

Nursing navigation in the care of patients with complex cardiovascular conditions: a scoping review protocol

Navegación de enfermería en el cuidado de pacientes con afecciones cardiovasculares complejas: protocolo de revisión del alcance

Navegação de enfermagem no cuidado a pacientes com condições cardiovasculares complexas: protocolo de revisão de escopo

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How to cite this article:

Souza JA, Guimarães TCF, Carvalho GM, Vieira MSL. Nursing navigation in the care of patients with complex cardiovascular conditions: a scoping review protocol. Glob Acad Nurs. 2026;7(Sup.1):e572. <https://dx.doi.org/10.5935/2675-5602.20200572>

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Submission: 05-20-2026

Approval: 06-28-2026

Abstract

The aim was to map the evidence regarding the role of nurses in the navigation of adult patients with complex cardiovascular conditions, identifying competencies, interventions, care strategies, reported outcomes, and knowledge gaps. This is a scoping review protocol structured according to the Joanna Briggs Institute's methodological guidelines and to be reported in accordance with PRISMA-ScR. The research question was formulated using the PCC acronym: Population (adult patients with complex cardiovascular conditions), Concept (patient navigation/nursing), and Context (cardiovascular care pathway). Studies in Portuguese, English, and Spanish will be included, sourced from the following databases: CINAHL, Scopus, PubMed/MEDLINE, Embase, Web of Science, Cochrane Library, LILACS, Google Scholar, and the Database of Theses and Dissertations. Selection will be performed by two independent reviewers using the Rayyan platform, and data will be extracted into a summary table designed for this study. The study aims to identify how nursing navigation has been applied to organize the cardiovascular care pathway, particularly for conditions such as heart failure and heart transplantation, and to inform the development of a nursing navigation model for high-complexity settings.

Descriptors: Patient Navigation; Patient Care Management; Cardiovascular Nursing; Heart Transplantation.

Resumen

El objetivo fue mapear la evidencia sobre el rol de las enfermeras en la navegación de pacientes adultos con afecciones cardiovasculares complejas, identificando competencias, intervenciones, estrategias de atención, resultados descritos y lagunas de conocimiento. Se estructuró un protocolo de revisión exploratoria de acuerdo con las directrices metodológicas del Instituto Joanna Briggs y se informó de acuerdo con PRISMA-ScR. La pregunta de investigación se formuló utilizando el acrónimo PCC: Población, pacientes adultos con afecciones cardiovasculares complejas; Concepto, navegación del paciente/enfermería; Contexto, vía de atención cardiovascular. Se incluirán estudios en portugués, inglés y español, ubicados en CINAHL, Scopus, PubMed/MEDLINE, Embase, Web of Science, Cochrane Library, LILACS, Google Scholar y Thesis and Dissertation Database. La selección será realizada por dos revisores independientes, con el apoyo de la plataforma Rayyan, y los datos se extraerán en una tabla sinóptica preparada para este estudio. El objetivo es identificar cómo se ha aplicado la orientación de enfermería en la organización de la vía de atención cardiovascular, especialmente en afecciones como la insuficiencia cardíaca y el trasplante de corazón, así como apoyar el desarrollo de un modelo de orientación de enfermería para contextos de alta complejidad.

Descriptores: Navegación de Pacientes; Manejo de Atención al Paciente; Enfermería Cardiovascular; Trasplante de Corazón.

Resumo

Objetivou-se mapear as evidências sobre a atuação do enfermeiro na navegação de pacientes adultos com condições cardiovasculares complexas, identificando competências, intervenções, estratégias assistenciais, resultados descritos e lacunas do conhecimento. Protocolo de revisão de escopo estruturado conforme as diretrizes metodológicas do Joanna Briggs Institute e a ser relatado segundo o PRISMA-ScR. A questão de pesquisa foi elaborada a partir do acrônimo PCC: População, pacientes adultos com condições cardiovasculares complexas; Conceito, navegação de pacientes/enfermagem; Contexto, linha de cuidado cardiovascular. Serão incluídos estudos em português, inglês e espanhol, localizados nas bases CINAHL, Scopus, PubMed/MEDLINE, Embase, Web of Science, Cochrane Library, LILACS, Google Acadêmico e Banco de Teses e Dissertações. A seleção será realizada por dois revisores independentes, com apoio da plataforma Rayyan, e os dados serão extraídos em quadro sinóptico elaborado para este estudo. Espera-se identificar como a navegação de enfermagem tem sido aplicada na organização do percurso assistencial cardiovascular, especialmente em condições como insuficiência cardíaca e transplante cardíaco, bem como subsidiar o desenvolvimento de um modelo de navegação de enfermagem para contextos de alta complexidade.

