

**VOL. 7, N° 1** 

Literature review

DOI - 10.33194/rper.2024.358 | Electronic identifier – e358

Submission date: 30-07-2023; Acceptance date: 25-01-2024; Publication date: 27-03-2024

# INTERVENÇÕES DE ENFERMAGEM DE REABILITAÇÃO AO PACIENTE COM LESÃO MEDULAR: PROTOCOLO DE REVISÃO DE ESCOPO

REHABILITATION NURSING INTERVENTIONS FOR PATIENTS WITH SPINAL CORD INJURY: SCOPE REVIEW PROTOCOL

INTERVENCIONES DE ENFERMERÍA DE REHABILITACIÓN PARA PACIENTES CON LESIÓN DE LA MÉDULA ESPINAL: PROTOCOLO DE REVISIÓN DEL ALCANCE

Amanda Sarkis Moor Santos Xavier<sup>1</sup> ; Juarez de Souza Pereira<sup>2</sup> ; Ricardo da Silva Monteiro<sup>2</sup> ;

Vanessa Vianna Cruz<sup>2</sup> ; Hilmara Ferreira da Silva<sup>3</sup> ; Wiliam César Alves Machado<sup>1</sup>

<sup>1</sup>Universidade Federal do Estado do Rio de Janeiro - UNIRIO, Rio de Janeiro, Brasil <sup>2</sup>Universidade Federal do Estado do Rio de Janeiro, Rio de Janeiro, Brasil <sup>3</sup>Universidade Federal Fluminense – UFF, Rio de Janeiro, Brasil

Corresponding Author: Amanda Xavier, mandyenf@edu.unirio.br

**How to Cite:** XAVIER A, Juarez de Souza Pereira, Ricardo da Silva Monteiro, Vanessa Vianna Cruz, Hilmara Ferreira da Silva, Wiliam César Alves Machado. Intervenções de Enfermagem de reabilitação ao paciente com lesão medular: Protocolo de Revisão de escopo. Rev Port Enf Reab [Internet]. 27 de Março de 2024 [citado 29 de Março de 2024];7(1):e358. Available in: https://rper.aper.pt/index.php/rper/article/view/358

#### **TECHNICAL FILE**

eISSN: 2184-3023 pISSN: 2184-965X

www.rper.pt

### INTELLECTUAL PROPERTY

Associação Portuguesa dos Enfermeiros de Reabilitação

www.aper.pt

The journal's editorial team can be consulted on https://rper.aper.pt/index.php/rper/about/editorialTeam

The journal's review team can be consulted on https://rper.aper.pt/index.php/rper/revisores



# **RESUMO**

Introdução: A lesão da medula espinal é toda injúria às estruturas contidas no canal medular (medula, cone medular e cauda equina), podendo levar a alterações motoras, sensitivas, autonômicas e psicoafetivas e que causam repercussões físicas, psíquicas e sociais. Estudos apontam uma fragilidade na assistência à saúde do paciente com este tipo de lesão incapacitante, no contexto da Atenção Primária à Saúde e a necessidade de ações de educação permanente sobre o tema de reabilitação aos Enfermeiros. Apesar de ser a porta de entrada aos serviços de saúde e o primeiro nível de atenção ao usuário inserido em seu território, dentro de sua residência, esses usuários ainda vivenciam dificuldades como a desqualificação profissional para o atendimento integral ao paciente com lesão da medula espinal. O objetivo do estudo é desenvolver um protocolo de revisão de escopo que buscará identificar e sintetizar as evidências científicas disponíveis sobre as intervenções de enfermagem focadas na autonomia para atividades cotidianas de pessoas com lesão medular na Atenção Básica de Saúde.

Metodologia: Será utilizado o método proposto pelo JBI (Joanna Briggs Institute) e para sistematização das informações será utilizada a extensão PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) através do check list PRISMA ScR (Extension for Scoping Reviews), garantindo maior transparência e rigor metodológico. O presente protocolo será indexado na plataforma Open Science Framework.

