Workplace skills in the healthcare sector in Latin America between 2020 and 2024: a systematic review

Competencias laborales en el sector salud en LATAM entre 2020 y 2024: una revisión sistemática

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Abstract

This study addresses the evolution of workplace skills in the Latin American healthcare sector during the period 2020-2024, in a context marked by a structural crisis and technical inequalities revealed by the COVID-19 pandemic. Its purpose is to analyze previous evidence and research on the subject in the Latin American context. The methodology used was a systematic review of the literature using the PRISMA method, examining academic articles in five search engines: Scopus, Scielo, and Google Scholar, in three languages (Spanish, English, and Portuguese). The results indicate a balance between qualitative and quantitative approaches, with a predominance of descriptive and exploratory designs, evidencing the heterogeneous nature and the need for characterization of the topic in the region studied. The implementation of clinical simulation and tele simulation to close educational gaps, together with the integration of emerging skills such as digital literacy and interculturality, are some of the most notable training strategies. In conclusion, comprehensive management of job skills has proven to be a fundamental tool for ensuring the safety of health services and the sustainability of human talent, in a context that incorporates the demands of digital transformation. However, standardizing assessment and filling gaps in curricula in the region studied still presents significant challenges.

Keywords: digital literacy, job skills, Latin America, health sector.

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Resumen

Este estudio aborda la evolución de las competencias laborales en el sector salud de Latinoamérica durante el periodo 2020-2024, en un contexto marcado por una crisis estructural y las desigualdades técnicas reveladas por la pandemia de COVID-19. Su propósito tuvo como objetivo analizar las evidencias e investigaciones previas sobre el tema en el contexto latinoamericano. La metodología empleada fue una revisión sistemática de la literatura utilizando el método PRISMA para examinar artículos académicos en cinco buscadores: Scopus, Scielo y Google Scholar, en tres idiomas (español, inglés y portugués). Los resultados indican un equilibrio entre los enfoques cualitativos y cuantitativos, con un predominio de diseños descriptivos y exploratorios, evidenciando la naturaleza heterogénea y la necesidad de caracterización del tema en la región estudiada. La implementación de la simulación clínica y la telesimulación para cerrar brechas educativas, junto con la integración de competencias emergentes como la alfabetización digital y la interculturalidad son algunas de las estrategias formativas más destacadas. En conclusión, la gestión integral de competencias laborales ha demostrado ser una herramienta fundamental para garantizar la seguridad de los servicios de salud y la sostenibilidad del talento humano en un contexto que incorpora las exigencias de la transformación digital. Sin embargo, la estandarización de la evaluación y la cobertura de vacíos curriculares en la región estudiada aún presentan desafíos significativos.

Palabras clave: alfabetización digital, competencias laborales, Latinoamérica, sector salud.

Introduction

The contemporary challenge of professional capacities within the global healthcare sector is framed by persistent workforce shortages, deficiencies in training for workforce sustainability, and challenges surrounding equitable distribution and migration, according to the Global Strategy on Human Resources for Health report (World Health Organization [WHO], 2024). As a direct consequence, both the quality and equity of service delivery are compromised, subsequently generating high costs for users and imposing significant financial strain on healthcare systems.

The healthcare sector in Latin America faces a structural crisis in the development and management of professional competencies among its workforce. First, there is a lack of sustained financing and budgetary prioritization for formal training, capacity building, and continuous professional development. Furthermore, professional training curricula remain misaligned with real-world healthcare needs. Additionally, recent health emergencies—such as the COVID-19 pandemic—exposed preexisting disparities in the technical capacities of personnel and their limited adaptability within local contexts. Aggregated, this insufficiency and inequality in workforce competencies constitute a bottleneck that impedes both the progressive expansion of service coverage and the enhancement of its quality (Pan American Health Organization [PAHO], 2023)

The assessment of workforce competencies in healthcare requires comprehensive and practical methodologies (Navarro et al., 2025). Within this context, clinical simulation has been consolidated as a key tool for validating practical skills (Mercado et al., 2022), whereas tele simulation has proven effective in closing educational gaps (Castillo et al., 2024). The expansion of remote care now demands the development of new competency domains, including digital literacy, ethics, data

security, and virtual communication (Ibarra et al., 2024). However, significant challenges remain in curricular design. On one hand, there is a clear lack of training in palliative care and emotional coping strategies (Paixão et al., 2020). On the other hand, the invisibility of disaster risk management competencies within nursing curricula is highly evident (Sánchez et al., 2024). Vaillard et al. (2021) propose holistic assessment models to identify disruptions between theoretical instruction and clinical practice. Likewise, there is a demonstrated need for specific measurement instruments to standardize the performance of pharmaceutical personnel (Ceballos et al., 2021).

