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ABORDAGENS TEÓRICAS DE ADMINISTRAÇÃO, GESTÃO E LIDERANÇA NA LICENCIATURA DE ENFERMAGEM: A SCOPING REVIEW

ADMINISTRATION, MANAGEMENT, AND LEADERSHIP THEORETICAL APPROACHES IN UNDERGRADUATE NURSE EDUCATION: A SCOPING REVIEW

ENFOQUES TEÓRICOS DE ADMINISTRACIÓN, GESTIÓN Y LIDERAZGO EN EL GRADO DE ENFERMERÍA: REVISIÓN DEL ALCANCE

Estefania Canedo^{1,2}  <https://orcid.org/0000-0002-4286-0426>

Carla Fernandes³  <https://orcid.org/0000-0001-7251-5829>

Maria Manuela Martins²  <https://orcid.org/0000-0003-1527-9940>

¹ Universidade de Salamanca, Salamanca, Espanha

² Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto, Porto, Portugal

³ Escola Superior de Enfermagem do Porto, Porto, Portugal

Estefania Canedo – ecoellogo@upsa.es | Carla Fernandes – carlasilviaf@gmail.com | Maria Manuela Martins - mmmartins1956@gmail.com



Corresponding Author:

Estefania Canedo

Avenida das Forças Armadas N° 12 4° Esq

5300-440– Bragança - Portugal

ecoellogo@upsa.es

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RESUMO

Introdução: Nas últimas décadas, a liderança estratégica tem sido identificada como um objetivo global; no entanto, a formação em enfermagem nem sempre fornece o conteúdo necessário em administração e gestão para preparar os enfermeiros aos desafios futuros de liderança.

Objetivo: Explorar conceitos, teorias e programas de aprendizagem em administração, gestão e liderança na licenciatura em enfermagem.

Métodos: A revisão foi realizada em abril de 2022, seguindo a metodologia JBI e as diretrizes PRISMA-ScR nas bases de dados MEDLINE, CINAHL, PsycInfo via EBSCO, e Scopus via Elsevier. Literatura cinzenta e estudos não publicados também foram incluídos através do RCAAP, Canadian Science Publishing e Google Scholar. Foram incluídos artigos em inglês, francês, espanhol e português, publicados e não publicados de 2012 a 2022.

Resultados: Trinta e um artigos responderam aos critérios de elegibilidade da revisão. Foram identificados uma série de conceitos-chave e estratégias pedagógicas para a aprendizagem de habilidades de liderança assim como um programa específico de aprendizagem na licenciatura de enfermagem.

Conclusão: Foi confirmada a necessidade de introduzir todos os conceitos encontrados, apoiados por teorias adaptadas e lógicas ao nível de graduação. O programa de Liderança Clínica em Enfermagem parece apropriado e pode ser um modelo de implementação, mas é necessária mais investigação para desenvolver um currículo de liderança clínica com base em evidências.

Palavras-chave: administração; aprendizagem; educação em enfermagem; ensino; gestão; liderança

ABSTRACT

Introduction: In the last few decades, strategic leadership has been identified as a global goal; however, nursing education does not always provide the content required for administration and management to prepare nurses for future leadership challenges.

Objective: To explore concepts, theories, and learning programs in administration, management, and leadership in undergraduate nursing education.

Methods: The review was conducted in April 2022, following the JBI methodology and PRISMA-ScR guidelines in MEDLINE, CINAHL, PsycInfo databases via EBSCO, and Scopus through Elsevier. Gray literature and unpublished studies were also included through the RCAAP, Canadian Science Publishing, and Google Scholar. Articles in English, French, Spanish, and Portuguese, published and unpublished from 2012 to 2022, were included.

Results: Thirty-one articles met the eligibility criteria for the review. An insightful picture of the key concepts and pedagogical strategies for learning leadership skills was found, as well as one learning program in undergraduate nursing education.

Conclusion: The need to introduce all the concepts found supported by adapted and logical theories at the undergraduate level was confirmed. The Clinical Nurse Leadership program seems appropriate and can be a model of implementation, but more investigation is needed to produce an evidence-based clinical nursing leadership curriculum.

Keywords: administration; leadership; learning; management; nurse education; teaching

RESUMEN

Introducción: En las últimas décadas, el liderazgo estratégico ha sido identificado como un objetivo global; sin embargo, la formación en enfermería no siempre proporciona el contenido necesario en administración y gestión para preparar la enfermería para los desafíos futuros del liderazgo.

Objetivo: Explorar conceptos, teorías y programas pedagógicos en administración, gestión y liderazgo en el grado de enfermería.

Métodos: La revisión se llevó a cabo en abril de 2022, siguiendo la metodología JBI y las pautas PRISMA-ScR en las bases de datos MEDLINE, CINAHL, PsycInfo a través de EBSCO, y Scopus a través de Elsevier. También se incluyó literatura gris y estudios no publicados a través de RCAAP, Canadian Science Publishing y Google Scholar. Se incluyeron artículos en inglés, francés, español y portugués, publicados y no publicados desde 2012 hasta 2022.

Resultados: Treinta y un artículos cumplieron con los criterios de elegibilidad para la revisión. Fueron identificados un conjunto de conceptos clave y estrategias pedagógicas para el aprendizaje de habilidades de liderazgo, así como un programa de aprendizaje en la formación graduada de enfermería.

Conclusión: Se confirmó la necesidad de introducir todos los conceptos encontrados respaldados por teorías adaptadas y lógicas a nivel universitario. El programa de Liderazgo Clínico en Enfermería parece apropiado y puede ser un modelo de implementación, pero se necesita más investigación para producir un plan de estudios de liderazgo clínico basado en la evidencia.

