

## **Instruments for Assessing Leadership Skills in Nursing: A literature review**

### **Instrumentos para avaliação das competências de liderança em enfermagem: Revisão de literatura**

### **Instrumentos para evaluar habilidades de liderazgo en enfermería: Revisión de la literatura**

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**Abstract:** Introduction: The technological diffusion of the job market requires the development of differentiated skills and competences of nurses, so that they can assume new managerial and organizational responsibilities. Objective: to identify instruments in the literature to assess the skills necessary for leadership in nursing. Method: integrative literature review which used the bases Latin American and Caribbean Literature in Health Sciences (LILACS), Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Scopus. Results: 10 studies were selected in this review, which identified the following instruments: Ambulance Nurse Competence (ANC) scale; Leadership Practices Inventory (LPI); Clinical Leadership Needs Analysis (CLeeNA) Instrument; Cotter Preceptor Selection Instrument (CPSI); Performance Evaluation Tool; Leadership and Management Inventory; Advanced Practice Nursing Competency Assessment Instrument (APNCAI); Kuopio University Hospital Transformational Leadership Scale (KUHTLS); Multisource Feedback (MSF) is an instrument whose title was not informed by the authors, consisting of constructs to enable nursing leader communication behaviors. Conclusion: This integrative literature review identified ten instruments to assess essential competencies for leadership in nursing. Communication was identified as one of the main competencies aligned with the role of manager. Decision making, social skills, team management, up-to-date information, strategic and financial management are extremely important elements in the nurse's managerial and care exercise, so that a harmonious relationship is established between leaders and those who are led in the job process.

**Keywords:** leadership; professional competence; nursing.

**Resumo:** Introdução: A difusão tecnológica do mercado de trabalho exige o desenvolvimento de habilidades e competências diferenciadas dos enfermeiros, para que estes possam assumir novas responsabilidades gerenciais e organizacionais. Objetivo: Identificar na literatura instrumentos para avaliação das competências necessárias à liderança em enfermagem. Método: Revisão integrativa da literatura, a qual utilizou as bases Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS), Cumulative Index to Nursing and Allied Health Literature (CINAHL) e Scopus. Resultados: Foram selecionados 10 estudos nesta revisão os quais identificaram os seguintes instrumentos: Ambulance Nurse Competence (ANC) scale; Leadership Practices Inventory (LPI); Clinical Leadership Needs Analysis (CLeeNA) Instrument; Cotter Preceptor Selection Instrument (CPSI); Performance Evaluation Tool; Leadership and Management Inventory; Advanced Practice Nursing Competency Assessment Instrument (APNCAI); Kuopio University Hospital Transformational Leadership Scale (KUHTLS); Multisource Feedback (MSF) e um instrumento constituído por construtos para capacitar sobre os comportamentos de comunicação dos líderes em enfermagem, cujo título não foi informado pelos autores. Conclusão: Esta revisão integrativa da literatura identificou dez instrumentos para avaliar as competências essenciais à liderança em enfermagem. A comunicação foi identificada como uma das principais competências alinhada ao papel de gestor. A tomada de decisão, a habilidade social, o gerenciamento da equipe, a informação atualizada e a gestão estratégica e financeira são elementos de suma importância no exercício gerencial e assistencial do enfermeiro, para que se estabeleça uma relação harmônica entre os líderes e os liderados no processo de trabalho.

