following sources of evidence were adopted as eligibility criteria: 1) Present items for the development of the scoping review protocol, and 2) Discuss clarification of the PRISMA-ScR checklist.

The PRISMA-ScR checklist is a widely used guide for the development of the description, both in the construction phase of the review protocol and in the presentation of the results. In this sense, the present manuscript will contribute to the items related to protocol construction from items 1 to 14.

The relevant documents for the construction of this review were identified in PubMed and the JBI website (<https://jbi.global/>) in August 2022. Furthermore, the final references of the selected studies were consulted in order to obtain a broad spectrum of results and thus subsidize the orientation of the checklist items. In the end, a synthesis of the findings was elaborated, grounding the recommendations and new propositions, in order to refine and improve the methodological process of the scoping review protocol.

RESULTS AND DISCUSSION

Although the reference of the scoping review method was developed in 2005⁽⁴⁾, the discussion will occur from the creation of the PRISMA-ScR checklist in 2015, due to the transparency proposed by the authors, and to discuss the developments over the years.⁽⁵⁻⁹⁾

The material analyzed allowed the development of recommendations for improvement of the protocol in seven items of PRISMA-ScR, which will be discussed and exemplified according to table 1.

Table 1. Recommendations for construction of the scoping review protocol, according to JBI and study authors. Fortaleza, Ceará, Brazil, 2022.

Items	Joanna Briggs Institute	Authors' Recommendations
1	Title	Present "a scoping review protocol".
2	Summary	Include the expected outcome and conclusion of the protocol, highlighting the relevance of transparency.
4	Objectives	Point future objectives.
8	Research	Use descriptors from Medical Subject Headings (MeSH), Descriptors in Health Sciences (DeCS) and Emtree keywords. Follow the recommendations of the Araújo (2020) model: extraction, conversion, combination, construction, and use.
9	Selection of sources of evidence	Reference managers such as Rayyan, Mendeley, or EndNote. Use Cohen's Kappa Coefficient, Fleiss' Kappa, or Generalized Kappa test to analyze the agreement of the reviewers in the selection of sources.
13	Summary of results	Using software such as NVivo and IRaMuTeQ, can assist in the construction of qualitative results. Additionally, authors such as Bardin (content analysis) and Minayo (triangulation of methods).
14	Expected results	Perform the "expected outcome" section, where it is described how this new evidence is likely to contribute in the context of the EBHC.

Source: authors (2022).

The choice of a scoping review as a research method is justified because it enables the identification of different evidence in a specific field; it identifies, analyzes, and prioritizes research gaps; it clarifies concepts and theoretical definitions, investigates characteristics of a certain field or concept, and elucidates constitutive and operational definitions of a dimension. It is also used as a predecessor to a systematic review because its result can suggest a more detailed analysis of a specific objective. Since it deals with a broad research question, the method provides the opportunity to map the literature without conducting an analysis of the evidence. Thus, it is common to find that the research question may have sub-questions.

It is important that the scope review research question contain elements of the mnemonic PCC (Population, Concept, and Context) to better delineate the search strategy. The population includes the characteristics that qualify the research subjects, such as age, ethnicity, gender, comorbidity, and lifestyle, among others. The concept is the main question of the study and should clarify "the guiding question" to be worked on and accompany a defined theoretical element. Finally, the context presents information that can be geographic, cultural, or specific environments, such as primary, secondary, and tertiary care,

nursing homes, and schools. However, the population and context depending on the research question may be optional to describe. After the definition of the PCC, the next step is the elaboration of the question.

Example:

"Research question: what is the evidence on the use of digital technologies in the care of people with diabetes mellitus during the pandemic of COVID-19?, where P - people with Diabetes Mellitus; C - digital technologies, and C - COVID-19"^(14:2)

Once the research question is found, we proceed with the construction of the protocol. The PRISMA-ScR checklist presents 22 items, 20 of which are mandatory and 2 optional, clarified and exemplified below.

Item 1: Title

It should accompany the nomenclature "scoping review protocol" to facilitate indexing in different databases and identify the type of publication. The construction of a scoping review follows the production of the review protocol with the introduction, method, and sometimes, expected results. The results, discussion, and conclusion are added to the review itself.

