

SCOPING REVIEW ARTICLE

Decision-Making Processes in Nursing Management: A Scoping Review

*Processos de Tomada de decisão dos Enfermeiros Gestores: Scoping Review**Procesos de Toma de Decisiones de los Enfermeros Gestores: Revisión de Alcance*Tiago Rafael Alves^{1,2} <https://orcid.org/0000-0002-1347-2977>Isabel Maria Batista de Araújo² <https://orcid.org/0000-0001-5143-4237>Maria Manuela Ferreira Pereira da Silva Martins¹ <https://orcid.org/0000-0003-1527-9940>

¹ University of Porto, School of Medicine and Biomedical Sciences (ICBAS), Porto, Portugal

² Artificial Intelligence and Health Research Unit (IA&Saúde), Instituto Politécnico de Saúde do Norte (CESPU – CRL), Vila Nova de Famalicão, Portugal

Abstract

Introduction: Nurse managers' decision-making is central to quality of care and organizational efficiency.

Objective: To map nurse managers' decision-making processes, identifying the types of decisions, the tools used, and the influencing factors.

Methodology: A scoping review was conducted using the Joanna Briggs Institute methodology. The review included primary studies and reviews published between 2018 and 2023 in Portuguese, English, or Spanish. The search covered 14 databases and gray literature. Three reviewers carried out study selection and data extraction.

Results: A total of 27 studies were included, primarily from hospital settings. The most frequent decisions involved the allocation of human and material resources, quality management, and strategic planning. Decision-making was predominantly quasi-rational. Influencing factors included digital literacy, institutional support, and workplace conditions. Although multiple decision-support tools were identified, the adoption of analytical and digital technologies was limited.

Conclusion: This scoping review mapped and described the decision-making processes, influencing factors, and tools used by nurse managers and identified gaps in the available evidence.

Keywords: decision making; nurse administrators

Resumo

Introdução: A tomada de decisão dos enfermeiros gestores é central para a qualidade dos cuidados e eficiência organizacional.

Objetivo: Mapear os processos de tomada de decisão, identificando os tipos de decisão, as ferramentas utilizadas e os fatores influentes.

Metodologia: *Scoping review* segundo a metodologia do Joanna Briggs Institute. Foram incluídos estudos primários e revisões, entre 2018 e 2023, em português, inglês ou espanhol. A pesquisa abrangeu 14 bases de dados e literatura cinzenta. A seleção e extração foram realizadas por três revisores.

Resultados: Foram incluídos 27 estudos, maioritariamente do contexto hospitalar. As decisões mais frequentes dizem respeito à alocação de recursos humanos e materiais, à gestão da qualidade e ao planeamento estratégico. A tomada de decisão mostrou-se predominantemente *quasi-racional*. Destacam-se como fatores influentes a literacia digital, o suporte institucional e as condições laborais. Foram identificadas múltiplas ferramentas de apoio, embora com limitada adoção de tecnologias analíticas e digitais.

Conclusão: Esta *scoping review* descreveu processos, fatores e ferramentas da tomada de decisão dos enfermeiros gestores e identificou lacunas na evidência.

Palavras-chave: tomada de decisões; enfermeiros administradores

Resumen

Introducción: La toma de decisiones de los enfermeros gestores es fundamental para la calidad de los cuidados y la eficiencia organizativa.

Objetivo: Mapear los procesos de toma de decisiones, identificando los tipos de decisión, las herramientas utilizadas y los factores influentes.

Metodología: Revisión de alcance según la metodología del Instituto Joanna Briggs. Se incluyeron estudios primarios y revisiones, entre 2018 y 2023, en portugués, inglés o español. La investigación abarcó 14 bases de datos y literatura gris. La selección y extracción fueron realizadas por tres revisores.