**Palavras-chave:** liderança; competência profissional; enfermagem.

**Resumen:** Introducción: La difusión tecnológica del mercado de trabajo exige el desarrollo de habilidades y competencias diferenciadas de los enfermeros, para que puedan asumir nuevas responsabilidades gerenciales y organizacionales. Objetivo: Identificar instrumentos en la literatura para evaluar las habilidades necesarias para el liderazgo en enfermería. Método: Revisión integradora de la literatura que utilizó las bases Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS), Cumulative Index to Nursing and Allied Health Literature (CINAHL) y Scopus. Resultados: 10 estudios fueron seleccionados en esta revisión, que identificaron los siguientes instrumentos: escala Ambulance Nurse Competence (ANC); Leadership Practices Inventory (LPI); Clinical Leadership Needs Analysis (CLeeNA) Instrument; Cotter Preceptor Selection Instrument (CPSI); Performance Evaluation Tool; Leadership and Management Inventory; Advanced Practice Nursing Competency Assessment Instrument (APNCAI); Kuopio University Hospital Transformational Leadership Scale (KUHTLS); Multisource Feedback (MSF) y un instrumento que consiste en constructos para la capacitación en conductas de comunicación de los líderes de enfermería, cuyo título no fue informado por los autores. Conclusión: Esta revisión integradora de la literatura identificó diez instrumentos para evaluar las competencias esenciales para el liderazgo en enfermería. La comunicación fue identificada como una de las principales competencias alineadas con el rol de gerente. La toma de decisiones, las habilidades sociales, el manejo de equipos, la información actualizada y la gestión estratégica y financiera son elementos de suma importancia en el ejercicio gerencial y asistencial del enfermero, para que se establezca una relación armoniosa entre los líderes y quienes son conducidos en el proceso de trabajo.

**Palabras claves:** liderazgo; competencia profesional; enfermería.

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## Introduction

With globalization and scientific advances, health institutions and services are faced with increasingly demanding users and, to ensure quality of the care provided, they need more qualified workers with differentiated skills, who can meet the demands of the labor market. At the same time, in the national context there is a need to train health workers, especially nurses, so that they can assume new responsibilities linked to leadership behaviors, in addition to the essential competences to achieve the organizational goals in their work environment. <sup>(1)</sup>

In this context, the term “competence” refers to a basic set of knowledge, skills and attitudes in which professionals can effectively develop their job in relation to the required challenges. <sup>(2)</sup> On the other hand, leadership is a skill that involves interpersonal relationships, and the essential elements for the exercise of leadership are effective communication, decision-making and responsible and effective team management. <sup>(3)</sup>

In the health area, the Nursing team stands out as the largest professional category, representing from 60 % to 89 % of the health workforce. <sup>(4)</sup> Thus, it is important for nurses, responsible for leading this team, to keep constantly improving regarding the development of competencies related to leadership. <sup>(5)</sup>

In Brazil, according to the National Nursing Curriculum Guidelines, during nurses' training, it is indispensable to develop attributes essential to the profession and which are entirely associated with the role of a leader, namely: managerial vision, real-time decision-making, communication skills, planning of care and managerial actions, permanent education, problem-solving ability, emotional stability and good interpersonal relationship skills for the implementation of dynamic and active assistance. Nurses' performance and skills as leaders depend on their actions promoting good interpersonal relationships in the organization where they work. <sup>(3, 6)</sup>

The role of leadership in Nursing has recently been highlighted at the global level. The State of the World's Nursing 2020 report, by the World Health Organization in partnership with the International Council of Nursing (ICN), highlighted the importance of investments in public policies that value the profession, which is the largest health workforce, considering that nurses act as protagonists of health actions and, historically, are always on the front line in the fight against epidemics and pandemics that threaten the health of the population. The data presented in this document show the need for actions aimed at strengthening Nursing leadership in the professional practice, providing society with more quality in the care provided. <sup>(7)</sup>

In view of the above, it is considered as extremely important to identify the instruments adopted by health institutions to identify nurses' essential leadership

competencies, considering that the skills explained in the instruments reflect the organizational, managerial and care needs of Nursing services.

Thus, the objective of this study was to identify, in the literature, the instruments for assessing the skills required for leadership in Nursing.

### **Method**

This is an integrative literature review, which synthesizes and evaluates published studies using different methodologies, in an orderly manner, contributing to deepening on the topic.<sup>(8-9)</sup>

This integrative review went through six standardized stages for this type of study, namely: I) identification of the topic and elaboration of the guiding question; II) definition of inclusion and exclusion criteria for the studies selected; III) data extraction from the studies selected; IV) critical evaluation of the studies selected; V) interpretation of the results; and VI) presentation of the knowledge synthesis.<sup>(8)</sup>

The PICo acronym was used to formulate the research question, where P stands for the study population, I for the intervention or exposure, and Co for the context.<sup>(10)</sup> Consequently, the guiding question for this review was as follows: “Which are the instruments available in the literature that identify the skills required for leadership in Nursing?”.

The inclusion criteria corresponded to primary studies, with no publication time limit, which addressed evaluative instruments to identify nurses' leadership competencies, available in full in Portuguese, English and Spanish.