According to Del Pozo (2017), professional competencies are comprised of three categories. Basic competencies serve as the foundation; transversal competencies act as an intermediate support structure; and specific competencies—which distinguish each professional field—represent the visible branches. Basic competencies are those fundamental to functioning in society and performing within any work environment (Tobón, 2005). These are shared by a collective group of individuals within an organization, such as a professional family, business unit, or department. Furthermore, they are transferable across a multitude of functions, tasks, and different organizations (López & Ruiz, 2021). Regarding specific professional cohorts, classification can be approached from a dual perspective: according to the medical specialty or field of knowledge, and in accordance with the functions or roles performed (Alles, 2017). Healthcare workforce competencies maintain an integral nature achieved through the identification and development of specific professional capabilities. In Cuba, a workforce competency system has been implemented that establishes functional maps for medical specialties, classifying them into generic and specific competencies (Perea et al., 2013).

This study was grounded in the necessity to overcome the misalignment between academic training and healthcare reality in Latin America—a structural gap widened by the health emergency, which brought technical inequalities to light. Its relevance lies in providing evidence for the standardization of evaluative criteria and the integration of emerging competencies, such as digital literacy and interculturality, which are indispensable elements for ensuring patient safety and the sustainability of human talent in the region.

In response to this problem, the general objective of this research was to analyze workforce competencies within the healthcare sector of Latin America (LATAM) between 2020 and 2024. To achieve this goal, the study established the specific objective of analyzing the conceptual premises, methodologies, and conclusions of the reviewed articles on this subject. Accordingly, this research sought to answer the following question: What is the current status and evolution of workforce competencies within the healthcare sector in Latin America?

Methodology

This study was conducted by means of a systematic review focusing on workforce competencies within the Latin American healthcare sector. Adhering to the PRISMA guidelines, rigorous inclusion criteria were applied for source selection. These criteria required that publications be: i) written in Spanish, English, or Portuguese; ii) published between 2020 and 2024; and iii) applied within the Latin American context. Additionally, articles were required to be directly related to the healthcare sector and available for full-text download. Documents that met the formal criteria but did not provide relevant information aligned with the study objectives were excluded.

The review focused on articles published within the Latin American (LATAM) region, spanning a specific time frame delimited between 2020 and 2024. The search was performed in Spanish, English, and Portuguese, utilizing a total of fifteen keyword combinations (five per language) structured with the Boolean operators “OR” and “AND”. The keyword combinations utilized in Spanish included “competencias laborales en salud” (A1), “competencias clínicas” (A2), “competencias profesionales en salud” (A3), “habilidades labo-

rales en salud" (A4), y "habilidades profesionales en salud" (A5); en inglés: "health work competencies" (A6), "clinical competencies" (A7), "core competencies in health" (A8), "health care skills" (A9), y "professional skills in healthcare" (A10); and in Portuguese: "competências profissionais na área da saúde" (A11, A13), "competências clínicas" (A12), "habilidades profissionais na área da saúde" (A14), y "capacidades de trabalho na área da saúde" (A15).

Following an exhaustive screening process, out of the initial 106,110 records, 4,142 articles were identified as meeting the established geographical boundaries. Ultimately, after the eligibility assessment, 25 articles were selected to comprise the definitive sample for the systematic review. The PRISMA method was utilized to achieve a comprehensive understanding of the fundamental methodological and procedural elements required in conducting systematic reviews. According to Urrútia and Bonfill (2010), this method integrates innovative conceptual and methodological components into its design, which are closely aligned with current trends in the field of systematic reviews. The 25 studies making up the final sample were subjected to a detailed, in-depth analysis. This process aimed to ensure a thorough evaluation of the data linked to the study's research objectives.