Resultados: A busca dos textos será efetuada em nove bases de dados e na literatura cinzenta. Três revisores efetuarão a análise e seleção dos estudos, com auxílio do gerenciador de Diagrama de Fluxo PRISMA. Divergências serão dirimidas por um quarto revisor. Os dados serão extraídos conforme Ficha sistematizada para coleta dos dados referente à Revisão de Escopo e organizados no software Excel, e as conclusões dos estudos serão analisadas com auxílio de software.

**Discussão:** Os resultados serão apresentados de modo tabular e narrativo, visando alcançar objetivo e questão de revisão deste protocolo.

Conclusão: Espera-se que o estudo fortaleça a reabilitação nas práticas de Enfermagem na Atenção Primária à Saúde elucidando a necessidade de formação de Enfermeiros Especialistas em Enfermagem de Reabilitação (EEER) nas ações de Educação em Saúde.

**Descritores:** Atenção Primária à Saúde; Enfermagem; Traumatismo da Medula Espinal; Pessoa com deficiência; Reabilitação;

### **ABSTRACT**

**Introduction:** Spinal cord injury is any injury to the structures contained in the spinal canal (medulla, conus medullaris and cauda equina), which can lead

to motor, sensory, autonomic and psycho-affective changes that cause physical, psychological and social repercussions. Studies indicate a fragility in the health care provided to patients with this type of disabling injury, in the context of Primary Health Care and the need for ongoing education actions on the subject of rehabilitation for Nurses. Despite being the gateway to health services and the first level of care for users within their territory, within their homes, these users still experience difficulties such as professional disqualification for providing comprehensive care to patients with spinal cord injuries. The aim of the study is to develop a scoping review protocol that will seek to identify and synthesize the available scientific evidence on nursing interventions focused on autonomy for daily activities of people with spinal cord injury in Primary Health Care.

Methodology: The method proposed by JBI (Joanna Briggs Institute) will be used and the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) extension will be used to systematize the information through the PRISMA ScR (Extension for Scoping Reviews) checklist, ensuring greater transparency and methodological rigor. This protocol will be indexed on the Open Science Framework platform.

Results: The search for texts will be carried out in nine databases and gray literature. Three reviewers will carry out the analysis and selection of studies, with the help of the PRISMA Flow Diagram manager. Discrepancies will be resolved by a fourth reviewer. The data will be extracted according to the systematized form for data collection regarding the Scope Review and organized in Excel software, and the conclusions of the studies will be analysed with the help of software.

**Discussion:** The results will be presented in a tabular and narrative format, aiming to achieve the objective and review question of this protocol.

**Conclusion:** It is expected that the study will strengthen rehabilitation in Nursing practices in Primary Health Care by elucidating the need for training Specialist Nurses in Rehabilitation Nursing (SNRN) in Health Education actions.

**Descriptors:** Primary Health Care; Nursing; Spinal Cord Injury; Disabled person; Rehabilitation; Spinal column trauma;

# **RESUMEN**

Introducción: La lesión medular es cualquier lesión de las estructuras contenidas en el canal raquídeo (médula, cono medular y cola de caballo), que puede provocar cambios motores, sensoriales, autonómicos y psicoafectivos que provocan repercusiones físicas, psicológicas y sociales. Estudios señalan fragilidad en la atención a la salud

brindada a los pacientes con este tipo de lesión incapacitante, en el contexto de la Atención Primaria de Salud y la necesidad de acciones de educación continua en materia de rehabilitación del Enfermero. A pesar de ser la puerta de entrada a los servicios de salud y el primer nivel de atención para los usuarios dentro de su territorio, dentro de sus hogares, estos usuarios aún experimentan dificultades como la inhabilitación profesional para brindar atención integral a pacientes con lesiones medulares. El objetivo del estudio es desarrollar un protocolo de revisión de alcance que buscará identificar y sintetizar la evidencia científica disponible sobre intervenciones de enfermería centradas en la autonomía para las actividades diarias de personas con lesión medular en Atención Primaria de Salud.