Palabras Clave: administración; aprendizaje; educación en enfermería; enseñanza; gestión; liderazgo

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INTRODUCTION

In recent years, there has been increasing interest in nurse leadership (Allen et al., 2019; Fennimore and Warshawsky, 2019; Hubley et al., 2022), focusing on the administration and management of care (Sriharan et al., 2021). Clinical nurses are expected to play leadership roles in improving patient outcomes, ensuring patient safety, and ensuring efficient work practices (Hubley et al., 2022; Labrague, 2021). Despite this emphasis on leadership, a significant number of nurses have expressed a lack of confidence in their knowledge and skills in this domain (Gatson Grindel, 2016); requiring better and more specific training to transform health care (Fennimore and Warshawsky, 2019; Scammell et al., 2020).

1. THEORETICAL FRAMEWORK

Considering health management through Bertalanffy's theory, administration, and administrative theories are usually perceived as a framework for strategic action aimed at achieving institutional global goals (Dos Santos et al., 2021). At this macro subsystem perspective, qualified professionals in the area anticipate and address potential problems swiftly to minimize consequences (Dos Santos et al., 2021). From the mezzo subsystem perspective, management is intrinsically tied to the direct achievement of institution-specific goals, involving decision-making on economic, financial, and political aspects (Soto-Fuentes et al., 2014). Leadership can be defined as the ability to inspire individuals to do their best to achieve common or institutional objectives (Carragher and Gormley, 2017). Focusing on direct actions from a micro-subsystem perspective.

Nurses constitute one of the largest workforce groups in healthcare worldwide (Franklin et al., 2020; Martin et al., 2016). They have historically driven innovation in health care (Franklin et al., 2020), are on the frontline in major incidents (Martin et al., 2016), and currently lead improvement programs and leadership at the present time. Their pivotal role in promoting better practice outcomes in both individual and community care (Franklin et al., 2020; Jack et al., 2022) highlights the need to enhance their knowledge and skills at the undergraduate level to achieve positive health outcomes (Gatson Grindel, 2016; Martin et al., 2016). Recognizing the significance of nursing students in the future healthcare landscape (Diffley and Duddle, 2022), it is crucial to provide them with solid undergraduate nursing education to successfully navigate health and lead change (Galuska, 2015; Hathaway, 2013; Labrague, 2021; Sundean et al., 2019). The preparation of future leaders begins with nursing education programs (Fennimore and Warshawsky, 2019; Labrague, 2021; Scammell et al., 2020). Consequently, understanding the nature of nurses' preparation for leadership roles, identifying potential differences between management and leadership, and re-evaluating the foundational aspects of these topics have become an international imperative (Scammell et al., 2020).

Leadership training has been identified as a key component of nursing education for improving performance and quality in the health system (Ha and Pepin, 2018; Hathaway, 2013), beginning at the undergraduate level (Bender et al., 2019; Embree et al., 2018; Galuska, 2015). The relevance of leadership extends beyond managing people or resources (Scammell et al., 2020). It is also, or even more relevant, at the bedside of patients and in delivering quality daily care (Gatson Grindel, 2016).

In the actual clinical context, when leaving university, novice nurses are expected to have the ability to provide patient-centred care supported by evidence-based practice with a prioritized and efficient approach (Fennimore and Warshawsky, 2019; Goudreau et al., 2015). This implies a high level of clinical reasoning (Goudreau et al., 2015; Schultz et al., 2012); skills in Emotional Intelligence (EI) (Carragher and Gormley, 2017); and leadership (Goudreau et al., 2015). Nursing is no longer task-oriented, and continuing with standardized nursing practices seems inadequate (Schultz et al., 2012).

The landscape of teaching leadership and management topics to undergraduate nursing students varies and is unclear, differing between countries and universities (Canedo et al., 2023). However, there is an increasing need for nurses to be prepared to undertake postgraduate management and leadership training (Fennimore and Warshawsky, 2019) to lead interprofessional teams worldwide. Nursing students are expected to be able to transition from apprentice to novice nurses after graduation (Schultz et al., 2012). This is because we aim to explore concepts, theories, and learning programs in administration, management, and leadership in undergraduate nursing education to improve topic instruction.

Initial research conducted by Morrow (2015), on these topics revealed sparse evidence and gaps between concepts, definitions, and distribution of themes by different levels of higher education. Two relevant papers were found: a scoping review conducted by Scammell et al. (2020) focused on undergraduate students' preparation for leadership roles upon registration. A scoping review protocol conducted by Huynh (2021); mapped the use of clinical simulation in the development of leadership competencies in undergraduate education. Neither study explores concepts, learning programs, or theoretical approaches, which must be the foundation of the topics (Huynh, 2021; Scammell et al., 2020).

Based on this framework, this scoping review aimed to explore concepts, theories, and learning programs commonly used for teaching-learning these topics in administration, management, and leadership in undergraduate nursing education, by answering the following research questions:

1. What are the fundamental concepts for teaching-learning this topics?
2. What theoretical approaches underpin this topics in undergraduate nursing education?
3. Which learning programs are commonly used for leadership, management, and administration skills development?

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2. METHODS

The review was conducted following the Joanna Briggs Institute methodology (Peters et al., 2020). This approach allows mapping of what has been done previously and clarifies what the literature says in relation to the study object (Khalil et al., 2021). Synthesizing the existing evidence allows a better analysis of the results and enables the identification of the most used and implemented topics at the present time. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018) was also followed. A review protocol was developed prior to the review, registered (<https://osf.io/gq3bn>), and previously published (Canedo et al., 2023).

2.1 Search Methods and Outcomes

The search was performed in April 2022 using the following databases: Medline (PubMed), CinahlPlus, PsycInfo, and Scopus. The search for grey literature and unpublished studies was also conducted using the Open Access Scientific Repository of Portugal (RCAAP), Canadian Science Publishing (CSP), and Google Scholar.