Example:

"Nursing care models in elderly care: a scoping review protocol"^(15: 2064)

Item 2: Summary

In the protocol summary it is relevant to contain the elements of introduction, informing the scientific argument of the knowledge gap; **objective**; **method**, with the description of the eligibility criteria, sources of information (databases and gray literature), selection of studies, presentation of results and synthesis of knowledge; **expected result**, informing which gaps the study aims to fill and practical application of knowledge; and **conclusion**, to inform the transparency of the protocol to the improvement of scientific evidence. Depending on the journal, the introduction and conclusion are optional in the summary.

Example:

"Objective: to map the scientific evidence on the use of digital educational technology in health-related to HIV/AIDS, aimed at adolescents and young adults. Method: this is a scoping review protocol, structured according to the methodological guidelines of the Joanna Briggs Institute (JBI). Six databases will be used, using health descriptors. The search process, identification, and evaluation of articles will be carried out by two independent reviewers, guided by the assumptions established by the JBI, seeking to answer the following guiding question: What is the scientific evidence found about the use of digital educational technology in health-related to HIV/AIDS, targeting adolescents and young adults? We will include articles published in any language, public and private domain, and with different methodological approaches. Results will be presented according to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews. The protocol has been registered with Open Science"^(16:1)

Item 3: Justification

This is the introduction to the study and should contain the elements already known about the topic related to the mnemonic PCC. It presents what already exists in the literature from other types of reviews, when appropriate, and their contributions/limitations. These elements will facilitate the construction of the scientific argument for the proposition of a new review. It is relevant to conduct a previous search in protocol repositories to find out if there is any review under construction. If so, check what stage the review is at, how long it has been running, whether it has been completed, and the proposed objective. Another issue is when there is a need to update the review already published to check for new evidence. All these characteristics reinforce the construction of the justification of the study and its relationship with the type of review to be developed.

Example:

"The pandemic of COVID-19 imposed the need for new strategies and adaptations of health services to face the reality of social distance. This fact has provided the opportunity to improve processes and flows of the use of digital technologies in health, because these tools can improve access and quality of care, being effective in facilitating contact between health professionals and patients. A study identified that most of the technologies implemented in the pandemic involved health care providers and consumers, due to the extreme measures imposed to prevent the spread of COVID-19, interrupting the provision of health care services for many patients, especially those with chronic conditions. From this perspective, many countries sought to adopt health care innovations in order to provide continuity of care for clientele with chronic conditions and at risk for COVID-19, such as patients with diabetes mellitus (DM). Since the beginning of the new coronavirus pandemic, a bidirectional relationship between COVID-19 and DM has been pointed out. People with DM are at higher risk of developing complications when they have COVID-19, and also, SARS-CoV-2 could act as a diabetogenic agent because it is able to cause direct damage to the pancreas, which can worsen hyperglycemia and even induce DM in individuals without the disease. In addition, people with DM infected with SARS-CoV-2 have a higher rate of hospitalization, severe pneumonia, and higher mortality compared to individuals without DM. Therefore, the control of blood glucose and comorbidities must be individualized to reduce the incidence of complications and decrease the burden on health care systems. Thus, it is essential to use digital technologies with these patients during the pandemic to continuously monitor the clinic, allowing better management of the disease. Although studies on prevention, treatment, and COVID in DM have been developed, to date, few papers on the use of digital technologies in health and care for people with DM during the pandemic have been identified, and updating and continued mapping of new evidence supporting technology-mediated DM care during the pandemic is needed. Therefore, we aimed to map the evidence on the use of digital technologies in the care of people with DM during the pandemic of COVID-19"^(14:2)

Item 4: Objectives

The research objective should be articulated with a PCC mnemonic, presenting elements for the construction of the review. Verbs such as map, investigate, verify, visualize, portray, raise, detect, and others are used to identify the scope of the studies to be selected. Depending on the scope, secondary objectives can be used to answer the general research question.

Example:

"Map the scientific evidence on the use of digital educational technology in health-related to HIV/AIDS, directed to adolescents and young adults"^(16:1)

Item 5: Protocol and Registration

After the protocol has been constructed, registration in a public domain repository (Open Science Framework (OSF), Figshare, and Research-Gate) should be performed, and a DOI inserted to facilitate access to the record. The availability of the record allows other researchers to access the review under development and enable partnerships or the continuation of the project.