Metodología: Se utilizará el método propuesto por JBI (Joanna Briggs Institute) y se utilizará la extensión PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) para sistematizar la información a través de la lista de verificación PRISMA ScR (Extension for Scoping Reviews), garantizando una mayor transparencia y rigor metodológico. Este protocolo estará indexado en la plataforma Open Science Framework.

Resultados: La búsqueda de textos se realizará en nueve bases de datos y literatura gris. Tres revisores realizarán el análisis y selección de estudios, con la ayuda del gestor del Diagrama de Flujo PRISMA. Las discrepancias serán resueltas por un cuarto revisor. Los datos serán extraídos según el formulario sistematizado de recolección de datos de la Revisión de Alcance y organizados en software Excel, y las conclusiones de los estudios serán analizadas con ayuda de software.

**Discusión:** Los resultados se presentarán en formato tabular y narrativo, con el objetivo de lograr el objetivo y la pregunta de revisión de este protocolo.

Conclusión: Se espera que el estudio fortalezca la rehabilitación en las prácticas de Enfermería en la Atención Primaria de Salud, al dilucidar la necesidad de formación de Enfermeros Especialistas en Enfermería de Rehabilitación (EEER) en acciones de Educación en Salud.

**Descriptores:** Atención primaria de salud; Enfermería; Lesión de la médula espinal; Persona discapacitada; Rehabilitación; Traumatismo de la columna vertebral;

## INTRODUCTION

Spinal cord injury (SCI) is a devastating health condition, which is associated with permanent disability and reduced life expectancy<sup>(1)</sup>. It is an injury to the structures contained in the spinal canal (medulla, conus medullaris and cauda equina), which

can lead to motor, sensory, autonomic and psycho--affective changes that cause physical, psychological and social repercussions<sup>(2)</sup>. These changes manifest mainly as paralysis or paresis of the limbs, changes in muscle tone, changes in superficial and deep reflexes, changes or loss of different sensitivities (tactile, painful, pressure, vibratory and proprioceptive), loss of sphincter control, sexual dysfunction and autonomic changes such as vasoplegia, changes in sweating, body temperature control, among others<sup>(2)</sup>. The sequelae can range from impaired mobility, due to restriction to a wheelchair or bed, compromised skin integrity with a greater predisposition to pressure ulcers, to a lack of control over elimination (1,2,3). SCI also generates consequences such as neuropathic pain, spasticity, automatism and pressure ulcer injuries (1,4,5).

SCI is a type of physical disability that can cause paraplegia or quadriplegia. The difference between paraplegia and tetraplegia is demonstrated in terms of the level of the injury, as the first results in the impairment of the sensory and motor functions of the lower limbs and the second involves the impairment of the same functions at the level of the upper and lower limbs <sup>(6)</sup>.

Regarding socio-demographic issues, the studies provided information that characterized patients with an average age of 42.3 years old, young men (88.2%), Catholic (41.3%), single (58.9%), with low education (63.1%), non-white (60%), with per capita income of up to 1 minimum wage (93.8%). (2,9,10,13) The characterization in relation to the public of Nurses who work in PHC, the studies pointed to 90.9% being female, an average age of 46.8 years without further information about the characterization of professionals. Regarding managers, no studies were found on the topic (5).

The complication in SCI does not only involve physical aspects, but the individual also goes through behavioral phases (shock, denial, recognition and adaptation) in which both psychological support and understanding from other professionals and family members are necessary. Thus, in the face of so many repercussions, it is also observed that the individual needs to learn to deal with vulnerability as they have to deal with prejudices, suffering, sadness, anxiety, frustrations, impotence and many other psychological and behavioral issues (5, 6,7,8,9).

In the care of patients with SCI, several actions are necessary that must begin in the first care provided by the Multidisciplinary team, aiming at social reintegration. Therefore, the actions of this team, family members and support network must take place in a network from the acute phase in actions, in order to allow for the social and economic inclusion of patients with SCI sequelae in the future. This process must be developed by all Primary Health Care professionals, their families and support network (6,7,8,9).

