# **REVIEW PROTOCOL**

# Possible risk factors for acute pain related to nursing care in adults and the elderly: a scoping review protocol

Possíveis fatores de risco de dor aguda relacionados aos cuidados de enfermagem em adultos e idosos: protocolo de *scoping review* 

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Submission: 02/24/2023 Approved: 05/15/2024 **Objective:** to map the possible risk factors for acute pain, related to nursing care, in adults and the elderly in health services. **Method:** Scope Review Protocol (Registry Open Science Framework – OSF, DOI: 10.17605/OSF.IO/JCA9P, which will follow the methodology of the Joanna Briggs Institute. Preliminary research will be carried out in PubMed and Cumulative Index to Nursing and Allied Health Literature (CINAHL), to identify the most commonly used indexing terms in articles. Then, these keywords will be used to develop the search strategy in the other databases. The reference list of the retrieved articles will be analyzed for inclusion in the study. Full studies, in all languages, with no time restriction, with adults/older adults will be included. Two independent and masked reviewers will select the titles, abstracts, and full text. Discrepancies will be resolved by a third reviewer. The data will be extracted in a specific form and the results will be grouped according to the specificities and presented in narrative text, figures, and graphs.

**Descriptors:** Nursing; Nursing Diagnosis; Acute Pain.

# RESUMO

ABSTRACT

**Objetivo:** mapear os possíveis fatores de risco para dor aguda relacionados aos cuidados de enfermagem em adultos e idosos nos serviços de saúde. **Mé-todo:** protocolo de *scoping review* (registro *Open Science Framework* – OSF, DOI: 10.17605/OSF.IO/JCA9P), que seguirá a metodologia do Joanna Briggs Institute (JBI). Realizar-se-á pesquisa preliminar no PubMed e *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) para identificar os termos de indexação mais utilizados nos artigos. Em seguida, essas palavras-chave serão utilizadas para elaborar a estratégia de busca nos outros bancos de dados. A lista de referências dos artigos recuperados será analisada para inclusão no estudo. Serão incluídos estudos na íntegra, em todos os idiomas, sem restrição temporal, com adultos/idosos. Dois revisores independentes e mascarados selecionarão os títulos, resumos e texto completo. As divergências serão resolvidas por um terceiro revisor. Os dados serão extraídos em formulário específico, e os resultados, agrupados de acordo com as especificidades, apresentados em texto narrativo, figuras e gráficos.

Descritores: Enfermagem; Diagnóstico de Enfermagem; Dor Aguda.

# INTRODUCTION

Pain was considered the fifth vital sign in 1996 by James. Campbell intended to encourage health care providers to listen to their patients and assess their pain since such a signal was often ignored<sup>(1-3)</sup>. In 2020, the concept of pain was revised by the International Association for the Study of Pain (IASP), it is defined as "an unpleasant sensory and emotional experience, associated, or similar to that associated, with an actual or potential tissue injury<sup>"(4:7)</sup>. In addition, the experience of pain is considered personal and can be influenced, to varying degrees, by biological, psychological, and social factors<sup>(5)</sup>.

Pain is a subjective and complex experience that prevents it from being directly assessed. There is no standard instrument through which an

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external observer can objectively measure this internal experience<sup>(6)</sup>. This fact requires specific skills and knowledge to assess painful behavior. One-dimensional instruments are easy to apply and help measure pain intensity; The most commonly used are visual, numerical, nominal, and analog-visual scales. Multidimensional instruments, on the other hand, allow the evaluation of the painful experience in its various dimensions (intensity, location, and affective and sensory qualities of pain). The most popular multidimensional pain scales are the McGill Pain Questionnaire (MPQ), the Short-Form (SF) MPQ, the Brief Pain Inventory (BPI), and Chronic Pain Grade (CPG)<sup>(7-8)</sup>. These scales were adapted to the Portuguese language and validated in studies conducted in Brazil<sup>(9-14)</sup>. The temporal parameter to classify pain as acute or chronic is variable<sup>(2)</sup>. For the present review, the temporal criterion for the classification of acute pain will follow the NANDA-I taxonomy(15:510), which considers that "acute pain is an unpleasant sensory and emotional experience associated with actual or potential tissue injury (...), of sudden or slow onset, of mild to intense intensity, with early or foreseeable termination and with duration of less than three months".