Example:

"This is a scoping review, conducted based on the methodological framework developed by the JBI and the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist. The review was registered in the Open Science Framework with DOI identification 10.17605/OSF.IO/WQD4P"^(14:2)

Item 6: Eligibility Criteria

The description of the eligibility criteria should present the characteristics of the central elements of the studies. It is emphasized the need to present the justification for each element of inclusion or exclusion. Relevant characteristics are language, year, type of publication, and elements of the PCC.

Example:

"As eligibility criteria of this scoping review, we established: publications on care for people with DM mediated by digital technologies during the pandemic, from the year 2019, beginning of the first reports of COVID-19, without language restriction. As for the

type of study, primary and secondary, empirical, quantitative, and qualitative research of any design or methodology was elected. Letters to the editor, abstracts in conference proceedings, incomplete articles, studies in project phase or without results were excluded.”^(14:2)

Item 7: Sources of Information

Sources of evidence should be reported, preferably with the assistance of a librarian, followed by the justification for the choice of each source. Databases, repositories, library catalogs, portals, websites, and gray literature should be presented separately. ⁽¹⁷⁾ It is advisable to use the gray literature since the objective of the research is to map the findings.

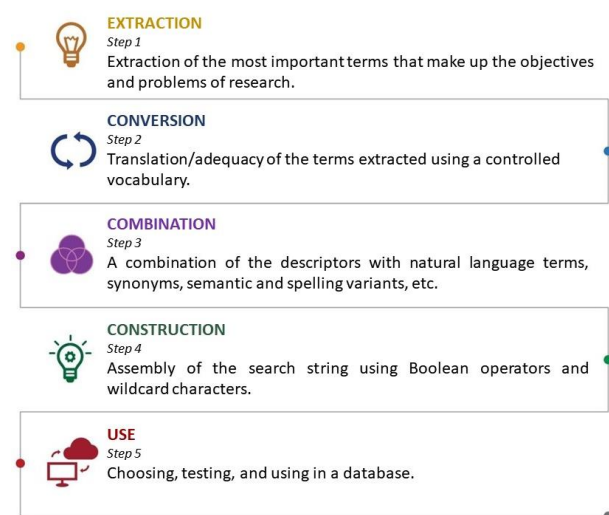
Example:

“The searches were performed on March 17, 2021, in the following databases: Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed, MEDLINE via Elton B. Stephens Company (EBSCO), MEDLINE via Virtual Health Library (VHL), Latin American and Caribbean Health Sciences Literature (LILACS), Web of Science, Scopus, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, and Embase. Gray literature was retrieved from seven sources: Google Scholar, Brazilian Digital Library of Theses and Dissertations (BDTD), Catalogue of Theses and Dissertations (CTD) of the Coordination for the Improvement of Higher Level Personnel (CAPES), OpenGrey, New York Academy of Medicine (NYAM) Library, ProQuest Dissertations and Theses (PQDT) and Open Access Theses and Dissertations (OATD)”^(14:2)

Item 8: Search

It is feasible to present at least one complete search strategy that can be reproducible to ascertain its sensitivity, in addition to informing the date of execution and its result. The controlled vocabularies are selected from Medical Subject Headings (MeSH), Health Science Descriptors (DeCS) and Emtree. It is indicated to include synonyms, both singular and plural, terms that can broaden and narrow searches, and finally, natural language.⁽¹⁸⁾ In this sense, the five-step model is used: extraction, conversion, combination, construction, and use, as shown in figure 1.⁽¹⁸⁾

Figure 1. Steps for the elaboration of the search strategy. Fortaleza, Ceará, Brazil, 2022.



Source: Araújo (2020)⁽¹⁸⁾.

After gathering the information, one should apply the proposed framework for the initial search of studies.

Example:

"A search equation was developed to map the evidence on the main causes of nosocomial infections in pediatric hospitals in developing countries. The equation is presented in table 2"⁽¹⁸⁾

Table 2. PCC Strategy. Fortaleza, Ceará, Brazil, 2022.