Resultados: Se incluyeron 27 estudios, la mayoría de ellos en el contexto hospitalario. Las decisiones más frecuentes se refieren a la asignación de recursos humanos y materiales, la gestión de la calidad y la planificación estratégica. La toma de decisiones resultó ser predominantemente cuasiracional. Destacan como factores influentes la alfabetización digital, el apoyo institucional y las condiciones laborales. Se identificaron múltiples herramientas de apoyo, aunque con una adopción limitada de tecnologías analíticas y digitales.

Conclusión: Esta revisión de alcance describió los procesos, los factores y las herramientas de la toma de decisiones de los enfermeros gestores e identificó lagunas en la evidencia.

Palabras clave: toma de decisiones; enfermeras administradoras

Corresponding author

Tiago Rafael Alves

E-mail: tiago.alves@ipsn.cepsu.pt

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Introduction

Decision-making in nursing management is essential to ensuring organizational efficiency and the quality of care. Every day, nurse managers (NMs) make decisions that vary in complexity and urgency. These decisions encompass areas such as ethical and legal professional practice, quality and safety management, change management, organizational planning, and evidence-based practice (Ordem dos Enfermeiros, 2018).

Such decisions require the integration of objective data and subjective elements, including professional experience and contextual conditions (Ejimabo, 2015). These often occur in high-pressure, conflict-prone environments and have a direct impact on patients, families, and healthcare professionals.

Preliminary research did not identify any scoping reviews that map the processes and factors influencing NMs' decision-making in recent years. Therefore, this review is distinctive in synthesizing the available evidence regarding the types of decisions made by NMs, the tools used to support decision-making, and the main challenges encountered in this process. Using a scoping review methodology enables the mapping of existing knowledge on this topic and the identification of gaps that warrant further investigation.

Guided by these premises, this scoping review addresses the following research question: What processes and factors influence NMs' decision-making?

The aim of this review is to map NMs' decision-making processes, identify the most frequent types of decisions and tools used, and determine the factors that influence this process across diverse healthcare contexts.

Methodology

This scoping review was conducted in accordance with the Joanna Briggs Institute (JBI) methodology and reported following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines. This approach enables the synthesis of existing evidence to map knowledge about a concept of interest (Tricco et al., 2018). The protocol for this review was registered and published on the Open Science Framework platform (DOI: 10.17605/OSF.IO/

TR37H), ensuring transparency and methodological rigor throughout all stages of the process.

Eligibility criteria

The eligibility criteria were established using the PCC mnemonic (Population, Concept, and Context). Studies addressing NMs' (Population) decision-making, identifying the processes and factors influencing decision-making (Concept), and conducted in any healthcare management context (Context) were included. Quantitative, qualitative, and mixed-methods primary studies, as well as systematic reviews and gray literature such as theses and dissertations, were considered. The inclusion period spanned from 2018 to 2023 and encompassed publications in Portuguese, English, and Spanish. Studies that did not specifically address NMs, along with opinion papers, editorials, non-systematic reviews, and publications in other languages, were excluded.

Search strategy and information sources

A preliminary exploratory search was conducted in the PubMed and CINAHL databases using the terms "nurse managers" and "decision-making" to identify relevant keywords and descriptors. In the second phase, a systematic search was carried out across the electronic databases Ovid Platform, PubMed, SciELO (Scientific Electronic Library Online), Scopus, Web of Science, CINAHL Complete, and Nursing & Allied Health Collection: Comprehensive, the Cochrane Database of Systematic Reviews, Library, Information Science & Technology Abstracts, PsycInfo, and MedicLatina database. Sources of unpublished studies and gray literature were searched in RCAAP, the Capes Thesis and Dissertation Catalog, OpenGrey, Google Scholar, the National Grey Literature Collection, and the Open Access Theses and Dissertations databases, as well as in clinical trial registries (ClinicalTrials.gov and the WHO International Clinical Trials Registry Platform). Although OpenGrey was discontinued in 2021, it was consulted because the inclusion period for this review covered publications from 2018 onwards. Table 1 presents the search strategy applied in the MEDLINE database via PubMed. The search strategies were developed with the support of a specialized librarian and adapted for each database to ensure comprehensive identification of relevant studies. Additionally, the reference lists of the included studies were manually reviewed to identify further relevant publications.