Studies point to a fragility in health care for patients with SCI, in the context of Primary Health Care. Despite being the gateway to health services and the first level of care for users within their territory, these users point to a professional disqualification and difficulty in accessing services. Primary care professionals indicate the need for health education actions in the field of rehabilitation, providing fragmented assistance. Users face difficulties in scheduling appointments and exams, scheduling referrals and counter-referrals. Still, there are no continuous actions to care for individuals with SCI (10,11,12)

Regarding protection, the Basic Health Units do not ensure it due to the lack of construction of supportive, welcoming, effective and resolute health practices for the subject with SCI. Most Basic Health Units do not have a physical structure adapted to receive users with spinal cord injuries due to their dependence on a wheelchair<sup>(11,12)</sup>.

The reason for carrying out the scoping review is the gap in scientific knowledge identified in scientific databases. Preliminary searches were carried out in the MEDLINE and JBI Evidence Synthesis databases and no ongoing or completed scoping review research on this topic was identified.

The aim of this Scope review protocol will be to: develop a scope review protocol that will seek to identify and synthesize the available scientific evidence on nursing interventions focused on autonomy for daily activities of people with spinal cord injury in Primary Health Care.

### **METHODOLOGY**

The scoping review methodology used to anchor this protocol will be the Joanna Briggs Institute (JBI), Reviewers Manual13,14,15, which lists five steps to be followed, namely:

- 1) identification of the research question;
- 2) identification of relevant studies;
- 3) selection of studies;
- 4) data analysis; and
- 5) grouping, synthesis and presentation of data.

This scoping review will consider experimental and quasi-experimental study designs, including trials, randomized clinical trials, non-randomized clinical trials, before and after studies, and interrupted time series studies. Additionally, analytical observational studies, including prospective and retrospective cohort studies, case-control studies, and cross-sectional analytical studies will be considered for inclusion. This review will also consider descriptive observational study designs, including case series, individual case reports, and descriptive cross-sectional studies for inclusion. In addition,

systematic reviews that meet the inclusion criteria will also be considered, depending on the research question.

A scope review protocol was carried out, where it is registered on the Open Science Framework platform on https://osf.io/xhjva/, DOI 10.17605/OSF.IO/XHJVA

# 2.1.1 STEP 1 - IDENTIFICATION OF THE RESEARCH QUESTION

This is a Scope Review study, according to the research method proposed by the Joanna Briggs Institute (JBI)<sup>(13)</sup>. This method allows you to synthesize knowledge in the health field, in addition to mapping the main concepts, clarifying research areas and identifying knowledge gaps. To construct the research question, the Population, Concept and Context (PCC) strategy was used for a Scope Review. The following were defined: P- Person with spinal cord injury C- Rehabilitation Nursing Care and C-Primary Care. Studies that only addressed Rehabilitation Nursing without considering the link with Primary Health Care were excluded. Based on these definitions, the guiding question was established: What are the rehabilitation nursing interventions to promote the autonomy of people with spinal cord injury in care? primary health care?"

# 2.1.2 STEP 2 - IDENTIFICATION OF RELEVANT STUDIES

The search strategy will aim to locate published studies and knowledge gaps existing in the scientific literature. From the PCC elements, a set of descriptors present in the Health Sciences Descriptors (DeCS) and the Medical Subject Headings (MeSH) in Portuguese, English and Spanish were selected. These descriptors will enable the development of search strategies with the combination of Boolean operators (AND/OR) available in the databases: VHL Portal, Pubmed, Scopus, Embase, Web of Science and Digital Library of Theses and Dissertations (BDTD) and gray literature.