Data collection was conducted in October 2021, resorting to the following databases: Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS), Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Scopus. Table 1 shows the search strategy and the descriptors used.

**Table 1. Search string used in the databases to identify studies that address instruments for assessing the skills required for leadership in Nursing**

DATABASE	DESCRIPTORS	SEARCH STRATEGY	INITIAL NUMBER OF ARTICLES
CINAHL	Cinahl Headings	(Nurse OR Nurses OR Nursing) AND (Leadership) AND (Tool OR instrument OR measurement)	687
Scopus (Elsevier)	MeSH	(Nurse OR Nurses OR Nursing) AND (Leadership) AND (Tool OR Instrument OR Measurement)	387
LILACS	DeCS	(Enfermagem OR Enfermeiro) AND (Liderança) AND (Instrumento)	61

Source: Own elaboration (2021)

Secondary studies, letters to the editor, duplicates, proceedings, opinion and reflection texts, theses and dissertations, course conclusion papers, manuals, reports, books, book chapters and incomplete texts were excluded. The critical evaluation of the articles selected was based on the inclusion and exclusion criteria.

The Data from the studies were extracted using an instrument developed by the authors, with diverse information regarding country of publication, authors, year, journal, objective, and main results.

Presentation of the studies included in this review was carried out in a descriptive manner, by means of tables and charts. The analysis and discussion were synthesized in a narrative way.

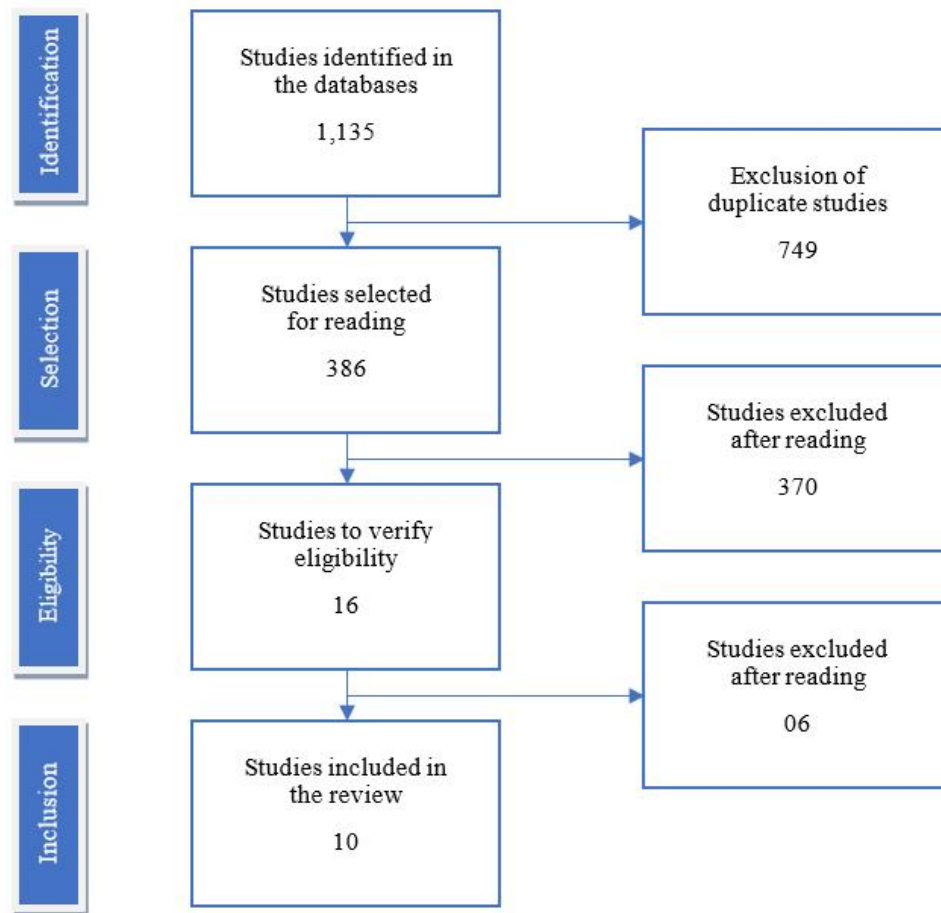
To classify the levels of evidence of the studies included, the seven-level pyramid was used, as follows: level 1 (strongest), evidence from a systematic review or meta-analysis of randomized clinical trials; level 2, evidence derived from well-designed randomized clinical trials; level 3, evidence obtained from well-designed clinical trials without randomization; level 4, evidence from well-designed cohort and case-control studies; level 5, evidence from a systematic review of descriptive and qualitative studies; level 6, evidence derived from a single descriptive or qualitative study; and level 7 (weakest), evidence from experts' opinions.<sup>(11)</sup>