Objective/ Problem	What are the main causes of nosocomial infections in pediatric hospitals in developing countries?		
	P	C	C
Extraction	Pediatric Hospitals	Main causes of nosocomial infections	Developing Countries
Conversion	Pediatric hospital	Cross infection	Developing countries
Combination	pediatric hospital; child clinic; child health centre; childhealth centre; child health clinic; pediatric center; children hospital; children institution;child	cross infection; healthcare associated infection; hospital infection; nosocomial infection	developing countries; developing country; least developed countries; least developed country; less developed countries; less developed country; under developed nations; third world countries; third world nations; under developed countries; developing nation; less developed nation
Construction	("pediatric hospital" OR "child clinic" OR "child health centre" OR "children health centre" OR "child health clinic" OR "pediatric center" OR "childrenhospital" OR "children institution" OR child*)	("cross infection" OR "healthcare associated infection" OR "hospital infection" OR "nosocomial infection")	("developing countries" OR "developing country" OR "least developed countries" OR "least developed country" OR "Less developed countries" OR "less developed country" OR "under developed nations" OR "third world Countries" OR "third worldnations" OR "under developed countries" OR "developing nation" OR "less developed nation")
Use	("pediatric hospital" OR "child clinic" OR "child health centre" OR "children health centre" OR "child health clinic" OR "pediatric center" OR "children hospital" OR "children institution" OR child*) AND ("cross infection" OR "healthcare associated infection" OR "hospital infection" OR "nosocomial infection") AND ("developing countries" OR "developingcountry" OR "least developed countries" OR "least developed country" OR "Less developed countries" OR "less developed country" OR "under developed nations" OR "third world Countries" OR "third world nations" OR "under developed countries" OR "developing nation" OR "less developed nation")		

Source: Araújo (2020)⁽¹⁸⁾.

Currently, there is a recommendation to use PRISMA-S, which includes sixteen items to assist in the verification of the final report list. Its creation is to complement what is reported by the various types of reviews, ensuring the transparency and reproducibility of the searches.⁽¹⁹⁾

Item 9: Selection of Sources of Evidence

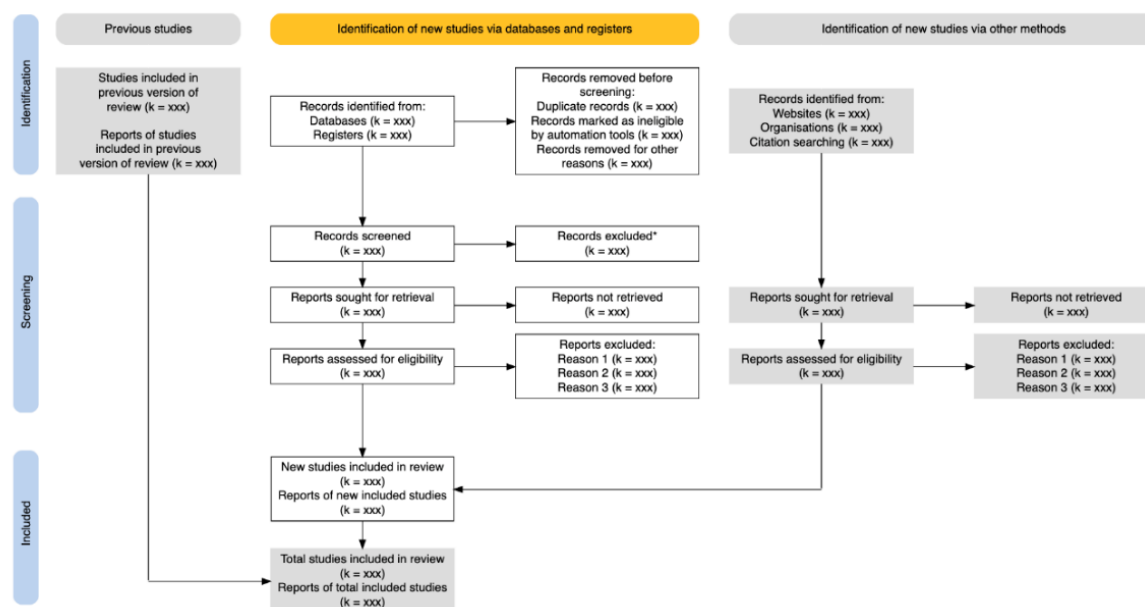
The process of selecting sources of evidence requires screening and eligibility of studies. At this stage, it is recommended to use a reference manager to assist the process, such as Rayyan, Mendeley, or EndNote. Initially, one adds all database searches and gray literature into a reference manager and proceeds to remove duplicates. Then, the studies are screened by reading the title and abstract of the text by at least two reviewers independently.