Table 1*Search strategy – MEDLINE via PubMed - date: 29/01/2024*

#	Search strategy	Results
#1	"Nurse Administrators"[MeSH Terms]	14,237
#2	"nurse executive*"	1,488
#3	"nurs* leader*"	7,414
#4	"nurse manager*"	5,039
#5	"charge nurse*"	715
#6	"head nurse*"	1,602
#7	"Decision making"[MeSH Terms]	238,423
#8	1 OR 2 OR 3 OR 4 OR 5 OR 6	25,309
#9	7 AND 8	1,061
#10	Time Range: 2018-2023	95

Selection process

The study selection process was conducted in three stages. First, the identified studies were imported into the Rayyan software, and duplicates were automatically removed. Then, three independent reviewers screened the titles and abstracts based on the predefined eligibility criteria. Finally, the selected studies underwent a comprehensive full-text evaluation, and only those that met the established criteria were included. Any disagreements were resolved through consensus among the reviewers.

Data extraction

A data extraction form in Microsoft Excel, adapted from the JBI methodology, was used to ensure consistency in data collection. Information relevant to the research question was extracted regarding the population, concept, context, study design, and main findings. Three independent reviewers performed the data extraction, and discrepancies were resolved by consensus.

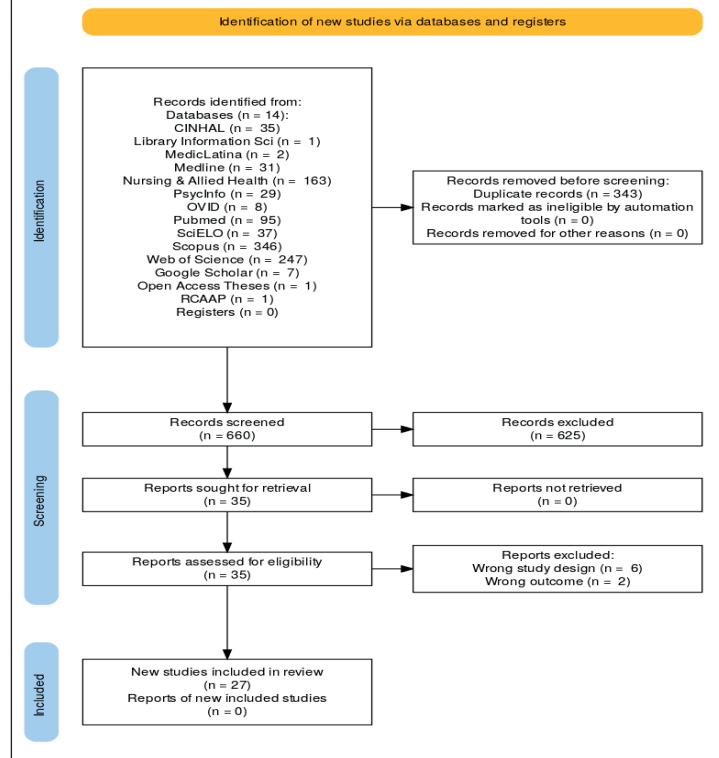
Data synthesis

In accordance with JBI recommendations for scoping reviews, data synthesis was conducted using a narrative

approach. The results were organized into thematic categories aligned with the research question. The categorization was guided by the competency framework of the Portuguese Nursing Professional Association (Ordem dos Enfermeiros, 2018) to structure the types of decisions, and by Cognitive Continuum Theory (Dhimi & Thomson, 2012) to outline the decision-making process. Three reviewers conducted the data extraction and categorization manually and independently, resolving discrepancies by consensus.

Results

A total of 1,003 records were identified, of which 343 were removed as duplicates. After screening titles and abstracts, 35 articles were retained for full-text evaluation. Ultimately, 27 studies met the eligibility criteria and were included in the review. Figure 1 presents the flow diagram of the study selection and inclusion process in accordance with the PRISMA-ScR guidelines (Tricco et al., 2018).