All types of studies were considered and included. The search was limited to the languages that the research team could understand (English, French, Portuguese, and Spanish). The temporal limitation was chosen considering the critical literature review conducted by Morrow in 2015, so it was considered unnecessary, including articles dating back to more than ten years. No geographical or cultural limitations were imposed, and the reference lists of the full-text articles were screened for additional inclusion.

The MeSH terms identified can be appreciated in Table 1 Participants, Concept, and Context (PCC) framework. All of them were included and adapted for each information source employed, developing a full search strategy with appropriate truncation and Boolean operators, as can be appreciated in Appendix 1.

Table 1 - PCC Framework near here

| | | |
|---|--------------|--|
| P | Participants | Nurses students. |
| C | Concept | Fundamental concepts, theoretical approaches and learn programmes to teaching-learning administration, management, and leadership. |
| C | Context | Undergraduate nurse education. |

All identified references were compiled and uploaded to the Rayyan® platform, and duplicates were removed, resulting in 3.596 articles. Findings were selected using a three-step process: title, abstract, and revision of the full text, as proposed by the Preferred Reporting Items for Systematic Reviews and Meta-Analysis for Scoping Reviews (PRISMA-ScR) guidelines (Tricco et al., 2018).

First, titles were analyzed based on the inclusion criteria by two authors independently in blind-on (Munn et al., 2018; Peters et al., 2020; Tricco et al., 2018). In the second step, all abstracts of the selected articles were reviewed, and discrepancies were resolved by a third independent reviewer (Tricco et al., 2018). In the third step, the selected articles were fully retrieved for detailed analysis and the full text was read independently.

The same process was performed for the other methods used for literature identification, including grey literature and references. Both processes yielded 31 relevant articles on the topics. The results of the search and the study inclusion process followed the PRISMA-ScR recommendations and can be appraised in the PRISMA flow diagram presented in Figure 1 (Munn et al., 2018; Page et al., 2021).

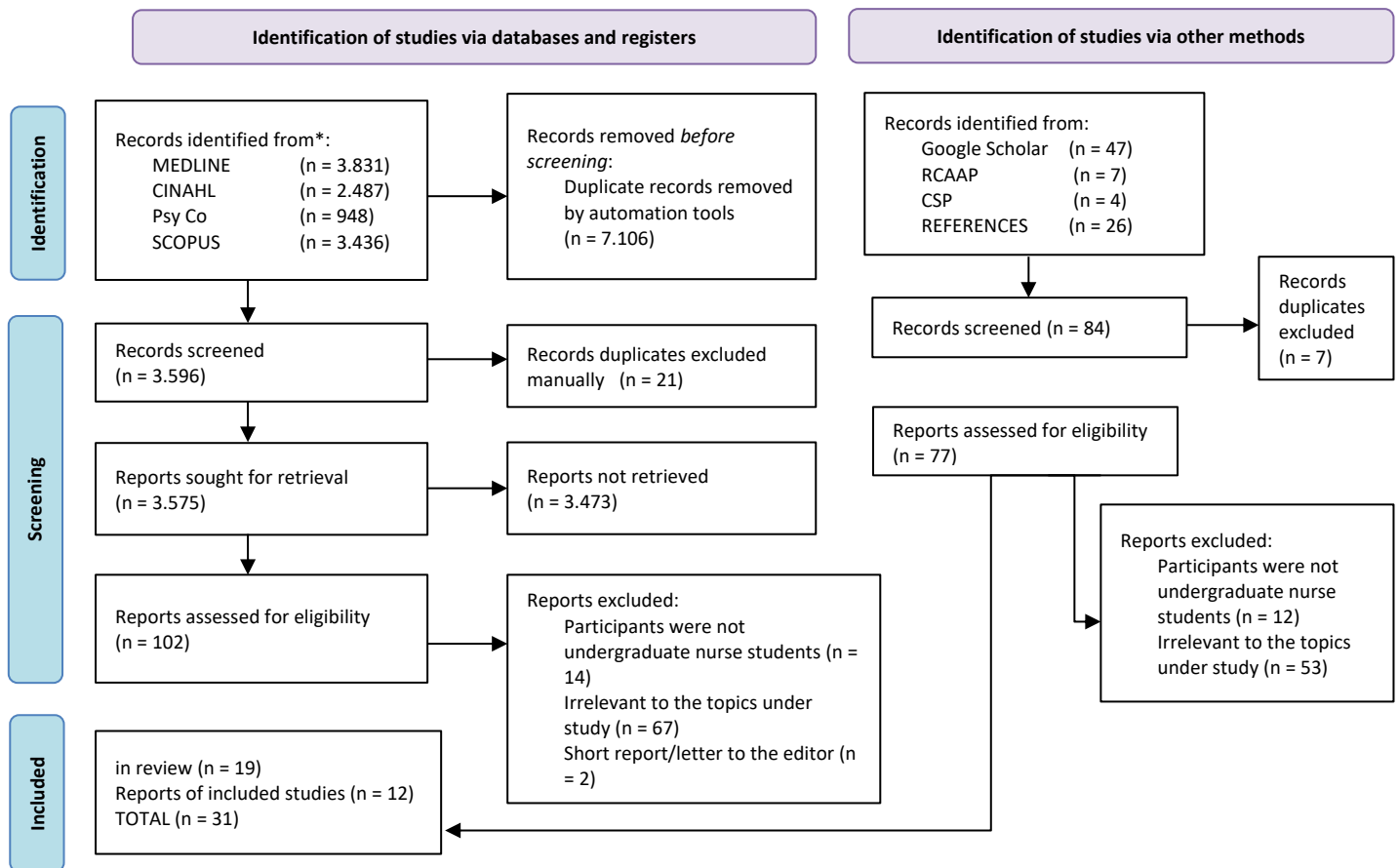


Figure 1 - PRISMA flow diagram near here

2.2 Quality Appraisal and Extraction Synthesis

The main articles were assessed using the JBI-recommended methodology for the development of scoping reviews (Peters et al., 2020). To minimize bias and increase methodological rigor, two authors independently used an adaptation of the JBI qualitative data extraction tool that can be accessed at Appendix 2. This adapted tool was developed in a previous protocol and focused on study topics (Canedo et al., 2023). After data extraction, all data were conferred, and any disagreements or transcription errors were avoided. Additionally, study characteristics were summarized and presented in Table 2 according to the objectives of this scoping review.