Descritores: Navegação de Pacientes; Administração dos Cuidados ao Paciente; Enfermagem Cardiovascular; Transplante de Coração.



Introduction

In the context of advanced heart failure, care requires rigorous monitoring, ongoing education, early recognition of signs of worsening, and longitudinal follow-up capable of fostering clinical stability and a better quality of life for chronic patients with high needs for clinical management. In cases where the disease progresses and advanced therapies, such as heart transplantation, are indicated, the care pathway becomes even more complex, encompassing stages such as timely assessment, listing for transplant, family coordination, clinical preparation, hospitalization, discharge, and long-term outpatient follow-up. This process requires integration among professionals, services, and care settings, as well as strategies that promote continuity of care, effective communication, and support for both the patient and the family¹.

The protocol acknowledges this complexity by positioning heart transplantation as the treatment of choice for patients with advanced heart failure refractory to medical therapy and by highlighting the need for effective coordination along the care pathway across healthcare levels, reinforcing the principle of comprehensive care, particularly within the Unified Health System (SUS)^{2,3}.

In this context, nursing navigation has been described as a strategy capable of strengthening care coordination, reducing access barriers, facilitating communication between users and teams, and promoting greater continuity of care, in addition to linking the family/caregiver with the health service¹.

By assuming a key role in patient monitoring, the nurse can contribute to organizing care pathways, coordinating the transition between inpatient and outpatient care, providing health education, strengthening self-care, and supporting decision-making throughout the therapeutic journey, while upholding the patient's autonomy and enhancing their health literacy³.

Although nurse navigation is increasingly recognized across various healthcare sectors, particularly in high-complexity settings, its application within the cardiovascular field remains insufficiently systematized. While a higher concentration of publications is observed in areas such as oncology, gaps persist in the care of patients with complex cardiovascular conditions, especially those with advanced heart failure or undergoing heart transplantation, regarding standardized competencies linked to adopted models, the specific skills required for navigating the care of patients with complex conditions, the interventions performed, and the outcomes associated with this practice^{2,4}.

Given this context, this study aims to map how nursing navigation has been described and applied in the care of patients with complex cardiovascular conditions, identifying concepts, practices, competencies, care strategies, and knowledge gaps. Synthesizing this evidence may help broaden the understanding of the nursing role in cardiovascular care coordination and provide a more robust foundation for developing navigation models applicable to the context of heart transplantation.

Methodology

This scoping review protocol was structured in accordance with the methodological guidelines of the Joanna Briggs Institute (JBI)⁵. The review will be conducted and reported in accordance with the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist⁶. The protocol was registered on the Open Science Framework (OSF) under DOI: 10.17605/OSF.IO/AB64Z. The initial OSF registration for this review focused on heart transplantation. However, during the methodological refinement of the protocol and the exploratory reading of the retrieved studies, it was observed that the literature on nursing navigation in the cardiovascular field remains nascent when restricted solely to heart transplantation; instead, it focuses more frequently on complex cardiovascular conditions, such as heart failure, care transitions, discharge coordination, and the reduction of readmissions²⁻⁴. The preliminary search strategy identified 433 records across the consulted sources, highlighting the need to broaden the target population to capture interventions, competencies, and outcomes associated with nursing navigation within complex cardiovascular care pathways, while retaining heart transplantation as a subgroup of interest. This decision also aligns with the purpose of a scoping review, which is suited to mapping emerging concepts, identifying the extent and nature of available evidence, and recognizing knowledge gaps in heterogeneous or less systematized areas^{5,6}. Thus, expanding the scope to include adult patients with complex cardiovascular conditions sought to ensure greater coherence among the research question, eligibility criteria, and the clinical-care phenomenon under investigation, while maintaining the scoping review methodological design.

Research Question

The research question was formulated based on the PCC acronym (Population, Concept, and Context): P = adult patients with complex cardiovascular conditions, specifically heart failure, advanced heart failure, heart transplant candidates, and heart transplant recipients; C = patient navigation/nursing navigation; C = cardiovascular care pathway. Thus, the following guiding question was developed: "How has nursing navigation been described and applied within the care pathway for patients with complex cardiovascular conditions?"

Eligibility Criteria

Studies addressing nursing navigation performed by nurses in the care of adult patients with complex cardiovascular conditions, specifically heart failure, advanced heart failure, heart transplant candidates, and heart transplant recipients, will be included. Studies describing interventions, programs, strategies, responsibilities, competencies, or outcomes related to the nursing role in organizing these patients' care pathways will be considered. Primary quantitative, qualitative, or mixed-methods studies, literature reviews, experience reports, dissertations, theses, and clinical guidelines will be accepted,



provided they are available in full text in Portuguese, English, or Spanish. Duplicate studies, publications focused exclusively on non-cardiovascular contexts, studies addressing navigation without identifiable nursing participation, works focusing solely on describing the patient journey without detailing the navigator's professional role, and studies targeting exclusively pediatric and neonatal populations will be excluded.