At this stage, it is recommended to use the statistical test to find out if there is agreement between the authors to continue the other stages of selection. Thus, Cohen's Kappa Coefficient is calculated, with the following classification: 0 - 0.20, none; 0.21 - 0.39, minimum; 0.40 - 0.59, weak; 0.60 - 0.79, moderate; 0.80 - 0.90, strong; above 90, almost perfect.⁽²⁰⁾

If three or more reviewers are involved, the agreement can be assessed by Fleiss' Kappa or Generalized Kappa. Altman (1991)⁽²¹⁾ proposes the following classification: 0 - 0.20, very weak; 0.21 - 0.40, weak; 0.41 - 0.60, moderate; 0.61 - 0.80, good; and 0.81 - 1.00, very good. If there is no agreement, it is necessary to conduct training among the reviewers to increase the reliability of the process.

The reviewers should read the full text and use the list of eligibility criteria, presenting the reasons for exclusion. To assist this step it is recommended to use the PRISMA (2020)⁽⁶⁾ flowchart, which includes searches in databases, protocols, and other sources as shown in figure 2.

Figure 2. PRISMA 2020 flow diagram for new systematic reviews that included only database and registry searches. Fortaleza, Ceará, Brazil, 2022.



Source: Tricco *et al.* (2018)⁽⁷⁾.

Example:

"The results obtained in the databases were exported to the Rayyan® reference manager, developed by Qatar Computing Research Institute (QCRI) for the removal of duplicates, selection and screening of studies by two researchers, independently, being the divergences resolved with the participation of a third examiner. The first phase comprised title and abstract reading. Studies that met the inclusion criteria were analyzed in the second phase by reading the full manuscripts. Finally, manual searches were performed in the references of the included studies" (14:2)

Item 10 and 11: Process of Data Charts and Data Items

The construction of the graphs of sources of evidence is carried out based on the information to be extracted from the selected studies. The variables to be worked on in the article's results must be listed or validated extraction forms must be presented. It is important to clarify the extraction process for the team: 1) who will do it; 2) independence of the extractions; 3) resolution of divergences; 4) previous testing of the data; 5) variables to be extracted; 6) resolution of missing or insufficient data. Then, list all the variables to be worked on and if there is recategorization, present the original and new variables.

The JBI manual recommends an extraction template⁽¹⁾ containing information regarding the details of the scoping review (title, objectives, and question); inclusion/exclusion criteria (population, concept, context, and types of evidence); details and characteristics of the evidence source (citation details, country, context, participants) and details/results extracted from the evidence source (in relation to the concept of the scoping review).

Example:

"First, the data were independently extracted by two reviewers using Microsoft Excel® spreadsheets. The information was confirmed by the third reviewer and divergences and doubts were resolved in discussions until a consensus was reached among the authors. The mapping of the information was based on the JBI tool to characterize the productions. The extraction table included authorship, journal of publication, country of origin, year of

publication, objectives, design, sample number, and main results regarding the identification of the technology used for monitoring the person with DM" (15:4)

Item 12 (Optional): Critical Appraisal of Individual Sources of Evidence

For scoping review studies, assessment of methodological quality and risk of bias is optional, because the goal is to conduct the literature mapping without assigning quality values to the evidence found. If the author wishes to conduct an evidence quality assessment, he or she must make explicit the reasons and justifications for conducting and the strategies used, such as the New JBI Levels of Evidence. (22)

Example:

"The quality of knowledge synthesis methods was assessed using the AMSTAR tool. The AMSTAR tool was created and validated to assess the methodological quality of systematic reviews of RCTs. The tool measures overall quality, where a score of 8 or higher is considered high quality, 4 to 7 is moderate quality, and 0 to 3 is low quality. The information for quality assessment was incorporated into the data extraction form, which was tested on a random sample of seven included articles ranging from low to high quality" (23:3)