For being a study that evaluated secondary data, approval by the Research Ethics Committee was waived. Nevertheless, this study followed all the ethical precepts in terms of research, referencing the studies selected.

## Results

Initially, the search strategy identified 1,135 studies in the databases. Of these, 749 were duplicates, leaving 386 for reading titles and abstracts. After the reading stage corresponding to the titles and abstracts, 370 studies were excluded for not meeting the inclusion criteria, such as: not being fully available, being written in languages other than English, Portuguese, or Spanish, or using other instruments that did not evaluate the competencies for leadership in Nursing. Six of the remaining 16 studies were excluded for

not meeting the research objective. Consequently, 10 studies were selected to comprise the current review. The search and selection process are represented by means of the flowchart recommended by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA),<sup>(12)</sup> as shown in Figure 1.



**Figure 1.** Flowchart corresponding to the studies selected to comprise the integrative review. Source: Own elaboration (2021)

Most of the studies referred to international publications.<sup>(13-20)</sup> The publication period was from 2008 to 2020. The year with the highest number of publications on the theme was 2019, totaling three studies.<sup>(14-16)</sup>

In relation to language, all the studies were published in English. Regarding the countries of origin, there was one from Ireland,<sup>(14)</sup> two from the United States of America,<sup>(15, 21)</sup> one from the United Kingdom,<sup>(18)</sup> one from Iran,<sup>(19)</sup> one from Brazil,<sup>(22)</sup> two from Sweden,<sup>(13,20)</sup> one from Spain<sup>(17)</sup> and one from Finland.<sup>(16)</sup>

The managerial positions were held by professionals who lacked previous experience or specialization in the management area. The investigations in all studies were based on the professional experiences of nurses and of the Nursing team, based on elaboration or

application of an instrument with the objective of identifying the competencies essential to leadership in Nursing.

The following instruments were identified in this review: Ambulance Nurse Competence (ANC);<sup>(13)</sup> Clinical Leadership Needs Analysis (CLeeNA) Instrument;<sup>(14)</sup> Kuopio University Hospital Transformational Leadership Scale (KUHTLS);<sup>(16)</sup> Cotter Preceptor Selection Instrument (CPSI);<sup>(21)</sup> Leadership Practices Inventory (LPI);<sup>(22)</sup> Advanced Practice Nursing Competency Assessment Instrument (APNCAI);<sup>(17)</sup> Multisource Feedback (MSF);<sup>(18)</sup> Performance Evaluation Tool;<sup>(19)</sup> Leadership and Management Inventory<sup>(20)</sup> and an instrument whose title was not informed by the authors, consisting of constructs to enable communication behaviors of Nursing leaders.<sup>(15)</sup>

Table 2 presents the characterization of the studies, as well as the objectives and main results.