Figure 1*PRISMA flow diagram for study selection process*

The included studies were analyzed according to their methodological characteristics, types of decisions, decision-making processes, support tools, factors influencing NMs' decision-making and main challenges.

Study characteristics

The included studies originated from diverse geographical regions, with Europe (n=11; 41%) and North America

(n=7; 26%) representing the largest proportions, followed by Oceania (n=4; 15%), Asia (n=3; 11%), and South America (n=2; 7%). In terms of methodology, qualitative studies predominated (n=7; 26%), followed by cross-sectional studies (n=5; 19%) and case studies (n=3; 11%). Regarding study settings, most were conducted in hospital environments, whereas only one study explored NMs' decision-making within primary health care (Table 2).

Table 2

Identification of included studies

Nº	Estudo	País	Desenho Estudo	Contexto
1	Aitamaa, E., Suhonen, R., Iltanen, S., Puukka, P., & Leino-Kilpi, H. (2021). Ethical problems in nursing management: frequency and difficulty of the problems. <i>Health Care Management Review</i> , 46(1), 25-34. https://doi.org/https://doi.org/10.1097/HMR.0000000000000236	Finlândia	Estudo Transversal	Hospital
2	Aitamaa, E., Suhonen, R., Puukka, P., & Leino-Kilpi, H. (2019). Ethical problems in nursing management—a cross-sectional survey about solving problems. <i>BMC Health Services Research</i> , 19, 1-11. https://doi.org/10.1186/s12913-019-4245-4	Finlândia	Estudo Transversal	Hospital
3	Bail, K., Merrick, E., Fox, A., Gibson, J., Hind, A., Moss, C., Strickland, K., & Redley, B. (2021). Ten statements to support nurse leaders implement e-health tools for nursing work in hospitals: A modified Delphi study. <i>Journal of clinical nursing</i> , 30(9-10), 1442-1454. https://doi.org/https://doi.org/10.1111/jocn.15695	Austrália	Estudo Delphi modificado	Hospital