Figure 1 – Table of descriptors

Enferma Enfermagem	Deficiência Física, Deficiência Física, Deficiência Física, Deficiência Física, Deficiência Física, Deficiência Física, Persoa com Deficiência Física, Pessoa com Deficiência Física, Pessoa com Incapacidade, Pessoa com Incapacidade, Pessoa com Deficiência, Pessoa com Deficiencia, Pessoa com Incapacidade, Pessoa com Incapacidade Física, Personas con Deficiencia Física Personas con
	gem OR OR OR

Reabilitação	OR Habilitação	OR	Rel	Habilit ation		Rehabilitación		Rehabilitació
					$\Box$		OR	
Traumatis mos da Medula Espinal	Lesões da Medul. Espinal Lesões da Medul. Espinhal Mielopatia Traumática Traumas da Medula Espinhal Traumas da Medula Espinhal Traumas Medular s Traumatismos da Medula Espinhal Traumatismos Medula Espinhal	OR	S	Injurie s		Traumatismos de la Médula Espinal	OR	Traumatismo de la Médula Espinal
Atenção Primária à Saúde	Atendimento Básico Atendimento Primário Atendimento Primário de Saúde Atenção Básica à Saúde Atenção Básica de Saúde Atenção Primária Atenção Primária de Saúde Atenção Primária de Saúde Cuidado de Saúde Primário Cuidado Primário de Saúde Primários Cuidados Primários de Saúde Primários Nível de Atenção Primeiro Nível de Cuidados Primeiro Nível de Cuidado Primeiro Nível de Cuidados	OR	Pi H	Health care, Primar y Primar y Care Primar y Health care		Atenció n Primaria de Salud	OR	Asistencia Primaria Asistencia Primaria de Salud Asistencia Sanitaria de Primer Nivel Atención Primaria Atención Sanitaria de Primer Nivel Asistencia Sanitaria Primer Nivel d Atención de Salud Primer Nivel d Atención de Salud Primer Nivel d Sanitaria Primer Nivel d Atención de Salud Primer Nivel d Sanitaria Primer Nivel d Sanitaria Primer Nivel d Sanitaria Primer Nivel d Sanitaria

Source: It was created by the authors (2023)

A prior search was carried out in the MEDLINE and CINAHL databases to identify articles on the topic. With the expectation of expanding searches for references beyond databases, special attention will be given to the list of references of studies retrieved for potential inclusion or exclusion according to the criteria adopted.

The search will be carried out in the following databases: Virtual Health Library (VHL), U.S. National Library of Medicine (PubMed), Cumulative Index

to Nursing and Allied Health Literature (CINAHL), Latin American and Caribbean Literature in Health Sciences (LILACS) via VHL, Web of Science, EMBASE, Bibliographic Database on Health Care in Iberoamérica (CUIDEN), Google Scholar and SCIELO. In addition to searching the CAPES Theses and Dissertations Catalog. The gray literature search for non-indexed materials will be conducted using Google Scholar.

#### 2.1.3 STEP 3 - STUDIES SELECTION.

The search strategies used in each database will be recorded in tables in the Microsoft Excel program, where the databases of the respective publications will be spreadsheeted, the total after studies excluded due to duplication, the quantity recovered after reading the titles and abstracts of those selected for complete reading and the final total selected.

The text words contained in the titles and abstracts of relevant articles and the indexing terms used to describe the articles will be used to develop a comprehensive database search strategy. The search strategy, including all identified keywords and indexing terms, will be adapted for each database and/or information source included. The reference list of all included evidence sources will be examined for further studies.

Studies published in Portuguese, English and Spanish will be included. The selected studies will comply with the time frame of 1994, when Primary Care was implemented in Brazil, through the Family Health Program, with the then inclusion of the professional Nurse in the composition of the minimum home care team.

After the search, all identified citations will be grouped and duplicates removed. Following pilot testing, titles and abstracts will be selected by two or more independent reviewers for assessment against the inclusion criteria for the review. Potentially relevant sources will be retrieved in full, and their citation details imported into the IBI System

for Unified Management, Assessment and Review of Information (JBI SUMARI). The extracted data will include specific details about the participants, concept, context, study methods, and key findings relevant to the review question. The draft data extraction tool will be modified and revised as necessary during the data extraction process from each included evidence source. The changes will be detailed in the scope review. Any disagreements that arise between reviewers will be resolved through discussion or with one or more additional reviewers. If appropriate, paper authors will be contacted to request missing or additional data when necessary.