Patients receiving treatment in health services are often exposed to procedures/interventions that can cause acute pain. Peripheral venipuncture and intravenous, intramuscular, subcutaneous, and intradermal vaccines and medications are the most prevalent interventions throughout life and, for some patients, are associated with pain<sup>(16-17)</sup>. Pain related to procedures/interventions, when not properly managed, can influence patients' search for health services in the future and, consequently, compromise their health status<sup>(18)</sup>.

As part of the Nursing Process, the Nursing Diagnosis emerges from judgments or evaluations about human needs. Therefore, once a nursing diagnosis is identified, a result to be achieved based on nursing interventions should be defined<sup>(19-20)</sup>. That said, the nursing team should be alert not to neglect the "risk of acute pain" that may be present during invasive procedures<sup>(17)</sup>, and physical, chemical, or biological harmful agents<sup>(15)</sup>.

The administration of analgesic drugs is the most implemented collaborative nursing intervention with the physician when the nurse is faced with the diagnosis of acute pain <sup>(20-21)</sup>. However, the literature also points to several non-pharmacological nursing interventions when there is a risk of the patient presenting pain, as is the case of patients undergoing surgical procedures<sup>(22)</sup>. Interventions can be implemented directly or indirectly through: taking advantage of a trusting relationship; calm environment; creating a feeling of overall comfort; changes in position; distraction to divert attention from the pain; Music therapy; Cryotherapy; alteration in stimulus conduction; behavioral modification techniques; promotion of self-confidence; establishing good communication; emotional support for the patient and family; Use of animal-assisted therapy and mindfulness practices<sup>(23-27)</sup>. Thus, it can be said that the risk of acute pain is seen as a potential problem for nursing, subject to interventions that may give rise to a new diagnosis of risk nursing. However, professionals must have knowledge on which are the risk factors for acute pain to implement interventions that avoid or minimize pain. Thus, the present study aims to map, using a scoping review, the possible risk factors for acute pain, related to nursing care, in adults and elderly in health services. In this sense, for the review to be developed with high methodological rigor, it is necessary to develop the protocol, which contemplates the characteristics of the project and the planned analyses, to ensure that the methods are transparent and reproducible, to avoid biases in the conduct of the review<sup>(28)</sup>. It is also noteworthy that in a previous search of information sources, no reviews or similar protocols were found, which justifies the performance of the present study.

# METHOD

The proposed scoping review will be conducted on the methodological recommendations of the Joanna Briggs Institute (JBI)<sup>(29)</sup>. The extension will use Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR)<sup>(30)</sup> when reporting the results of the scoping review. The protocol was registered in the Open Science Framework (OSF), available at: https://doi.org/10.17605/ OSF.IO/JCA9P.

For the question and objective of the research, the mnemonic PCC (Participants, Concept, and Context) will be used, as proposed by the JBI, which will be described below, according to the research question: What are the possible risk factors for acute pain, related to nursing care, in adults and elderly in health services?

## **Inclusion Criteria**

## Participants

This scoping review will consider studies with adults over 18 years of age and the elderly. Studies with newborns, children, and adolescents will be excluded.

## Concept

Studies exploring possible risk factors for acute pain will be included and those that do not address acute pain and its risk factors will be excluded.

## Context

The proposed review will cover studies related to nursing care.

## **Types of sources**

This review will include randomized studies, case studies, quasi-experimental or observational studies, literature reviews, reports, theses, or dissertations, among others considered relevant to the review question. Studies that do not present results will be excluded as well as studies whose full text is not available in full for reading and animal research.