4	Benjamin, E. (2022). Understanding the work and decision-making strategies of bed management nurses: a systematic review. <i>Nursing Management</i> , 29(2). https://doi.org/https://doi.org/10.7748/nm.2021.e2016	EUA	Revisão Sistemática	Hospital
5	Birkholz, L., Kutschar, P., Kundt, F. S., & Beil-Hildebrand, M. (2022). Ethical decision-making confidence scale for nurse leaders: Psychometric evaluation. <i>Nursing ethics</i> , 29(4), 988-1002. https://doi.org/https://doi.org/10.1177/09697330211065847	USA Alemanha Áustria Suíça	Estudo Transversal	Hospital
6	Chen, Y., Moreira, P., Liu, W. w., Monachino, M., Nguyen, T. L. H., & Wang, A. (2022). Is there a gap between artificial intelligence applications and priorities in health care and nursing management? <i>Journal of nursing management</i> , 30(8), 3736-3742. https://doi.org/https://doi.org/10.1111/jonm.13851	China Portugal Vietnam	Revisão da Literatura	Sistemas de Cuidados de Saúde
7	Chisengantambu, C., Robinson, G. M., & Evans, N. (2018). Nurse managers and the sandwich support model. <i>Journal of nursing management</i> , 26(2), 192-199. https://doi.org/https://doi.org/10.1111/jonm.12534	Austrália	Estudo Fenomenológico Qualitativo	Hospital
8	Chisengantambu-Winters, C., Robinson, G. M., & Evans, N. (2020). Developing a decision-making dependency (DMD) model for nurse managers. <i>Heliyon</i> , 6(1). https://doi.org/https://doi.org/10.1016/j.heliyon.2019.e03128	Austrália	Estudo Fenomenológico Qualitativo	Hospital e Cuidados de Saúde Primários
9	Fallman, S. L., Jutengren, G., & Dellve, L. (2019). The impact of restricted decision-making autonomy on health care managers' health and work performance. <i>Journal of nursing management</i> , 27(4), 706-714. https://doi.org/https://doi.org/10.1111/jonm.12741	Suécia	Estudo Longitudinal Prospetivo	Hospital
10	Gradišar, M., Turk, T., Hajdinjak, J. P., & Tomat, L. (2023). Interactive nurse scheduling. CIN: Computers, Informatics, <i>Nursing</i> , 41(3), 172-182. https://doi.org/https://doi.org/10.1097/CIN.0000000000000941	Eslovénia	Estudo de Caso	Hospital
11	Griner, T. E., Thompson, M., High, H., & Buckles, J. (2020). Artificial intelligence forecasting census and supporting early decisions. <i>Nursing Administration Quarterly</i> , 44(4), 316-328.	EUA	Estudo de Caso	Hospital
12	Hasanpoor, E., Siraneh Belete, Y., Janati, A., Hajebrahimi, S., & Haghgoshayie, E. (2019). Nursing managers' perspectives on the facilitators and barriers to implementation of evidence-based management. <i>Worldviews on Evidence-Based Nursing</i> , 16(4), 255-262. https://doi.org/https://doi.org/10.1111/wvn.12372	Irão	Estudo Transversal	Hospital
13	Islam, T., Hutchinson, A. M., & Bucknall, T. K. (2018). Nurse manager risk information management for decision-making: A qualitative analysis. <i>Collegian</i> , 25(4), 401-407. https://doi.org/10.1016/j.collegn.2017.10.009	Austrália	Estudo Qualitativo Exploratório	Hospital
14	Lose, D. T. (2019). Nurse Leaders Decision-Making to Adopt an Online Innovation:: A Decision Support Tool. <i>Nurse Leader</i> , 17(6), 509-515. https://doi.org/https://doi.org/10.1016/j.mnl.2019.09.008	USA	Estudo de Caso	Hospital
15	McCargo, T. E. (2022). Decision Making in Nurse Leaders During COVID-19: Allocation of Scarce Resources [Dissertation for the Degree of Doctor, The Chicago School of Professional Psychology]. Chicago.	EUA	Estudo Qualitativo	Hospital
16	Meyers, E. L. (2019). Charge Nurse Expertise: Implications for Decision Support of the Nurse-Patient Assignment Process [Dissertation for the Degree of Doctor, University of Minnesota]. Minnesota.	EUA	Estudo de Métodos Mistos	Hospital
17	Nantschev, R., & Ammenwerth, E. (2022). Challenges using electronic nursing routine data for outcome analyses: A mixed methods study. <i>Int J Nurs Sci</i> , 9(1), 92-99. https://doi.org/https://doi.org/10.1016/j.ijnss.2021.11.003	Áustria	Estudo de Métodos Mistos	Hospital