The full text of selected citations will be assessed in detail against the inclusion criteria by two or more independent reviewers. Reasons for exclusion of sources of evidence in the full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. The results of the search and study inclusion process will be reported in full in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Review (PRISMA-ScR) flow diagram.

### 2.1.4 - STEP 4 - DATA ANALYSIS.

The articles selected for full reading will be recorded following the table presented in Table 1. The data extracted will follow the variables presented with the purpose of systematizing and recording the studies selected in the scoping review.

Table 1. Systematization form for scoping review data.

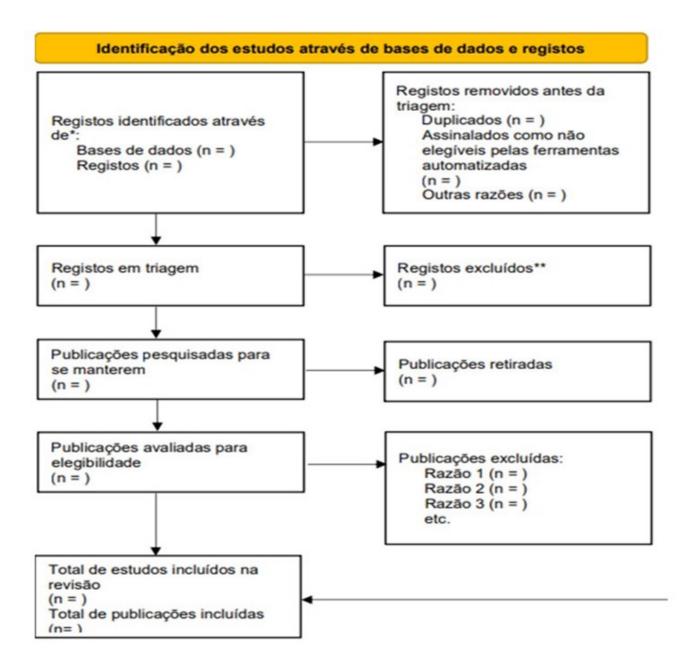
Variable	Variable Description
Kind of work	Article, dissertation or thesis
Year of Publication	Year the work was published
Country of origin	Country in which the work was carried out
Aim	General aim of the work
Search Type	How the research approached data analysis.
Population	Study population
Local	Study setting
Description of actions	Study context
Recommendations	Recommendations suggested by the author(s)

Source: It was created by the authors (2023).

The works selected at each stage of the JBI scope review systematization will be included in the PRISMA Flow Diagram manager, available at https://estech.shinyapps.io/prisma\_flowdiagram/,

which helps to organize and manage the selected references. At the end, the Flowchart (Image 2) will be used to systematize the searches.

Figure 2 - Scope review data systematization form based on the PRISMA Diagram, 2020.



Source: Portuguese version is available on: www.prisma-statement.org%2Fdocuments%2FPRIS-MA%25202020%2520flow%2520diagram%2520EUROPEAN%2520PORTUGUESE.pdf&v=\_6nsPQRZTj4 . Accessed on: January 20, 2024.

Data extraction will be supported by a basic form that will serve as a guide in order to organize bibliographic information, article characteristics and other data that contribute to knowledge of the nature and scope of nursing interventions focused on autonomy for daily activities of people with spinal cord injury in Primary Health Care

All selected works will be registered through a systematized and consolidated document of primary research data, in order to give greater visibility and clarity to the results found.