3. RESULTS

3.1 Characteristics of Included Studies

A relevant number of articles (n=31) were identified on the topics and included in the final analysis. The studies were published between 2012 and 2022, with 2018 as the year with the highest prevalence. The design and the publication year are presented in Figure 2. These studies were conducted in nine different countries; most of the studies were conducted on the American continent, and only six were conducted in European countries. The geographical location can be seen in Figure 3. All studies focused on nursing students and undergraduate nursing education, of which only four include, beyond undergraduate, graduate, and lifelong learning.

Table 2 - Characteristics of Included Studies near here

| ## | Author(s) (Year, Country) | Design | Source | Aims | Participants | Context | Fundamental Concepts |
|----|---|-------------------|---------------------------------|---|----------------------------------|--------------------------------|---|
| 1 | Al-Dossary, Kitsantas & Maddox (2016, Saudi Arabia) | Quantitative | Journal of Professional Nursing | Assess the impact of residency programs on leadership skills of new Saudi graduate nurses who completed a residency programme, compared to new Saudi graduate nurses who did not participate in residency programmes. | Nurse students | Undergraduate | Leadership. |
| 2 | Allen et al. (2019, UK) | Qualitative | Nursing Inquiry | Describes specifics of EBP and theoretically informed competencies for the organizational component of the nursing role and proposes how these might be developed and assessed in educational programs. | Nurse students | Undergraduate | Management. |
| 3 | Amestoy et al. (2013, Brazil) | Case study | Texto Contexto Enfermagem | Know the perception of nurses about the teaching-learning process of leadership during the undergraduate course. | Nurse students | Undergraduate | Leadership. |
| 4 | Brown, Crookes & Dewing (2015, Australia) | Literature review | Contemporary Nurse | Explore the literature on clinical leadership development within preregistration nursing programs. | Nurse students | Undergraduate | Clinical leadership. Management. |
| 5 | Brown, Crookes & Dewing (2016, Australia) | Mixed methods | Nurse Education Today | Identify what the professions' views are on proposed indicative curriculum content suggested for clinical leadership development in a pre-registration nursing degree in Australia. | Nurse students | Pre-registration | Clinical leadership. |
| 6 | Carragher & Gormley (2016, UK) | Discussion paper | Journal of Advanced Nursing | Discussion of the concepts of leadership and emotional intelligence in nursing and midwifery education and practice. | Nurse students, Midwifery and RN | Academic and Lifelong learning | Emotional Intelligence (EI). Leadership. |
| 7 | Caveião et al. (2017, Brazil) | Quantitative | REBEN | Identify the tendencies and teaching-learning strategies used for leadership development in the discipline of Nursing Administration in Brazil. | Nurse students | Undergraduate | Administration. Leadership. |
| 8 | Da Silva et al. (2018, Brazil) | Qualitative | Rev Fun Care | Reveal the nurses' perception regarding the teaching-learning process of the curricular component of Supervision and Management in Health and Nursing, and about the support for professional performance. | Nurse students and RN | Academic and Lifelong learning | Management. Leadership. Supervision. |

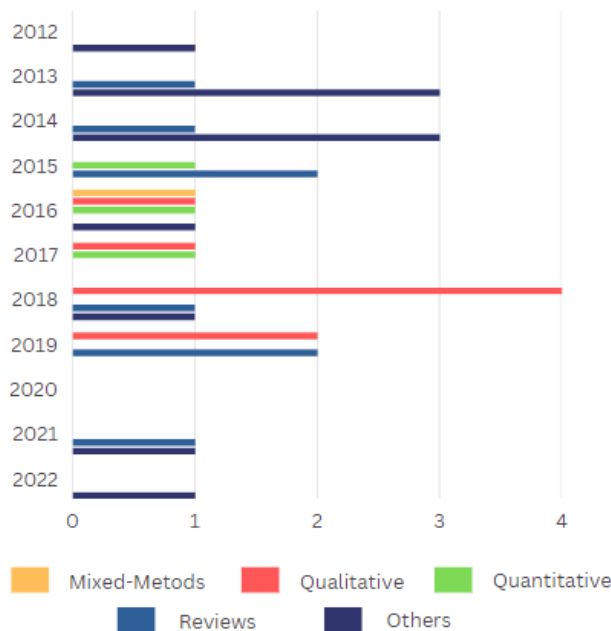


Figure 2 - Articles per Year and Study Design near here



Figure 3 - Map of Articles Geographical Location near here

3.2 Fundamental concepts

The analysis of the included articles provides an insightful picture of the key fundamental concepts that should be included in the teaching-learning process of this topic, as can be observed in Figure 4. Some are clearly associated with administrative theories, but globally, they are all related to the social, behavioral, and reflexive sciences (Bender et al., 2019; Fischer, 2016; Jack et al., 2022).