18	Padley, W., Long, J., Welyczko, N., Dowsett, D., Salter, N., Ford, K., Greenway, C., & Brown, J. (2019). Development of a tool to support managers in planning and evaluating staff training. <i>Nursing Standard</i> , 34(9), 36-41. https://doi.org/https://doi.org/10.7748/ns.2019.e10991	Reino Unido	Estudo Qualitativo	Hospital
19	Peltonen, L.-M., Junttila, K., & Salanterä, S. (2018). Nursing leaders' satisfaction with information systems in the day-to-day operations management in hospital units. In <i>Nursing Informatics 2018. IOS Press</i> (pp. 203-207). https://doi.org/https://doi.org/10.3233/978-1-61499-872-3-203	Finlândia	Estudo Transversal	Hospital
20	Peltonen, L. M., Lundgrén-Laine, H., Siirala, E., Löyttyniemi, E., Aantaa, R., & Salanterä, S. (2018). Assessing managerial information needs: modification and evaluation of the hospital shift Leaders' information needs questionnaire. <i>Journal of nursing management</i> , 26(2), 108-119. https://doi.org/https://doi.org/10.1111/jonm.12515	Finlândia	Estudo Transversal Nacional	Hospital
21	Peltonen, L. M., Siirala, E., Junttila, K., Lundgrén-Laine, H., Vahlberg, T., Löyttyniemi, E., Aantaa, R., & Salanterä, S. (2019). Information needs in day-to-day operations management in hospital units: A cross-sectional national survey. <i>Journal of nursing management</i> , 27(2), 233-244. https://doi.org/https://doi.org/10.1111/jonm.12700	Finlândia	Estudo Quantitativo	Hospital
22	Qureshi, S. M., Purdy, N., Mohani, A., & Neumann, W. P. (2019). Predicting the effect of nurse-patient ratio on nurse workload and care quality using discrete event simulation. <i>Journal of nursing management</i> , 27(5), 971-980. https://doi.org/https://doi.org/10.1111/jonm.12757	Canadá	Estudo Quantitativo	Hospital
23	Remus, S., & Donelle, L. (2019). Big data: why should Canadian nurse leaders care? <i>Nursing Leadership</i> (1910-622X), 32(2).	Canadá	Revisão da Literatura	Sistemas de Cuidados de Saúde
24	Roshanzadeh, M., Vanaki, Z., & Sadooghiasl, A. (2020). Sensitivity in ethical decision-making: The experiences of nurse managers. <i>Nursing ethics</i> , 27(5), 1174-1186. https://doi.org/https://doi.org/10.1177/0969733019864146	Irão	Estudo Qualitativo	Hospital
25	Silva, A. d., Gurgel Júnior, G. D., Falk, J. A., & Pedroso, M. d. M. (2018). Maternal and child patient safety: a multiple criteria analysis of the decisionmaking preferences of nurse managers. <i>Revista Brasileira de Saúde Materno Infantil</i> , 18, 577-591. https://doi.org/https://doi.org/10.1590/1806-93042018000300008	Brasil	Estudo Quantitativo	Hospital
26	Teixeira de Carvalho, M. L., dos Anjos Marreiro, L. A., Alves de Carvalho, G. D., Estrela de Albuquerque, S. G., & Ribeiro dos Santos, S. (2021). Information And Communication Technology: Impacts on Nursing Management. <i>Journal of Nursing UFPE/Revista de Enfermagem UFPE</i> , 158. https://doi.org/https://doi.org/10.5205/1981-8963.2021.246304	Brasil	Estudo Qualitativo Descritivo	Hospital
27	van der Mark, C. J., Kraan, J., Hendriks, P. H., Vermeulen, H., & van Oostveen, C. J. (2022). Defining adequacy of staffing in general hospital wards: a Delphi study. <i>Bmj Open</i> , 12(8), e058403. https://doi.org/https://doi.org/10.1136/bmjopen-2021-058403	Países Baixos	Estudo de Delphi	Hospital

Synthesis of extracted data

The data extracted from the included studies were organized into thematic categories to identify patterns and

variations in NMs' decision-making. Table 3 provides a summary of the main findings from each study.