Item 13: Summary of Results

Results syntheses in the scoping review are usually presented in descriptive or narrative forms, graphs, tables, charts, figures, or images. Software such as NVivo and IRaMuTeQ can help the construction of the qualitative results, because they enable different types of textual data analysis and provide the opportunity to identify and facilitate the interpretation of textual categories, according to the information found in the final topics. Additionally, authors such as Bardin (content analysis) and Minayo (triangulation of methods) can help in the construction of the synthesis. (24,25)

Example:

"The synthesis will be performed using Bardin's Content Analysis technique, due to the growing increase in productions that strengthen the objectivity and reliability of the work. In addition, we highlight the rigor of the steps based on the following pillars: exhaustiveness, representativeness, homogeneity, and pertinence; with categorization and grouping of the identified contents" (26:5)

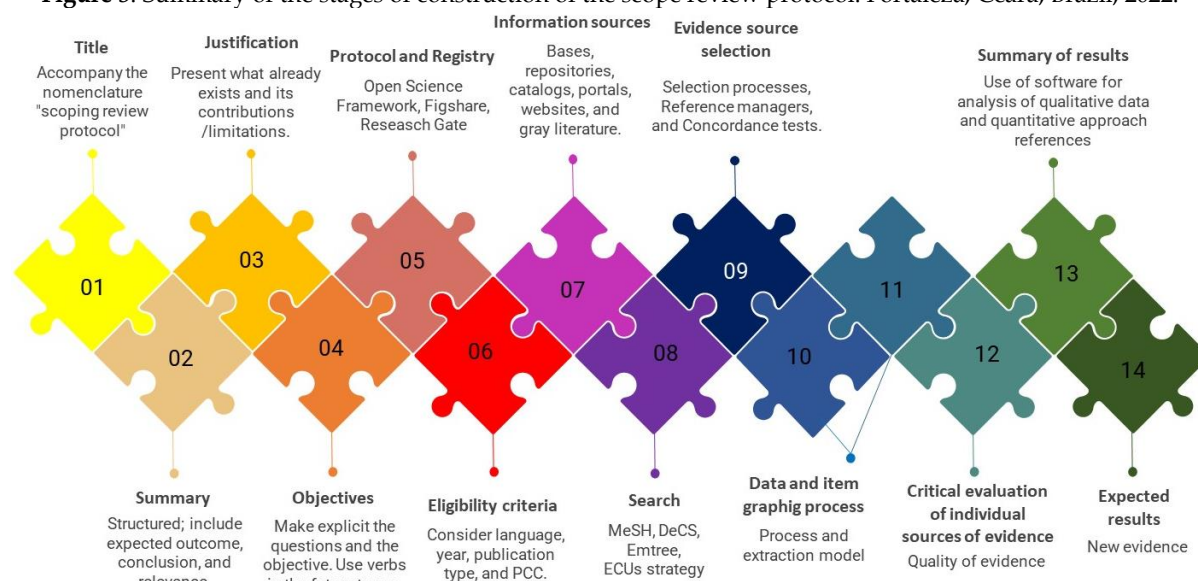
Item 14: Expected Outcome

For the review protocol, it is optional to make the "expected result" section, where it is described how this new evidence may collaborate in the context of the EBHC.

Example:

"This research will seek to organize the studies published to date to favor the analysis and operationalization of mental illness among health professionals. With the possibility of the pandemic control extending indefinitely with more risks of collapse in health systems and labor overload of the category considered in the research, it is relevant the identification of health strategies for expansion in public policies and intervention plans. The survey will produce data on the concept of emotional regulation and emotional labor (emotions in the workplace) to evaluate whether there are studies correlating these currents of intervention and the population under analysis. Considering the need for preventive or at least effective measures to reduce expenses (health, social security, and justice) and time to illness of the health workforce, this study will prove to be of relevant interest to the public" (26:6)

In summary, based on the JBI manual and recommendations proposed in this study, the construction of the scope review protocol can be visualized in Figure 3.

Figure 3: Summary of the stages of construction of the scope review protocol. Fortaleza, Ceará, Brazil, 2022.