Two central concepts emerged in practically all articles: management and leadership. Although administration is also a central concept, it appears to be more related to Latin countries (Caveião et al., 2018; Soto-Fuentes et al., 2014). Furthermore, considering

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the definitions proposed by the authors, it seems to be more connected to the institution itself than to the person performing administrative tasks (Androwich et al., 2012; Brown et al., 2016; Caveião et al., 2018; Soto-Fuentes et al., 2014). In most of the analyzed articles, management was described as a stronger concept applied more to economic, financial, and political aspects (Brown et al., 2015; Soto-Fuentes et al., 2014). Management is more focused on the decision-making process, with a heavy institutional responsibility concerning the work undertaken by the staff (Soto-Fuentes et al., 2014). Furthermore, leadership appears to be associated with the success of patient-care initiatives. The literature on this converges and indicates that good leaders contribute to good nursing practices, focusing on patient-centered care (Brown et al., 2015; Carragher and Gormley, 2017; Jack et al., 2022; Labrague, 2021; Scully, 2015); and empowering their teams. Conversely, poor leaders produce poor care (Scully, 2015) and negatively influence their staff

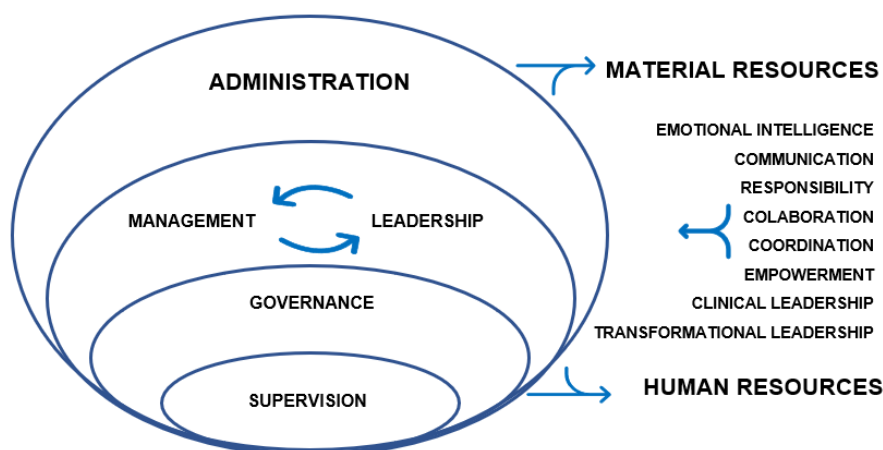


Figure 4 - Concepts and their articulation near here

3.3 Theoretical approaches

The literature analyzed concurs that there are several leadership theories, but such theories may not always be relevant to nursing practice. Carragher and Gormley (2017), reported a lack of scientific research in this area. Making it difficult to identify what is appropriate in care provision and which is the most effective leadership model in healthcare (Carragher and Gormley, 2017).

The leadership theory, associated with the “great man,” is referred to by the authors as the starting point for the identification of personal and universal leadership characteristics traits (Carragher and Gormley, 2017; Scully, 2015). This background allowed the emergence of transformational leadership theory, which is based on robust organizational support, sufficient personal resources for leadership performance, exercise of positive leadership, and healthy outcomes. Promoting effective leadership practices (Carragher and Gormley, 2017; Ross et al., 2018).

Allen and May (2017) cite a theoretical model related to care delivery and management of interrelationships in the healthcare process, the Translational Mobilisation Theory. This model is based on the need to apply concepts and theories to describe, analyze, and reflect on practice as a fundamental skill for a successful care management trajectory (Allen et al., 2019).

Morrow stated that the theory of constructivism allows for the development of strategies focused on the creation of knowledge by the student in autonomy. Promoting cognitive development, from his point of view, tends to improve decision-making in critical situations (Morrow, 2015). The author also cited Benner's perspective, stating that nursing education needs knowledge of leadership and nursing science to develop leadership skills in students (Morrow, 2015).

Soto-Fuentes et al., also referred to Benner theory. The author pointed out that practical knowledge develops nursing curiosity and research, modifying training structures and facilitating the union between theory and practice. This emphasizes that competence acquisition is related to professional experience progressing through the skill levels proposed by Benner (Soto-Fuentes et al., 2014).

The Benner's middle-range theory involves both the development process of specific leadership competencies and the differentiation of the different steps reached by a nurse through the performance of clinical practice over time, supported by differentiated and specific training (Quinn, 2020; Ross et al., 2018). This allows the nurse to progress from a baseline and initial point in their career and training as a novice until reaching the highest point and becoming an expert (Quinn, 2020).

Regarding teaching the topics of this scoping review, highlight the constructivist competency-based educational approach inspired by socio-constructivism theory (Ha and Pepin, 2018). This theoretical approach combines the principles of constructivism and competency-based education to create a learning paradigm that emphasizes active engagement, personalized learning paths, and real-world application of skills (Ha and Pepin, 2018). Students construct their understanding through hands-on activities and collaborative effort. Assessment focuses on real applications and instruction is tailored to individual learning styles, fostering a deeper understanding of

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concepts. This approach seeks to empower students by preparing them with practical skills and knowledge essential for success in real work scenarios (Ha and Pepin, 2018). Proposing that students must be involved in learning environments, encouraging dialogue nurtured by scientific investigation in small groups and supervised by facilitators (teachers) (Ha and Pepin, 2018). Along the same lines, Dos Santos et al. (2021) discussed the theoretical precepts of Peter Senge. In his work "The Fifth Discipline: The Art and Practice of the Learning Organisation", Peter Senge presents a new approach to nursing leadership training. He stated the need to promote a deep reflection on the theory and pedagogical methodology employed, allowing the development of central learning skills in nursing leadership (Dos Santos et al., 2021). Another perspective that emerged was the Freirean perspective (Da Silva et al., 2018). This relates to the need to experience the situations and then perform a subsequent critical reflection guided by a facilitator (teacher) before the learning process. Paulo Freire affirms that learning precedes teaching because teaching is a component of the profound experience of learning (Amestoy et al., 2013; Freire, 1997). This perspective concurs with Kolbs' Experiential Learning Theory (ELT, 1984). Kolbs' theory refers to the learning process as an interactive relationship between a student and their surrounding environment (Gore et al., 2015). Fundamental insights into management and leadership teaching-learning. A map of the identified theories can be observed in Table 3.