Table 3*Summary of extracted data from included studies*

<i>Theme</i>	<i>Categories</i>	<i>Description</i>	<i>Studies</i>
Types of decision	Professional, ethical, and legal practice	Ethical dilemmas related to care, human resource management, and organizational issues.	2,5,24
	Quality and safety management	Patient safety; risk management; management of human resources to maintain quality of care.	1, 2, 3, 4, 6, 7, 8, 9, 10, 13, 15, 16, 17, 19, 20, 21, 22, 25, 27
	Change management, professional and organizational development	Strategic planning of health tools; operational management and organizational priorities; selection and evaluation of nurses' training; optimization of workflows and resources.	7, 18
	Planning, organization, leadership, and control	Patient and resource management: patient assignment, setting priorities, bed and patient flow optimization; human resource management: shift assignment, work planning and distribution; resource allocation: PPE, ventilators, and scarce resources; operational and strategic decisions: care coordination, logistics, and financial responsibility.	1, 3, 4, 7, 8, 9, 10, 11, 13, 14, 16, 19, 20, 21, 26
	Evidence-based practice and achieving health outcomes	Decision-making based on evidence to optimize care, resources, and human resource management; use of nursing data for outcome analysis and continuous improvement; strategic health decisions supported by large data volumes.	6,12,17,23
Decision-making process	Intuitive decisions	Decisions based on intuition and subjective perceptions.	14
	Analytical decisions	Simulations to predict the impact of decisions on workload and quality of care; multicriteria methods to structure and quantify decision preferences.	6, 14, 22, 25
	Quasi-rational decisions	Integrates data, evidence, and structured models with clinical experience, intuition, and professional judgment, influenced by the organizational context, team communication, and quality of available information.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 26, 27
Support tools	Knowledge- and evidence-based tools	Best practice guidelines, national and institutional directives, protocols, codes of ethics, laws and regulations, assessment tools (such as questionnaires and Delphi), ethical decision models, risk classification systems, and standardized nursing terminology.	2, 3, 5, 8, 12, 18
	Collaborative and participatory tools	Multidisciplinary committees, consultations with experts and colleagues, governance and quality meetings, partnerships with universities and suppliers, user and consumer feedback, as well as ongoing support through supervision and mentoring.	1, 7, 15, 24
	Technological and digital tools	Hospital and clinical information systems, electronic health records, dashboards, bed management software, machine learning platforms, predictive models, simulation, big data, and electronic reports.	4, 6, 10, 11, 13, 16, 19, 20, 21, 22, 23
	Administrative and operational management tools	Lean Management models, assignment matrices, hospital indicators, material requisition and management systems, administrative reports, epidemiological data, and manual analyses (such as Excel).	9, 17, 26
	Analytical and decision-support tools	Sensitivity analysis, discrete event simulation, forecasting models, time study methods, and outcome optimization techniques.	14, 25, 27

Internal factors	Individual characteristics of nurse managers	Values, personal beliefs, and job satisfaction, experience and confidence in the role, leadership ability, multiplicity of roles, autonomy, and ethical commitment.	1, 2, 7, 9, 13, 24
	Education, knowledge, and professional experience	Educational level, professional and managerial experience, digital skills, knowledge of health economics, and team adaptability to technologies.	3, 5, 6, 7, 11, 13, 16, 17, 18, 19, 20, 21, 23, 26, 27
	Workload and working conditions	Work overload, team fatigue, uneven work distribution, lack of autonomy, stress from emotional pressure and team management, administrative demands, and student supervision.	6, 7, 9, 10, 13, 16, 17, 19, 22, 26, 27
External factors	Infrastructure, Technology, and Information Systems	Lack of system interoperability, inadequate infrastructure, low technology adoption, insufficient investment in technology, and limited integration of information systems.	13, 17, 19, 21, 23, 26
	Policies, Regulations, and Institutional Management	Institutional policies, labor and safety regulations, centralized management, regulatory standards, and hospital guidelines; pressure for efficiency, budget constraints, and hiring and funding policies.	1, 2, 3, 8, 9, 12, 15, 16, 18, 20, 22, 23, 24, 25
	Organizational Culture and Institutional Support	Organizational culture, support from senior management, lack of organizational feedback, and team expectations.	1, 5, 9, 15
Main challenges	Resource and workload management	Resource shortages, team overload, pressure for efficiency, lack of decision-support tools, and need for quick decisions.	1, 2, 7, 8, 12, 15, 16, 20, 22, 27
	Ethical difficulties and value conflicts	Moral distress, administrative pressures that contradict personal values, lack of support and guidance to deal with ethical dilemmas, and conflicts between professional ethics and institutional orders.	1, 2, 5, 24
	Technology and information systems	Lack of system integration and interoperability, poor data quality and organization, and difficulty accessing real-time information.	3, 13, 17, 19, 20, 21, 22, 23, 27
	Resistance to change and integration of new tools	Professionals' resistance to loss of autonomy, low adoption of decision-support systems, and misalignment between technological solutions and nursing management priorities.	3, 6, 11, 14, 26
	Team communication and coordination	Fragmented communication between sectors and difficulty in coordination among professionals.	11, 12, 15, 16, 19, 25