Information Sources and Search Strategy

The search strategy was conducted across the following electronic databases: CINAHL, Scopus, PubMed/MEDLINE, Embase, Web of Science, Cochrane Library, LILACS, Google Scholar, and the Brazilian Digital Library of Theses and Dissertations (BDTD). No time restrictions will be applied to study retrieval to enable a broader mapping of available evidence regarding nursing navigation in complex cardiovascular conditions, given the potential scarcity of specific publications in the

cardiovascular field. Studies published up to the date the search is conducted will be included.

After exporting the results retrieved from each database, the records will be consolidated in the Zotero bibliographic manager for identification and initial removal of duplicates. Subsequently, the records will be imported into the Rayyan platform, where a further check for duplicates will be conducted, alongside the screening process based on titles, abstracts, and full texts.

Descriptors from Medical Subject Headings (MeSH) and Health Sciences Descriptors (DeCS), specifically "Heart transplantation," "Patient Navigation," "Nursing Navigation," and "Transition to Adult Care", were used, along with free-text terms related to "Heart Transplantation," "Nurse Navigation," "Nursing Care Coordination," and "Case Management." These were combined using the Boolean operators "AND" and "OR," yielding the results detailed in the chart below, which outlines the search strategies employed.

Chart 1. Search strategies. Rio de Janeiro, RJ, Brazil, 2025

Database	Search date	Applied search strategy	Filters used	Number of results
CINAHL (EBSCO)	07/16/2025	((MH "'heart transplantation'") (MH "OR 'cardiac transplantation'") AND ('patient care'/exp+) OR "'continuity of care'" OR "'continuity of patient care'" OR "'patient navigation'") AND (MH "'transition to adult care'")	All adult Full text	17
SCOPUS	07/15/2025	(TITLE-ABS-KEY ('heart transplantation') AND TITLE-ABS-KEY ('patient care') AND TITLE-ABS-KEY ('transition to adult care'))		140
PubMed	07/15/2025	("Patient Navigation"[Mesh] OR "Patient Navigator [Title/abstract]" OR "Navigation nurse" [Title/Abstract]) AND ("Transitional Care"[Mesh] OR "Continuity of Patient Care"[Mesh] OR "Care Coordination" [Title/Abstract])	Adults: 19+ years	142
EMBASE	07/15/2025	('heart transplantation'/exp OR 'cardiac transplantation') AND ('patient care'/exp OR 'continuity of care' OR 'continuity of patient care' OR 'patient navigation') AND 'transition to adult care'/exp	Adult: 18-64 years	30
Web of Science	07/16/2025	("Patient Navigation" OR "Patient Navigator [Title/abstract]" OR "Navigation nurse") AND ("Transitional Care" OR "Continuity of Patient Care" OR "Care Coordination [Title]")		31
Cochrane Library	07/16/2025	([mh "Patient Navigation"] OR "Patient Navigator [Title/abstract]" OR "Navigation nurse":ti,ab) AND ([mh "Transitional Care"] OR [mh "Continuity of Patient Care"] OR [mh ^"Care Coordination [Title"]])		0
LILACS	07/16/2025	("navegação de pacientes" OR "navegação em saúde") AND (enfermagem OR enfermeiro)		17
BDTD	07/16/2025	"(Todos os campos: "navegação de pacientes" E Todos os campos: enfermagem)"		7
Google Scholar	07/16/2025	"nurse navigator" OR "patient navigation" AND "heart transplant" AND "patient care" AND "adult" AND "nursing"		49
Total studies identified				433
Languages: Portuguese, English, and Spanish				

Study Selection Process

The study selection process will be conducted in two sequential stages by two independent, trained reviewers using the Rayyan QCRI® platform, which assists with organization, screening, and decision-making during systematic and scoping reviews. Before this, search strategy

results will be imported into the Zotero platform to organize the data and remove duplicates. In the first stage, the titles and abstracts of studies identified in the databases will be screened to assess initial eligibility based on pre-defined inclusion and exclusion criteria. Potentially relevant studies will be selected for the second stage. In the second stage,



eligible articles will undergo full-text review to confirm their inclusion in the review. Throughout this process, reasons for excluding studies will be recorded in detail, ensuring the transparency and reproducibility of the selection process.

Any disagreements between reviewers will be resolved by consensus and, when necessary, by a third, equally trained reviewer. The study selection process will be presented via a flowchart in accordance with PRISMA-ScR recommendations.