Table 2 – Systematized form for collecting data relating to the Scope Review

D	escriptors Used:						
Article title:							
Data base:							
	BIBLIOGRAPHIC	SPECIFICATION					
	Authors	Authors' surname.					
	Year	Year of publication.					
	Local	Location, country where the study was carried out.					
	Title	Original title of the publication.					
	Type of publication	Article, Dissertation or Thesis.					
	Journal	Name of the magazine.					
	Institution	Institutional affiliation of the author responsible for the publication.					
	CHARACTERISTICS OF THE STUDY	SPECIFICATION					
	Aim	To describe the main objective of the study.					
	Theme	To describe the topic of the study.					
	Types of services	To describe whether it was carried out in Primary Health Care.					
		Quantitative, qualitative or mixed method					
		Year of study					
	Method	Type of research: if it is evaluative research, normative evaluation, observational study, etc.					
oer:		Participants: person with physical disability or injuries that characterize it.					
Number:_		Focus of the study: rehabilitation, experiments, prototypes, etc.					
	Main results	To describe the results found in the work.					
	Recommendations	To describe the main recommendations of the study.					
	Limitations	To describe the limitations of the research.					
	Final considerations	To describe the main conclusion of the study.					
INCLUDED:		( ) YES ( ) NO					
R	eviewer's name:						

Source: It was created by the authors (2023).

This extraction form (Table 2) is presented as a preliminary version, which will be tested by reading 10% of the articles to validate the version presented. Therefore, adaptations to include or exclude data may occur in order to reach a final version. The collected data will be organized into individual forms for each study retrieved from the databases.

# 2.1.5 - STEP 5 - GROUPING, SYNTHESIS AND PRESENTATION OF DATA.

After compiling the information in step 4, an analysis of the synthesis of evidence recorded in the database will be carried out and the results will be presented using descriptive statistics. Stage 5 will be developed based on the recommendations of the international guide Preferred Reporting Items for Systematic and Meta-Analyses - Extension for Scoping Reviews (PRISMA-SrC)<sup>15</sup>. The evidence presented will directly answer the review objective and research question. Data will be presented graphically and information on data presentation/mapping techniques will be inserted, and a narrative summary will accompany the graphical results, describing how the results relate to the review objective and question.

# **RESULTS**

The results will be presented in a clear and concise way, a narrative summary will accompany the tabulated and/or diagrammed results, describing how they relate to the objectives and research question. Additionally, a data presentation table will be developed specifically for this mapping, although refinements may be made throughout the review process. The mapping process will shed light on nursing interventions that promote the autonomy of individuals with spinal cord injury in their daily activities. By identifying the gaps and limitations in the existing literature, it will help to generate a strong argument for the need to undertake further research in the field of Rehabilitation in Primary Health Care. This protocol aims to reinforce the need for new studies focusing on Rehabilitation in Primary Health Care.

### CONCLUSION

This Scope Review protocol will follow the 5 Scope Review steps recommended by JBI. The studies will be searched in previously listed databases, being analyzed and compiled in a systematized spreadsheet. The study will contribute with relevant subsidies to better guide nursing interventions that promote autonomy of individuals with spinal cord injury in their daily activities, strengthening and instrumentalizing rehabilitation assistance in Basic Health Care. Furthermore, using systematic

material that will address Rehabilitation Nursing interventions focused on the progressive functional autonomy of people with spinal cord injury to safely perform daily activities in the community, provided by nurses working in Primary Health Care teams.