## Search strategy

The search strategy aims to find published and unpublished studies and, according to the guidelines of the JBI<sup>(29)</sup>, will be carried out in three stages. At first, a preliminary search was carried out in the PubMed and CINAHL databases, to identify the indexing terms most used to describe the articles of interest. An example of a search in CINAHL can be found in Figure 1. The next step will be the use of these keywords observed in the first step in all other selected databases, and this advanced search strategy will be built with the help of a librarian. For this purpose, an electronic search will be carried out in the Medical Literature Analysis and Retrieval System Online (MEDLINE) databases via PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCO, Scientific Electronic Library Online (SciELO), Scopus, Web of Science, Latin American and Caribbean Health Sciences Literature (LILACS), Cochrane Database of Systematic Reviews and Joanna Briggs Institute Database of Systematic Reviews.

Figure 1 – Initial search strategy in the CINAHL database. Viçosa, MG, Brazil, 2023.

	CINAHL	
TERMS		
População	Conceito	Contexto
"Adult"	"Risk Factors"	"Nursing care"
"Aged"		
"Aged, 80 and over"		
	"Acute pain"	
	"Pain"	
	ESTRATÉGIA DE BUSCA CINAHL	
(TX Adult OR TX Aged OR TX Aged, 80	) and over) AND (TX Risk Factors) A	ND (TX pain OR acute pain) AND (T>

nursing care)

#### **RESULT: 421**

The search strategy, including all identified keywords and indexing terms, will be adapted for each database and included in the full published manuscript. Reference lists will also be evaluated for additional sources of evidence.

Concerning unpublished studies and grey literature, a search will be carried out with the same or equivalent descriptors in the Open Access Scientific Repositories of Portugal, the Thesis and Dissertation Bank of the Coordination for the Improvement of Higher Education Personnel (Capes), and Google Scholar. Studies in all languages and with no time restriction will be included.

## **Selection of studies**

After the research, all identified records will be grouped and uploaded to the online bibliographic reference manager (EndNote), where analysis of duplicates and their exclusions will be performed.

To reduce risk and maintain the methodological quality of the review, the selection of studies will be made by two independent reviewers, using a third reviewer whenever divergences are clarified. The initial screening will include the reading of the titles and abstracts of the publications. Then, after the initial screening among the reviewers and established consensus, the selected articles will be read in full by each reviewer, independently, to exclude those that do not meet the objective of the study and the guiding question.

To increase the reliability of the judgment in the two initial stages, training will be carried out with the reviewers, followed by a pilot with the evaluation of three studies<sup>(31)</sup>.

The systematization of the search, identification, and selection phases will be represented by a flowchart (Figure 2) adapted from the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA)<sup>(30)</sup>.

**Figure 2** - Fluxogram of the selection process that will be the basis of the research (adapted from Prisma Flow Diagram). Viçosa, MG, Brazil 2023



#### **Data extraction**

Data extraction will be performed using a form developed by the authors (Figure 3), based on the model recommended by the JBI<sup>(29)</sup>. The extracted data will include details that highlight the purpose and guiding question of this review; the database; title and year of publication; Authors; country; goal; keywords; population; context of collection; key findings related to the question in this review; possible risk factors described in the study; and final considerations. The data obtained in this extraction step will be stored in an electronic spreadsheet created in the Microsoft Excel® program. It should also be noted that this form may change, and if necessary, they will be recorded in the final report of the

Database		
Title		
Authors		
Year of Publication		
Country		
Objective		
Keywords		
Population		
Context of collection		
Key findings related to the question in this scoping review		
Possible risk factors		
Final Considerations		

#### Data analysis and presentation

The results of the selection will be presented in a PRISMA flowchart  $^{(30)}$ .

Possible risk factors for acute pain related to nursing care in adults and the elderly will be presented in a schematic format, grouped by specificities and tabulated in line with the objective of this review. The mapping of the evidence will allow the identification of the risk factors for the elaboration of the possible nursing diagnosis of acute pain risk. It is expected that this review will constitute a starting point for the analysis and systematization of studies related to possible risk factors for acute pain in adults and the elderly and may support the next stage of research to validate these risk factors and make a proposition for NANDA-I<sup>®</sup> of a new risk nursing diagnosis.

#### **CONFLICT OF INTERESTS**

The authors have declared that there is no conflict of interests.

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