Source: authors (2022).

Finally, the other phases of PRISMA ScR encompass the results of the evidence (items 15 to 18); discussion and limitation of the study (items 19 and 20); conclusion (item 21) and financing (item 22). Therefore, they will be worked on after the protocol is finalized and published in the media.

CONCLUSION

By highlighting and clarifying the phases for the improvement of the guide for the elaboration of the scope review protocol, based on PRISMA-ScR, a transparent and reproducible report was obtained. It is hoped that this study can assist researchers in the construction of the protocol and its transparency in healthcare, collaborating to the improvement of science worldwide and in the EBHC.

CONTRIBUTIONS

Contributed to the conception or design of the study/research: Mattos SM, Moreira TMM. Contributed to the analysis and/or interpretation of data: Mattos SM, Cestari VRF. Contributed to article writing or critical review: Mattos SM, Cestari VRF, Moreira TMM. Final approval of the version to be published: Mattos SM, Cestari VRF, Moreira TMM.

REFERENCES

1. Aromataris E, Munn Z, editors. JBI Manual for Evidence Synthesis [Internet]. 2020 [cited20 set. 2022]. Available from: <http://doi.org/10.46658/JBIMES-20-01>.
2. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol [Internet]. 2005 [cited20 set. 2022]; 8(1):19-32. Available from: <http://doi.org/10.1080/1364557032000119616>.
3. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. Implement Sci [Internet]. 2010 [cited21 set. 2022]; 5(1):69. Available from: <http://doi.org/10.1186/1748-5908-5-69>.
4. Peters MDJ, Godfrey CM, Khalil H, McInerney P, Parker D, Soares CB. Guidance for conducting systematic scoping reviews. Int J Evid Based Healthc [Internet]. 2015 [cited20 set. 2022]; 13(3):141-6. Available from: <http://doi.org/10.1097/XEB.0000000000000050>.
5. Colquhoun HL, Levac D, O'Brien KK, Straus S, Tricco AC, Perrier L, et al. Scoping reviews: Time for clarity in definition, methods, and reporting. J Clin Epidemiol [Internet]. 2014 [cited21 set. 2022]; 67(12):1291-4. Available from: <http://doi.org/10.1016/j.jclinepi.2014.03.013>.

6. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* [Internet]. 2021 [cited19 set. 2022]; 372. Available from: <http://doi.org/10.1136/bmj.n71>
7. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med* [Internet]. 2018 [cited15 set. 2022]; 169(7):467–73. Available from: <http://doi.org/10.7326/M18-0850>
8. Tricco AC, Lillie E, Zarin W, O'Brien K, Colquhoun H, Kastner M, et al. A scoping review on the conduct and reporting of scoping reviews. *BMC Med Res Methodol* [Internet]. 2016 [cited19 set. 2022]; 16(1):15. Available from: <http://doi.org/10.1186/s12874-016-0116-4>
9. Peters MDJ, Godfrey C, McInerney P, Khalil H, Larsen P, Marnie C, et al. Best practice guidance and reporting items for the development of scoping review protocols. *JBIM Evid Synth* [Internet]. 2022 [cited10 set. 2022]; 20(4):953–68. Available from: <http://doi.org/10.11124/JBIES-21-00242>
10. Barbosa Filho VC, Tricco AC. Scoping review: a relevant methodological approach for knowledge synthesis in Brazil's health literature. *Rev. bras. ativ. fís. saúde* [Internet]. 2019 [cited12 set. 2022]; 24:1–6. Available from: <http://doi.org/10.12820/rbafs.24e0082>
11. Pollock D, Alexander L, Munn Z, Peters MDJ, Khalil H, Godfrey CM, et al. Moving from consultation to co-creation with knowledge users in scoping reviews: Guidance from the JBI Scoping Review Methodology Group. *JBIM Evid Synth* [Internet]. 2022 [cited20 ago. 2022]; 20(4):969–79. Available from: <http://doi.org/10.11124/JBIES-21-00416>
12. Peters MDJ, Marnie C, Tricco AC, Pollock D, Munn Z, Alexander L, et al. Updated methodological guidance for the conduct of scoping reviews. *JBIM Evid Synth* [Internet]. 2020 [cited20 ago. 2022]; 18(10):2119–26. Available from: <http://doi.org/10.11124/JBIES-20-00167>
13. Peters MDJ, Godfrey C, McInerney P, Khalil H, Larsen P, Marnie C, et al. Best practice guidance and reporting items for the development of scoping review protocols. *JBIM Evid Synth* [Internet]. 2022 [cited20 ago. 2022]; 20(4):953–68. Available from: <http://doi.org/10.11124/JBIES-21-00242>
14. Negreiros FD da S, Araújo AL de, Mattos SM, Moreira TR, Cestari VRF, Silva LMS da, et al. Digital technologies in the care of people with diabetes during the COVID-19 pandemic: a scoping review. *Rev. Esc. Enferm. USP*. [Internet]. 2021 [cited08 set. 2022]; 55:1–11. Available from: <http://doi.org/10.1590/1980-220x-reeusp-2021-0295>
15. Peters MDJ, Marnie C. Nurse practitioner models of care in aged care: a scoping review protocol. *JBIM Evid Synth* [Internet]. 2022 [cited08 set. 2022]; 20(8):2064–70. Available from: <http://doi.org/10.11124/JBIES-21-00286>
16. Piran CMG, Fonseca BS da, Dias JR, Shibukawa BMC, Rissi G, Higarashi IH, et al. Digital educational technology on HIV/AIDS for adolescents and young adults: a protocol of scope review. *Online braz. j. nurs.* [Internet]. 2022 [cited08 set. 2022]; 21(Suppl 1):e20226564. Available from: <http://doi.org/10.17665/1676-4285.20226564>
17. Guimarães BR, Cruz de OC. Literaturas branca e cinzenta: uma revisão conceitual. *Ci. Inf.* [Internet]. 2008 [cited10 set. 2022]; 44(3):501–13. Available from: <http://doi.org/10.18225/ci.inf.v44i3.1804>
18. Araújo WCO. Recuperação da informação em saúde. *ConCI* [Internet]. 2020 [cited08 set. 2022]; 3(2):100–34. Available from: <http://doi.org/10.33467/conci.v3i2.13447>
19. Rethlefsen ML, Kirtley S, Waffenschmidt S, Ayala AP, Moher D, Page MJ, et al. PRISMA-S: an

extension to the PRISMA statement for reporting literature searches in systematic reviews. J Med Libr Assoc [Internet]. 2021 [cited08 set. 2022];109(2):174–200. Available from: <http://doi.org/10.5195/jmla.2021.962>

20. Cohen J. A Coefficient of Agreement for Nominal Scales. Educ Psychol Meas [Internet]. 1960 [cited08 set. 2022]; 20(1):37–46. Available from: <http://doi.org/10.1177/001316446002000104>

21. Altman DG. Practical statistics for medical research. New York: Chapman and Hall; 1991.

22. Institute Joanna Briggs. New JBI levels of evidence: developed by Joanna Briggs Institute Levels of Evidence and Grades of Recommendation Working Party. 2013.

23. Zarin W, Veroniki AA, Nincic V, Vafaei A, Reynen E, Motiwala SS, et al. Characteristics and knowledge synthesis approach for 456 network meta-analyses: a scoping review. BMC Med [Internet]. 2017 [cited12 set. 2022];15(1):3. Available from: <http://doi.org/10.1186/s12916-016-0764-6>

24. Minayo MCS. Introdução. In: Minayo MCS, Assis SG, Souza ES, editors. Avaliação por triangulação de métodos: Abordagem de Programas Sociais. 1ª ed. Rio de Janeiro: FIOCRUZ; 2005. p. 244.

25. Bardin L. Análise do Conteúdo. 1a. 70 E, editor. Lisboa; 2015. 288 p.

26. Silva PB, Mattos SM, De Araújo AL, Martins LL, De Oliveira LS, Marques SJS, et al. Autocuidado em saúde mental de profissionais da saúde durante a pandemia COVID-19 no Brasil: protocolo de revisão. Brazilian J Heal Rev [Internet]. 2021 [cited20 set. 2022]; 4(3):12579–86. Available from: <http://doi.org/10.34119/bjhrv4n3-229>

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