# **BIBLIOGRAPHIC REFERENCES**

- 1. Gaspar R, Padula N, Freitas TB, de Oliveira JPJ, Torriani-Pasin C. Physical Exercise for Individuals With Spinal Cord Injury: Systematic Review Based on the International Classification of Functioning, Disability, and Health. Journal of Sport Rehabilitation. 2019 Jul;28(5):505–16.
- Correia IC, Seidl EMF. Percepção de adolescentes com lesão medular sobre autonomia. Revista Bioética. 2022 Sep;30(3):534–47.
- 3. Ramos RL, Machado WCA, Torres DA, Falcão AC de S, Velasque L de S, Figueiredo NMA de. Estudio de enfermería de las propriedades térmicas de hamaca para evitar úlceras por presión. Revista Cubana de Enfermería [Internet]. 2019 Feb 26 [cited 2023 Nov 17];34(4). Available from: http://www.revenfermeria.sld.cu/index.php/enf/article/view/1525/396
- 4. Silva, HF da. Habilidades nas transferências para pessoas com lesão medular: cuidados de reabilitação para autonomia nas atividades cotidianas. 2021. 200 f. Tese (Doutorado em Enfermagem e Biociências). Programa de Pós-graduação em Enfermagem e Biociências. Universidade Federal do Estado do Rio de Janeiro, Rio de Janeiro, 2021.
- 5. Machado WCA, Pinto ELG, Cruz VV, Figueiredo NMA de, Pinheiro APB, Xavier ASMS, et al. Cuidando de pessoa com paraparesia espástica: intervenções da enfermagem de reabilitação para atividades cotidianas. Research, Society and Development. 2020 Aug 20;9(9):e325996880.
- 6. Santos, C M F dos. Vivências do cuidador familiar da pessoa com lesão medular. Coimbra; s.n; abr. 2022. 114 p. tab, ilus.Tese em Português | BDENF - enfermagem (Brasil) | ID: biblio-1399921. Página: 1-127.
- 7. Milligan J, Burns S, Groah S, Howcroft J. A Primary Care Provider's Guide to Preventive Health After Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation. 2020 Oct 1;26(3):209–19.
- 8. Tholl AD, Nitschke RG, Viegas SM da F, Potrich T, Marques-Vieira C, Castro FFS, et al. STRENGHTS AND LIMITS IN THE DAILY LIFE OF THE ADHERENCE TO REHABILITATION OF PEOPLE WITH SPINAL CORD INJURY AND THEIR FAMILIES. Texto & Contexto Enfermagem [Internet]. 2020 Dec 1 [cited 2023 Nov 17];29. Available from: http://www.revenf.bvs.br/scielo.php?script=sci\_arttext&pid=S0104-07072020000100348&lng=pt&nrm=iso
- 9. Lee J, Varghese J, Brooks R, Turpen BJ. A Primary Care Provider's Guide to Accessibility After Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation. 2020 Mar;26(2):79–84.
- 10. Silva CS, Martins MMFPS, Pereira RSS, Pacheco MN, Carvalho AE, Machado WCA. Acessibilidade dos edifícios destinados à prática de desporto nas pessoas com deficiência intervenção dos/as enfermeiros/as especialistas em reabilitação. RPER. 2019; 2(2): 27-32. Disponível em: https://www.aper.pt/ficheiros/revista/RPERv2n2.pdf
- 11. Paula A, Hirakawa R. Os serviços de reabilitação no Brasil e sua relação com a comunidade: visão integrativa da literatura [Internet]. [cited 2023 Nov 17]. Available from: https://www.editorarealize.com.br/editora/anais/conbracis/2020/TRABALHO\_EV135\_MD1\_SA5\_ID441\_29062020134515.pdf

- 12. Machado WCA, Silva HF da, Almeida WG de, De Figueiredo NMA, Martins MM, Henriques FMD, et al. Autocuidado para pessoas com deficiência adquirida: reflexão sobre intervenções de enfermagem frente aos enfrentamentos da reabilitação. Enfermagem em Foco. 2020 May 25;10(5).
- 13. Joanna Briggs Institute (JBI). About JBI: Who Are We?2021.

  Adelaide: The University of Adelaide, 2021. Disponível em https://jbi.global/about-jbi. Acesso em 07 fev 2023.
- 14. Aromataris, E., Munn, Z (editors). JBI Manual for Evidence Synthesis. JBI, 2020.Disponível em: https://synthesismanual.jbi.global. https://doi.org/10.46658/JBIMES-20-01
- 15. Tricco, A. C. et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med, v.169, p. 467–473, 2018.

# **ETHICAL DISCLOSURES**

## Contribution of the author(s):

Conceptualization: ASMSX
Data treatment: ASMSX
Formal analysis: JSP
Methodology: WCAM

Project administration: WCAM

Resources: ASMSX, HSF Supervision: HSF, WCAM

Visualization: VVC

Original draft writing: WCAM, ASMSX, VVC,

Writing - review and editing: WCAM, ASMSX, JPS, RM.

All authors read and agreed to the published version of the manuscript. \\