**Table 2. Publications selected about the Instruments for assessing the skills required for leadership in Nursing**

Authors/Year/ Country/DOI	Title	Method/Level of evidence	Objective/ Instrument	Main results
Jan Nilsson, Susanne Johansson, Gun Nordström, Bodil Wilde-Larsson  2020  Sweden  DOI: 10.1016/j.jen.2019.07. 019	<i>Development and validation of the ambulance nurse competence scale</i>	Cross-sectional study  6	To develop and validate an instrument to measure the self- reported professional competence of Nursing students specialized in ambulance services and nurses specialized in pre- hospital care.  Instrument: Ambulance Nurse Competence (ANC) scale	The analyses resulted in the Ambulance Nurse Competence (ANC) scale, consisting of 43 items and encompassing 8 factors:  1. Nursing Care ( $n = 8$ ); 2. Value-based Nursing Care ( $n = 5$ ); 3. Medical Technical Care ( $n = 5$ ); 4. Care Environment's Community ( $n = 4$ ); 5. Care Environment's Serious Events ( $n = 8$ ); 6. Leadership Management ( $n = 3$ ); 7. Supervision and Professional Conduct ( $n = 4$ ); 8. Research and Development ( $n = 6$ ).  Except for Leadership Management, all the factors reached Cronbach's alpha values above 0.71, explaining 59.62 % of the total variance.
Mc Carthy, V., Murphy, A., Savage, E., Hegarty, J., Coffey, A., Leahy- Warren, P., Horgan, A., O'Connell, R., Marsh, L., & Drennan  2019  Ireland  DOI: 10.1111/jonm.12672	<i>Development and psychometric testing of the clinical leadership needs analysis (CLeeNA) instrument for nurses and midwives</i>	Cross-sectional study  6	To develop and validate the Clinical Leadership Needs Analysis (CLeeNA) instrument for nurses.  Instrument: Clinical Leadership Needs Analysis (CLeeNA)	The final instrument resulted in seven domains, namely:  1. Self and team development; 2. Support to the team members; 3. Use of technologies; 4. Financial management; 5. Leadership in the clinical practice; 6. Patient safety and risk management; 7. Standards of care adopted.  All the domains achieved validity as per Cronbach's alpha ( $<0.90$ ), with the possibility of application in any training program on institutional leadership

<p>Hopkinson, S. G., Oblea, P., Napier, C., Lasowski, J., &amp; Trego, L. L.</p> <p>United States of America</p> <p>2019</p> <p>DOI: 10.1111/jonm.12729</p>	<p><i>Identifying the constructs of empowering nurse leader communication through an instrument development process</i></p>	<p>Qualitative study</p> <p>6</p>	<p>To identify the constructs that characterize communication behaviors in nurse-leaders.</p> <p>Instrument: The authors failed to include a title for the instrument.</p>	<p>The instrument resulted in eight constructs:</p> <ol style="list-style-type: none"> <li>1. Understanding the message sent;</li> <li>2. Openness for dialog;</li> <li>3. Active listening during handoffs;</li> <li>4. Offering and receiving feedback to and from the direct reports;</li> <li>5. Empathy with the work team;</li> <li>6. Use of non-verbal language;</li> <li>7. Adequate tone of voice;</li> <li>8. Way to communicate with the team.</li> </ol> <p>The statistical tests showed that the instrument can be applied to any Nursing specialty.</p>
<p>Sapountzi-Krepia, D., Prezerakos, P., Zyga, S., Petrou, A., Krommydas, G., Malliarou, M., &amp; Charalambous, G</p> <p>2019</p> <p>Finland</p> <p>URL: <a href="http://www.internationaljournalofcaringsciences.org/docs/3_sapountzi_12_1.pdf">http://www.internationaljournalofcaringsciences.org/docs/3_sapountzi_12_1.pdf</a></p>	<p><i>Psychometric Properties of the Greek Version of the «Kuopio University Hospital Transformational Leadership Scale»</i></p>	<p>Methodological study</p> <p>6</p>	<p>To translate and validate the Greek version of the Hospital Transformational Leadership Scale (KUHTLS).</p> <p>Instrument: Kuopio University Hospital Transformational Leadership Scale (KUHTLS)</p>	<p>The instrument reached Cronbach's alpha = 0.95. Seven factors were analyzed:</p> <ol style="list-style-type: none"> <li>1. Decision: listens to the employees' opinions in decision-making;</li> <li>2. Appreciation: is friendly and respects the team;</li> <li>3. Development: motivates development in each employee by providing feedback;</li> <li>4. Justice: is fair in educational and work-related issues;</li> <li>5. Efficiency and Results: ensures the team's care quality at work;</li> <li>6. Individuality: adapts personal work to each employee;</li> <li>7. Leader's stance: shares points of view in collaboration with the team.</li> </ol> <p>Justice had the highest relevance, which indicates that the leadership style reflects in the work relationships at the institution.</p> <p>Use of the instrument contributes to understanding the factors that favor nurses' exercise of leadership.</p>
<p>Cotter, E., Eckardt, P., &amp; Moylan, L</p> <p>2018</p> <p>United States of America</p> <p>DOI: 10.1097/NND.0000000000000464</p>	<p><i>Instrument Development and Testing for Selection of Nursing Preceptor</i></p>	<p>Methodological study</p> <p>6</p>	<p>To develop and assess the psychometric properties of the Cotter Preceptor Selection Instrument (CPSI) when compared to the Proficiency Profile Self-Appraisal (PPSA) tool.</p> <p>Instrument: Cotter Preceptor Selection Instrument (CPSI)</p>	<p>The final instrument resulted in the assessment of 14 skills, namely:</p> <ol style="list-style-type: none"> <li>1. Provides Nursing care according to protocols;</li> <li>2. Documents the Nursing Process appropriately;</li> <li>3. Defines priorities at work and manages time;</li> <li>4. Applies critical thinking;</li> <li>5. Delegates tasks to the Nursing team;</li> <li>6. Applies the appropriate leadership style;</li> <li>7. Explains Nursing care;</li> <li>8. Collaborates with the team and communicates effectively;</li> <li>9. Provides "learning moments" to develop peers;</li> <li>10. Demonstrates problem-solving skills;</li> <li>11. Provides feedback to the direct reports;</li> <li>12. Demonstrates flexibility in adapting to the work plan;</li> <li>13. Objectively identifies strengths and weaknesses of self and others;</li> <li>14. Projects positive attitudes in the work environment.</li> </ol> <p>Item 8 (alpha: 0.68) was the most important item in the instrument.</p> <p>The instrument presented a Kappa Fleiss value (0.64) considered acceptable to assist in the process to select Nursing preceptors.</p>