Table 3 – Map of identified theories near here

| Author(s) (Year) | Country | Title | Theoretical Models | Context | Key findings |
|----------------------------|---------|---|---|--------------------------------|--|
| Allen et al. (2019) | UK | Integrating preparation for care trajectory management into nurse education: Competencies and pedagogical strategies. | Translational Mobilisation Theory (Allen & May, 2017) | Undergraduate | The translational mobilization theory was developed from this research to describe, identify, and explain the mechanisms of emergent organization in complex organizational contexts since care management is a complex activity dependent on high-level clinical, organizational, and communicative knowledge and skills. Management instruction in the nursing curriculum allows for equipping future generations of nurses with the theoretical and conceptual resources necessary to understand, analyze, and communicate effectively, increasing their legitimacy, optimizing their effectiveness, and contributing to new service models, technologies, and processes. |
| Amestoy et al. (2013) | Brazil | Nurses' perception of the teaching-learning process of leadership. | Freirean Perspective, Pedagogy of autonomy (Freire, 1996; 2001; 2005; 2007) | Undergraduate | The preparation of the subject for learning may be focused on critical engagement, regardless of whether the engagement takes place through the reading of a text, which was proposed by the teacher, or if it starts the learners' desire and curiosity to make a critical reflection on a social or natural event. The important is to articulate this learning with the reality of the student, starting from his scenario and valuing empirical knowledge, and then building new knowledge beyond the academic environment. |
| Carragher & Gormley (2016) | UK | Leadership and emotional intelligence in nursing and midwifery education and practice: a discussion paper. | Great Man and Behaviourist Theories Situational Leadership, Contingency Transactional and Transformational Theory | Academic and Lifelong learning | The results suggest that students are more concerned with task-oriented than people-oriented leadership behaviors. Highlighting the need for effective and emotionally intelligent (EI) leadership to meet future challenges. This points to the need to introduce pedagogical strategies based on appropriate theories to develop EI and leadership in all undergraduate curricula and promote regularly through lifelong learning updates. |
| Da Silva et al. (2018) | Brazil | Nurses' perception towards the teaching-learning process of Nursing management. | Freirean Perspective and Research Itinerary (Freire, 2001; 2011) | Academic and Lifelong learning | It is necessary a critical and reflexive intervention to provide tools capable of preparing the student for the effective marketplace confrontation, both in the assistance perspective and the decision-making process. From this perspective, the student is the protagonist of the teaching-learning process. |
| Dos Santos et al. (2021) | Brazil | Theoretical-practical articulation of the continuous learning of leadership in Nursing in light of Peter Senge | The fifth discipline (Peter Senge, 2018) | Undergraduate | The research contributes to the construction of knowledge related to the exercise of leadership in nurses with a theoretical framework relevant to the development of teaching this competence. Leadership must be developed continuously, but this does not depend only on technical knowledge, as it includes other variables such as professional experience, self-knowledge, identification of weaknesses, and opportunities to better exercise at the work process in health services |

| Author(s) (Year) | Country | Title | Theoretical Models | Context | Key findings |
|-----------------------------|---------|---|---|----------------------------|---|
| Gore, Johnson & Wang (2015) | USA | Teaching Nursing Leadership: Comparison of Simulation versus Traditional Inpatient Clinical. | Experiential Learning Theory (ELT) (Kolb's, 1984) | Undergraduate | The ELT is a process of learning with an interactive relationship between the learner and the environment. The major components include the occurrence of a concrete experience, reflective observation of the concrete experience, abstract conceptualization by learning and looking for identifiable patterns from the concrete experience, and active experimentation by applying what has been learned. |
| Ha & Pepin (2018) | Canada | Clinical nursing leadership educational intervention for first-year nursing students: A qualitative evaluation. | Constructivist educational perspective | Undergraduate | From a constructivist educational perspective, clinical nursing leadership is considered a competency that needs to be nurtured by a mix of intentional and non-intentional leadership learning activities, early on throughout preregistration programs and professional practice. This approach posits that students build knowledge by relating new knowledge to their existing mental schemes through a progressive and longitudinally development of leadership skills. |
| Morrow (2015) | USA | Leadership Curricula in Nursing Education: A Critical Literature Review and Gap Analysis | Constructivism theory Benner perspective (Benner, 2010) | Undergraduate | The constructivism theory was employed to develop online strategies, student directed and active, with extensive use of discussion and small-group activities. These types of strategies have proven to be more effective at student cognitive development than traditional passive strategies, such as lectures. From the Benner perspective, nursing education has a great need for faculty who possess an understanding of both leadership and nursing science, as well as an interest in research focused on the study of strategies to develop leadership ability in students. |
| Ross et al. (2018) | Canada | Student Preparation for Nursing Leadership: Lessons from an Undergraduate Programs Review | From novice to expert (Benner, 1982; 1984) | Undergraduate | The Conceptual Model for Developing and Sustaining Leadership is also congruent with Benner (1984), point of view of competency as a continuum, ranging from novice to expert. Since evidence-based leadership practice is informed by research, to attain and maintain expert leadership practice life-long learning and reflection on leadership practice. |
| Dos Santos et al. (2021) | Brazil | Theoretical-practical articulation of the continuous learning of leadership in Nursing in light of Peter Senge | The fifth discipline (Peter Senge, 2018) | Undergraduate | The research contributes to the construction of knowledge related to the exercise of leadership in nurses with a theoretical framework relevant to the development of teaching this competence. Leadership must be developed continuously, but this does not depend only on technical knowledge, as it includes other variables such as professional experience, self-knowledge, identification of weaknesses, and opportunities to better exercise the work process in health services |
| Soto-Fuentes et al. (2014) | Chile | Skills for Nurses in the Field of Management and Administration: Contemporary Challenges to the Profession | Novice to Expert (Benner, 1982) | Undergraduate and Graduate | Benner's theory studies clinical nursing practice to describe the knowledge underpinnings, concluding that practical knowledge allows for the development of nursing research, modifying training structures for future professionals in different disciplines, and the creation of empirical indicators that favor the union between theory and practice. This theory points out that as the professional acquires experience, and advances from beginner to advanced beginner, competent, proficient, efficient, and expert, clinical expertise becomes a combination of practical and theoretical knowledge. Thus, the acquisition of competencies, according to the phase in which the professional is, becomes safer and faster since, besides being based on one's own experience, this experience also comes from a solid educational and theoretical basis. |