Discussion

This scoping review mapped the processes and factors influencing NMs' decision-making. The findings revealed that NMs predominantly engage in quasi-rational decision-making, in which clinical experience, available data, and organizational context dynamically converge. A key contribution of this review is the systematization of the most common types of decisions, which primarily involve human and material resource management, patient allocation, and care flow optimization. The results highlight the predominance of operational decisions as a significant challenge for NMs, particularly in contexts of high organizational pressure (Fallman, Jutengren, & Dellve, 2019; Peltonen et al., 2019).

Both contextual and individual factors exert a strong influence on decision-making, including digital literacy, professional experience, and institutional support. These factors underscore the importance of leadership skills, organizational culture, and strategic alignment with health policies in fostering effective decision-making (Aitamäa et al., 2021; Islam, Hutchinson, & Bucknall, 2018). The frequent occurrence of ethical dilemmas and institutional pressures suggests that NMs often work in morally ambiguous environments, reinforcing the need for ethical decision-support tools (Birkholz et al., 2022; Roshanzadeh, Vanaki, & Sadooghiasl, 2020). Regarding decision-support tools, the diversity identified—ranging from digital systems to institutional protocols and collaborative models—reflects a hybrid scenario

where technology coexists with traditional practices. However, the adoption of digital and analytical tools is constrained by significant challenges, including interoperability issues, resistance to change, and limited digital literacy (Chen et al., 2022; Remus & Donelle, 2019). Despite the methodological and geographical diversity of the included studies, most were conducted in hospital settings, with limited representation of primary health care, which restricts the generalization of the findings to other contexts.

This review presents some limitations. Although the search strategy was comprehensive, variations in database coverage and indexing may have affected the identification of relevant studies. The temporal restriction (2018–2023) ensured the inclusion of recent evidence but may have excluded earlier relevant publications. Additionally, limiting inclusion to studies published in Portuguese, English, and Spanish may have introduced language bias. Despite the methodological rigor adopted, the heterogeneity of the included studies hindered direct comparison and limited the generalizability of the results.

This review identifies areas for future research, including the development and evaluation of digital interventions for NMs, such as predictive dashboards and decision support systems. Longitudinal and comparative studies considering different levels of care (hospital and community) are recommended. Additionally, examining how digital literacy and organizational support affect decision quality, particularly in resource-constrained settings, warrants further investigation.

Overall, this review provides an integrated perspective on the processes, support tools, and factors that influence NMs' decision-making, thus contributing to practice, training, and formulation of health policies.

Conclusion

This scoping review identified and synthesized the main processes and factors associated with NMs' decision-making. The included studies highlight the influence of individual, contextual, and technological factors that shape this process and consistently describe a quasi-rational decision-making model. The mapping enabled the identification of the most frequently addressed decision-making areas, the support tools used, and existing knowledge gaps. Overall, this review mapped and systematized the existing evidence on decision-making in nursing management, providing an integrated understanding of the phenomenon.

Author contributions

Conceptualization: Alves, T. R.

Data curation: Alves, T. R., Araújo, I. M., Martins, M. M.

Formal analysis: Alves, T. R.

Investigation: Alves, T. R.

Methodology: Alves, T. R.

Project administration: Alves, T. R.

Resources: Araújo, I. M.

Supervision: Araújo, I. M., Martins, M. M.

Validation: Araújo, I. M., Martins, M. M.

Writing – original draft: Alves, T. R.

Writing – review & editing: Alves, T. R., Araújo, I. M., Martins, M. M.

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