Silva, S. L. V., Camelo, H. H. S., Soares, I. M., Resck, R. M. Z., Chaves, P., D. L., Santos, C. F., & Leal, A. L.	<i>Leadership Practices in Hospital Nursing: A Self of Manager Nurses</i>	Cross-sectional study  6	To assess the leadership practices implemented by nurses by means of the Leadership Practices Inventory (LPI) instrument.  Instrument: Leadership Practices Inventory (LPI)	The participants presented all five leadership practices, with “enable others to act” standing out with a mean of 50.6 %.  The instrument used had five domains, namely: 1. Enable others to act; 2. Encourage the heart: shows use of an approach and methods to motivate direct reports; 3. Model the way: tells people what they need to do and believes in their ideas; 4. Challenge the process: generates changes in the work environment; 5. Inspire a shared vision: motivates direct reports to develop a goal in their work.  The instrument also allows identifying the training needs in terms of the leadership practice.
2017	Brazil	DOI: 10.1590/S1980- 220X2016024403206		
Sastre-Fullana, P., Morales-Asencio, J. M., Sesé-Abad, A., Bennasar-Veny, M., Fernández- Domínguez, J. C., & De Pedro-Gómez, J.	<i>Advanced Practice Nursing Competency Assessment Instrument (APNCAI): clinimetric validation</i>	Methodological study  6	To describe the development and clinimetric validation of the Advanced Practice Nursing Competency Assessment Instrument (APNCAI).  Instrument: Advanced Practice Nursing Competency Assessment Instrument (APNCAI)	The final instrument resulted in eight domains:  1. Research- and Evidence-Based Practice; 2. Clinical and Professional Leadership; 3. Interprofessional Relationship and Mentoring; 4. Professional Autonomy; 5. Quality Management; 6. Care Management; 7. Teaching and Education assuming responsibility for professional learning; 8. Health Promotion (promotes autonomy and prevents risks).  The correlation between domains 1 and 2 was strong, whereas it was weak between domains 2 and 8.  An excellent value was obtained in the KMO test (0.96), and the Bartlett test was significant ( $p < 0.0001$ ). The instrument can support initiatives to outline and implement advanced Nursing practices.
2017	Spain	DOI: 10.1136/bmjopen- 2016-013659		
Lakshminarayana, I., Wall, D., Bindal, T., Goodyear, H. M.	<i>A multisource feedback tool to assess ward round leadership skills of senior pediatric trainees: Development of tool</i>	Methodological study  6	To assess the main leadership attributes during handoffs and use them to develop the Multisource Feedback (MSF) instrument.  Instrument: Multisource Feedback (MSF)	The instrument resulted in 13 dimensions (10 positive and three negative), as follows:  Positive 1. Communication; 2. Leadership skills; 3. Patient management; 4. Teamwork; 5. Organizational skills; 6. Time management and prioritization; 7. Punctuality; 8. Willingness to teach the direct reports; 9. Leader and team preparation; 10. Encourage participation of the team.  Negative 1. Difficulty maintaining good relationships with the direct reports; 2. Difficulty knowing the patients in depth; 3. Lack of empathy towards the patients.  Cronbach's alpha = 0.95.  The most frequent topic was communication to keep the team informed, keep the parents and family members updated, and effective handoffs.
2015	United Kingdom	DOI: 10.1097/NND.000000 0000000464		