3.4 Learn program

Despite the 31 studies, only one specific program focused on undergraduate education was found (Ha and Pepin, 2017; 2018). The Clinical Nurse Leadership program was developed using a competency-based approach to undergraduate nursing education. The framework sets the level of expected competencies developed at the conclusion of each program year. Delineating the necessary knowledge, skills, and attitudes associated with each competency level. Pedagogical interventions were collaboratively developed by a team of nursing students and educators. This intervention involved two sequential components: a classroom

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activity (A) conducted during the initial semester of the first-year core unit, followed by a clinical practice activity (B) in the second semester. Six months later, the students were handed a reflective journal to be completed during their practicum (Ha and Pepin, 2017; 2018).

The educational intervention mainly used brainstorming and reflective journals to support 1st-year students' clinical leadership development. The study findings show that small-group discussions focused on concepts and topics that can support students' communicative skills that are essential for clinical nursing leadership. The results also reported that group reflection could replace individual reflection, allowing students to analyze and share clinical nursing leadership experiences with role models, building a common understanding of clinical nursing leadership. The evaluation of educational interventions that support learning in 2nd and 3rd-year students has not yet been published and cannot be appreciated, but it seems necessary to create an evidence-based clinical nursing leadership curriculum thread (Ha and Pepin, 2017; 2018).

4. DISCUSSION

Nursing students are commonly referred to as the next generation of leaders in healthcare (Anazor, 2012; Fennimore and Warshawsky, 2019; Wilmoth and Shapiro, 2014). Most authors have stated that successful leadership can improve health outcomes and team satisfaction and promote a positive work environment (Gatson Grindel, 2016; Gore et al., 2015).

However, undergraduate nursing students still find it difficult to understand and apply key management and leadership concepts, resulting in a lack of knowledge and experience (Hathaway, 2013). This suggests that the undergraduate teaching-learning process of the subject is not always successful, and there is a lack of studies concerning this teaching process that allows the identification of fundamental topics and how to integrate and incorporate them into the subject (Morrow, 2015).

Many concepts have emerged regarding the first question. The literature describes leadership as the process of influencing and inspiring others toward a common goal (Heinen et al., 2019; Ross et al., 2018). Management is presented as the achievement of institutional objectives through economic, financial, and political decision-making (Soto-Fuentes et al., 2014). Managers can be leaders, but both concepts are not synonyms. Leaders need more freedom to perform their functions than managers; however, they also need management to accomplish administrative tasks (Scully, 2015).

In a literature review conducted by Soto-Fuentes et al. (2014), the authors highlighted the emergence of administrative concepts and their articulation. Administration is described as an institutional hierarchical function that consists of allocating and optimizing resources and performing administrative tasks using pre-established tools (Soto-Fuentes et al., 2014; Strudwick et al., 2019).

Some authors have presented management as a concept more focused on economic, financial, and political aspects (Leal et al., 2018; Soto-Fuentes et al., 2014), and leadership with more autonomy and freedom related to its function (Soto-Fuentes et al., 2014). Finally, governance was included as a rudder, guiding the nursing team itself (Sundean et al., 2019), within which we could find the supervisor position on a minor scale. Governance is an emerging concept. Described as the authority that holds ultimate oversight responsibility in organizations (Sundean et al., 2019).

Another emerging concept is emotional intelligence, which can also be considered as one of the key leadership skills, because to lead, it is necessary to recognize and regulate one's own emotions (Gatson Grindel, 2016), before communicating (Pollard and Wild, 2014), and managing people. Communication makes all the difference (Pollard and Wild, 2014). One of the major causes of avoidable harm in healthcare arises from poor or insufficient communication (Pollard and Wild, 2014). Leading to the statement that a leader needs to know how to communicate, not only with the different organizational departments, but also with his team, especially with the patients and users of the system (Pollard and Wild, 2014).

Focusing on the theories as the second question, the literature reports a gap between theory and practice, stating that the theory taught does not correspond to the needs found in the field (Moafimadani et al., 2020). Several organizations, including academic and healthcare institutions, are increasingly underlining the critical need to provide nursing students with management and leadership skills before graduation (Labrague 2021). This should be based on theories that correspond to ground reality.

Regarding nursing practice, Benner's perspective (Benner et al., 2009) has been highlighted as one of the most frequently mentioned as being indissociable from the discipline (Gatson Grindel, 2016; Morrow, 2015; Quinn, 2020). Situated learning is pointed as a necessity in nursing education, stating that for effective learning, interaction with clinical practice and workplace training is necessary (Ailey et al., 2015; Benner, 1984; Benner et al., 2009).