Data Extraction Process from Selected Studies

Data extraction will be performed using a structured Microsoft Excel® spreadsheet, designed for this study based on Joanna Briggs Institute recommendations for scoping reviews. A summary matrix will be used to standardize data collection and facilitate comparison across

studies. Analysis variables will include study identification, methodological characteristics, population, care setting, the definition of navigation adopted, the professional responsible for navigation, interventions performed, outcomes assessed, key results, barriers, facilitators, elements applicable to the development of the navigation model, and gaps identified by the authors. The variable "level of evidence" will also be included, classified according to the methodology adopted in each selected study, using JBI levels of evidence as a reference. As this is a scoping review, this classification will not serve as an exclusion criterion but rather to characterize the body of evidence and foster discussion of the findings. The instrument may be adjusted during the process, if necessary, to better capture information relevant to the review's objective.

Chart 2. Summary of analysis variables. Rio de Janeiro, RJ, Brazil, 2026

Analysis variable	Operational description	Purpose of the review
Study identification	Author(s), year of publication, title, journal or source, country of origin, and language.	Characterize the included scientific literature.
Study objective	General objective or research question presented by the authors.	Identify the study's purpose and its relationship to nursing navigation.
Design/methodology	Type of study, methodological approach, and method employed.	Describe the methodological nature of the mapped evidence.
Level of evidence	Classification based on the level of evidence corresponding to the study design/methodology, according to JBI guidelines.	Qualify the body of evidence and support critical discussion.
Population/cardiovascular condition	Participant profile and clinical condition addressed, such as heart failure, advanced heart failure, transplant candidacy, or heart transplantation.	Assess the applicability of the evidence to complex cardiovascular conditions.
Care setting	Care setting: hospital, outpatient, primary care, discharge transition, heart failure program, transplantation, or longitudinal follow-up.	Map the points along the care pathway where navigation is applied.
Navigation concept adopted	Definition, framework, or description of navigation presented in the study.	Identify convergences, conceptual variations, and terminological gaps.
Professional responsible for navigation	Identification of the nurse navigator, supervising nurse, navigation team, or other involved professional.	Define the role of nursing in care coordination.
Interventions/activities performed	Actions described, such as health education, discharge coordination, telephone follow-up, barrier identification, network coordination, case management, and clinical monitoring.	Recognize competencies and practices associated with nursing navigation.
Outcomes and main results	Clinical, care-related, or organizational indicators evaluated, such as readmission, adherence, continuity of care, access, satisfaction, self-care, and patient safety.	Relate navigation to the results described in the literature.
Barriers and facilitators	Factors hindering or facilitating the implementation of navigation.	Inform recommendations for implementation in health services.
Elements for the navigation model	Components, workflows, competencies, tools, or strategies potentially incorporable into the proposed model.	Support the development of a cardiovascular nursing navigation model.
Gaps and authors' recommendations	Limitations, research needs, and recommendations identified in the studies.	Identify priorities for future studies and model validation.

Summary of Data

The extracted data will be analyzed using a descriptive approach and thematic analysis, as recommended for scoping reviews. Initially, a descriptive analysis of the included studies will be conducted, considering variables such as year of publication, country of origin, study type, and care setting, thereby characterizing the general landscape of scientific literature on the topic.

Subsequently, a thematic analysis of the findings will be conducted, involving the identification, grouping, and categorization of elements related to nursing navigation in complex cardiovascular conditions, specifically heart failure, advanced heart failure, and heart transplantation. The data

will be organized into thematic axes, and the synthesis will be presented through tables, charts, a flowchart, and a narrative description, enabling a structured visualization of the evidence and the identification of knowledge gaps.

Expected Results

This scoping review is expected to confirm the hypothesis that nursing navigation in the cardiovascular field has been described primarily in programs focused on heart failure, transition of care, coordination of hospital discharge, and post-discharge follow-up, with less systematization in highly specific scenarios such as heart transplantation²⁻⁴.



It is also expected that the interventions attributed to the nurse navigator will be found to include health education, identification of barriers to care, coordination between services, communication with patients and their families, longitudinal follow-up, case management, self-care support, and monitoring for signs of clinical deterioration, actions consistent with the definition of patient navigation and the nurse navigator's role in care management^{1,2,4,8}. Another hypothesis is that the outcomes most frequently associated with navigation relate to continuity of care, reduced readmissions, improved access, enhanced hospital-

to-outpatient transitions, strengthened self-care, and greater patient safety; however, heterogeneity is expected regarding study designs, the indicators evaluated, and the levels of evidence available^{1-4,7}. Thus, the findings will support the development of a structured nursing navigation model for patients with complex cardiovascular conditions, guided by competencies, critical points along the care pathway, nurse navigator interventions, and expected outcomes, thereby contributing to the enhancement of clinical practice and the strengthening of nursing roles in high-complexity settings.

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