Isfahani, H. M., Aryankhesal, A., & Haghani, H. 2014 Iran DOI: 10.5539/gjhs.v7n2p38	<i>The relationship between the managerial skills and results of "performance evaluation" tool among nursing managers in teaching hospitals of Iran University Medical Science</i>	Cross-sectional study 6	To assess the relationship between nurses' managerial skills and performance in university hospitals by means of the Performance Evaluation Tool.  Instrument: Performance Evaluation Tool	No correlation was found between managerial skills and the performance assessment (p>0.05). The participants confirmed validity of the instrument as a good tool to assess nurses' performance.  The seven skills evaluated were the following:  1. Decision-making; 2. Communication; 3. Time management; 4. Strategic thinking; 5. Systematic thinking; 6. Leadership; 7. Motivation.  The "decision-making" skill obtained a mean of 2.8 (out of 5 points), being considered the best.
Skytt B, Carlsson M, Ljunggren B, Engström M. 2008 Sweden DOI: 10.1111/j.1365-2834.2008.00912.x	<i>Psychometric testing of the Leadership and Management Inventory: a tool to measure the skills and abilities of first-line nurse managers</i>	Cross-sectional study 6	To estimate validity and reliability of the Leadership and Management Inventory for nurses.  Instrument: Leadership and Management Inventory	The skills identified in the instrument showed high reliability and validation with Cronbach's Alpha values varying between 0.88 and 0.96 in both samples for the following factors in increasing order:  1. Interpersonal skills and group management; 2. Guidance to perform activities; 3. Overall organizational view of the hospital's functions, rules and laws.  The instrument can be used to assess the managerial and leadership skills of nurses and other professionals, as well as to identify the needs for future training.

Source: Own elaboration (2021)

## Discussion

The analysis of all ten studies showed that the use of different evaluative instruments is important to identify competencies necessary for nurses' leadership. These tools can be divided into three large groups that are directed at “assisting, leader's behavior, and care management”.<sup>(6)</sup>

In this review, four instruments classified in the “care management” category were obtained within this classification, namely: Ambulance Nurse Competence (ANC) scale; Clinical Leadership Needs Analysis (CLeeNA) Instrument; Advanced Practice Nursing Competency Assessment Instrument (APNCAI); and Leadership and Management Inventory; six tools comprised the “leader's behavior” category: Kuopio University Hospital Transformational Leadership Scale (KUHTLS); Cotter Preceptor Selection Instrument (CPSI); Multisource Feedback (MSF); Performance Evaluation Tool; and Leadership Practices Inventory (LPI); and one instrument did not have its title informed by the authors.

Care management is part of the leadership process, as well as one of the nurses' duties. Care planning, as well as its organization, should aim at achieving better care practices in the health services, with actions that favor comprehensive and quality care, through forecast and provision of essential resources for care.<sup>(23)</sup>

Among the competencies necessary for care management, the following stand out: teaching, organizational skills, updated information, readiness for analysis and decision-

making, organization and delegation of functions, care and time management, as well as prioritization of activities and financial management. <sup>(24)</sup>

The most relevant skills in this group observed in the current review were as follows: decision-making, care management, having information, and being strategic. <sup>(14)</sup>

These competencies are evidenced in the study on the Clinical Leadership Needs Analysis (CLeeNA) Instrument. <sup>(14)</sup> The results showed that the most important competencies for the nurse-leaders participating in this study were those related to technology, finance, and service management. With globalization, many technological tools and instruments are used by nurse-leaders and contribute to the management process, optimizing work organization.