From Peter Senge's perspective, leadership can be learned by expanding students' individual and collective abilities to build the results that they expect to produce (Dos Santos et al., 2021). This can occur with the introduction of clinical and academic environments as scenarios, propitious to the association between nurse theory and practice, which fosters learning by doing (Dos Santos et al., 2021; Galuska, 2015).

Finally for the third question, the review highlights only one learning program across the undergraduate level, starting from the first year of training. Supporting clinical group reasoning from individual experiences encountered during clinical training. (Ha and Pepin, 2017; 2018; Pepin et al., 2011).

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4.1 Implications for practice

This review compiles the characteristics and contents of several concepts and theories that must be included in the instruction of the subject. In view of the findings, we would like to highlight that:

- The different concepts and their articulation should be presented and clarified at the undergraduate level. This concept differentiation seems necessary for better knowledge assimilation and an understanding of nurse leader practice.
- This first approach allows future nurses to realize the magnitude of management and leadership in their profession and be able to act at the appropriate level according to the situation they are faced with.
- Teaching-learning this topic needs a combination of pedagogical, administrative, and nursing theories. To provide consistency and strength to the subject curriculum, guiding the teacher in his instruction practice. Because these are complex topics that need a different perspective combination.
- The constructivist competency-based educational approach, including learning by doing with a theoretical framework, provides good experiences in creating knowledge and building competencies in management and leadership.
- The combination of Bertalanffy's general systems theory, Freirean Pedagogical perspective, Constructivist competency-based educational approach, and Benner's middle-range theory, with his research in excellence and power in clinical practice, can be the foundations of the theoretical basis for teaching those topics.

4.2 Limitations

Although a significant amount of evidence was included, there is always the possibility that some of the excluded articles, due to not directly addressing the topics, contained important contributions and innovations for teaching and clinical practice. Also, many of the studies that address teaching programs or strategies have been conducted at a single institution, with small groups, meaning that they are not completely generalizable. Despite the inclusion of the four languages, there is always the possibility of excluding relevant studies published in other languages. Nonetheless, the compilation of relevant literature directly related to the subject also facilitates the identification of gaps for future research.

CONCLUSION

This review confirms the need to introduce concepts supported by adapted and logical theories at the undergraduate level. The results suggest the need to combine different theories in the teaching-learning process, highlighting Patricia Benner's theory as the most significant in the field of nursing. The Clinical Nurse Leadership program seems appropriate and can be a model of implementation, but more investigation of the results of the implementation in the 2nd and 3rd years is needed to produce an evidence-based clinical nursing leadership curriculum. Continued research is recommended in the undergraduate context, including clinical practice, professional impressions, inquiring leaders, and patient perceptions.

AUTHOR CONTRIBUTIONS

Conceptualization, E.C., C.F. and M.M.M.; data curation, E.C., C.F. and M.M.M.; formal analysis, E.C., C.F. and M.M.M.; investigation, E.C.; methodology, E.C.; project administration, E.C.; resources, E.C.; software, E.C. and C.F.; supervision, C.F.; validation, E.C., C.F. and M.M.M.; visualization, C.F.; writing-original draft, E.C.; writing-review and editing, E.C., C.F. and M.M.M.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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APPENDIX 1

Table 2 – Search strategy: MEDLINE (HEBSCO) conducted on April 09, 2022.

| Search | Query | Records retrieved |
|--------|---|-------------------|
| #1 | TI AB (Student* OR Learner* OR Scholar* OR Undergraduate* OR Nurs* OR Nannie* OR Registered Nurs*) | 844,872 |
| #2 | TI AB (Organization* OR "Health services administration" OR (Administration and Management) OR "Organizational learning management" OR "Nurse manager education" OR "Health management" OR "Subject area") | 1,095,650 |
| #3 | TI AB (Learn* OR Teach* OR School* OR Education* OR "Curriculum plan" OR "Course structure" OR "Training programme" OR "Curricular programme" OR "Structured teaching programme" OR "Professional field" OR "Pedagogical innovation" OR "Teaching innovation" OR "Educational innovation" OR "Educational methodology") | 860,796 |
| #4 | TI AB ("Nurses" OR "Nursing Student" OR "Nursing Students" OR "Education Nursing" OR "Education Nursing Graduate" OR "Education Nursing Baccalaureate" OR "Licensure, Nursing") | 211,980 |
| #5 | TI AB ("Leadership" OR "Management" OR "Nurse Administrators" OR "Nursing Administration Research" OR "Nursing Supervisory" OR ("Organization and Administration") OR "Health Services Administration") | 1,781,368 |
| #6 | TI AB ("Learning" OR "Teaching" OR "Faculty Nursing" OR "Schools, Nursing" OR "Education, Nursing, Diploma Programs" OR "Nursing faculty practice" OR "Nurse's Role" OR "Professional Role" OR "Student Health Services" OR "Nursing Education Research") | 4,206 |
| #7 | #1 AND #4 | 496,747 |
| #8 | #2 AND #5 | 1,657,413 |
| #9 | #3 AND #6 | 284,780 |
| #10 | #7 AND #8 AND #9 | 14,563 |
| #11 | Limit #10 to from 01/01/2012 | 8,226 |
| #12 | Limit #11 to full text | 3,947 |
| #13 | Limit #12 to (English[Filter] OR French[Filter] OR Spanish[Filter] OR Portuguese[Filter]) | 3,831 |

APPENDIX 2

Data extraction tool

| ## | Reviewer XX | Bibliographic and Metric Information |
|----|-------------|--------------------------------------|
| | | Article Title |
| | | Author(s) |
| | | Year of publication |
| | | Source |
| | | Country of study |
| | | Design/Methodology |
| | | Population |
| | | Educational level |
| | | Aims of study |
| | | Main conclusions |
| | | Comments |