In addition to that, knowledge and skills in financial management are increasingly necessary for nurses who have been gaining space in higher instances of the health services. <sup>(25)</sup>

Nurse-leaders must enable the best care conditions for the patients and ensure the professionals' best performance possible. These conditions can be observed in the Ambulance Nurse Competence (ANC) scale, <sup>(13)</sup> which among the items evaluated contains patient-centered care, teamwork and collaboration, fundamental requirements for nurses working in pre-hospital services that need rapid and effective action.

In the Leadership and Management Inventory instrument <sup>(20)</sup> decision-making was the skill that was considered most important in nurse-leaders' evaluation. Decision-making requires instrumentalization of managerial tools and administrative theories that can facilitate and support the nurse-leaders' decisions, achieving effectiveness in the results of their decisions. <sup>(26)</sup>

The competencies from the "leader's behavior" category encompass the dimensions inherent to the attitudes that nurses must have, such as punctuality, preparation, motivation, social skills, collaboration, enthusiasm, and support to those led, among others. <sup>(18)</sup>

Among these competencies, social skills stand out, as they constitute an evaluative attribute of a successful behavior or set of behaviors, as they are important to exercise leadership because they contribute to professional development combining care management with care practices. <sup>(27)</sup>

The social communication skill is essential for nurses, both in care development and in the leadership process. Communication consists in understandability, active listening, openness, feedback, empathy, non-verbal language, para-language and cooperation. <sup>(15)</sup>

Among the forms of communication, writing is the most used in the care management process, followed by oral communication, used strategically for fast transmission of a message to inform, guide, and carry out the planning of actions, which are indispensable for conflict resolution. <sup>(28)</sup>

It is noted that the instrument called Leadership Practices Inventory (LPI) <sup>(22)</sup> presented the "Enable others to act" dimension as the most relevant among the behavioral competencies of social skills that nurse-leaders must possess.

In this perspective, nurses should provide their team with opportunities that enable them to effectively perform care, through permanent education actions and practical examples during daily management of the patient/family, in addition to encouraging and allowing teamwork, winning the collaboration of all. <sup>(22, 29)</sup>

The Cotter Preceptor Selection Instrument (CPSI) <sup>(21)</sup> and the Performance Evaluation Tool <sup>(19)</sup> also addressed that the main competencies for nurse-leaders are those guided in the behavioral area, which are the collaboration and interpersonal skills, respectively.

Therefore, social and interpersonal skills, as well as collaboration, constitute a set of behaviors with high potential to produce reinforcing consequences for the individual and for the other members of the Nursing team.<sup>(30)</sup>

Another competence considered relevant and highlighted in the articles evaluated was the ability to lead the team, observed in the study by Sapountzi-Krepia et al.,<sup>(13)</sup> who used the Kuopio University Hospital Transformational Leadership Scale (KUHTLS), and in the paper by Lakshminarayana et al.,<sup>(18)</sup> through the Multisource Feedback (MSF) instrument. The ability to lead is one of the main competencies for nurses to develop, as it is considered inherent to the professional practice.

Thus, it is up to the leader to stimulate creativity of the direct reports, allow them to participate in decision-making processes and adapt to each situation imposed on them, to achieve qualification of the Nursing services.<sup>(31)</sup>

It is noted that care management and leadership in Nursing are fundamental in nurses' professional practice, through planning and organization actions to guarantee their continuity and confer sustainability to the institution's policies and strategic guidelines.<sup>(6)</sup>

The relevance of this review consists in showing that, using an evaluation instrument, managers can identify the necessary competencies for leadership in Nursing that must be sought and developed in nurses' professional practice. This demonstrates the managers' responsibility to develop strategies for the personal and professional growth of the leaders who work in their staff, as well as for the Nursing team to meet the main demands of those they lead.

A limitation of this study was the lack of studies that use instruments to assess nurses' managerial competence not only at the hospital level, but also in Primary Health Care and at other health care levels, so that these skills can be equated and articulated according to the needs of the services.

## Conclusion

This integrative literature review identified ten instruments to assess the essential competencies for leadership in Nursing.

Communication was identified as one of the main skills aligned to the manager's role. Decision-making, social skills, team management, up-to-date information and strategic and financial management are elements of paramount importance in nurses' managerial and care exercise, to establish a harmonious relationship between leaders and those led in the work process.

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