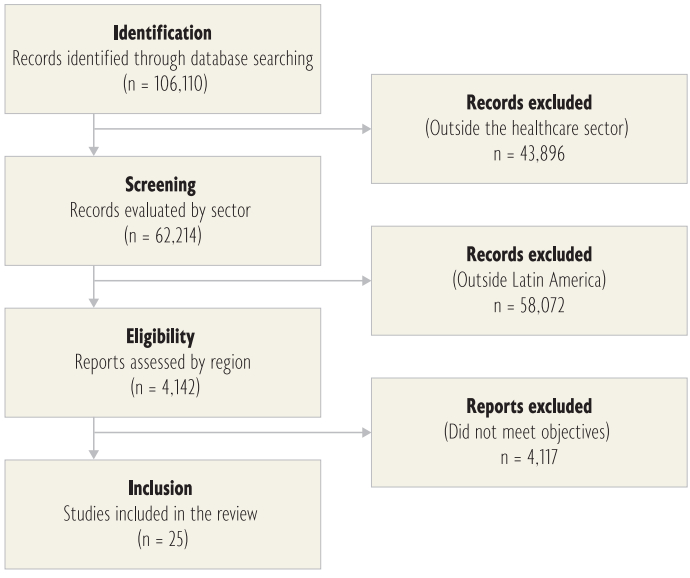

Figure 1.
Prisma Review Process
Note: Adapted from Urrutia & Bonfill (2010)

Although the initial search data for keyword combinations are listed for Scopus (A), Google Scholar (B), and SciELO (C), the source only provides the aggregate total flow of articles that transitioned through each screening stage. The first stage, designated as "Identification," consisted of compiling all references retrieved by employing the different search strings. The second stage concerned the thematic scope of the proposed article; the third stage pertained to the geographic delimitation of the authors; the fourth stage involved the accessibility of the research article; and, finally, the fifth stage defined whether the article contributed to the proposed analysis. These stages are detailed in accordance with Page et al. (2021). Therefore, Table 1 was constructed using the aggregate data from the three databases, which represents the only numerical breakdown of stage-by-stage screening available in the source:

Table 1.
Data Sources and Systematic Review Phases

Database	First	Segunda etapa	Tercera etapa	Cuarta etapa	Quinta etapa
Scopus	75,000	51,897	1,428	1,016	15
Google Scholar	30,700	10,000	2,500	10	1
Scielo	410	317	214	139	9
Total	106,110	62,214	4,142	1,165	25

Note: Adapted from Page et al. (2021).

A mixed-methods analysis approach was applied to evaluate the 25 selected articles. On one hand, a descriptive quantitative analysis was conducted by extracting frequencies and percentages to systematize bibliometric and methodological variables (country of origin, study approach, scope, and research instruments). On the other hand, a qualitative content analysis was performed to extract, categorize, and synthesize the conceptual premises regarding workforce competencies, as well as the primary conclusions of each study, thereby enabling an answer to the central research question.

Results

General

The implementation of the PRISMA method in the systematic review process resulted in a corpus of 25 research articles linked to the proposed topic and the established objectives. These studies were distributed across the databases as follows: Google Scholar (1), SciELO (9), and Scopus (15). Table 2 details the authors, year of publication, and study region, segmented by search engine.

Table 2.
Artícles included in the review

Database	Author, year	Country
Google Scholar	Álvarez et al. (2023)	Ecuador
Scielo	Silva et al. (2024)	Brasil
Scielo	Menegaz et al. (2024)	Brasil
Scielo	Montero et al. (2024)	México
Scielo	Mora et al. (2024)	Colombia
Scielo	Vera et al. (2024)	Perú
Scielo	Geraldi et al. (2022)	Brasil
Scielo	Roderjan et al. (2021)	Brasil
Scielo	Cadena et al. (2020)	Colombia
Scielo	Guadalupe et al. (2024)	Perú
Scopus	Madariaga et al. (2024)	Colombia
Scopus	Contreras y Pérez (2024)	Chile
Scopus	Hechenleitner et al. (2024)	Chile
Scopus	Carrer et al. (2024)	Brasil
Scopus	Gutiérrez et al. (2024)	Chile
Scopus	Souza et al. (2024)	Brasil
Scopus	Hechenleitner et al. (2024)	Chile
Scopus	Legua et al. (2024)	Perú
Scopus	Beltrán et al. (2023)	Chile
Scopus	Aguila et al. (2024)	Chile
Scopus	Ferreira et al. (2024)	Brasil
Scopus	Holanda et al. (2022)	Brasil
Scopus	Xavier et al. (2021)	Brasil
Scopus	Costa et al. (2020)	Brasil
Scopus	Crocamo y Benatuil (2021)	Argentina

Based on the analysis, it can be concluded that Brazil comprises the largest portion of the studied sample, accounting for 40.0% (10) of the articles. The second most represented Latin American country in the sample is Chile, to which 24.0% (6) of the academic articles are attributed. Both Colombia and Peru present a similar contribution, with 12.0% (3) each. Finally, Argentina, Ecuador, and Mexico complete the distribution, each representing 4.0% (1) of the academic articles.

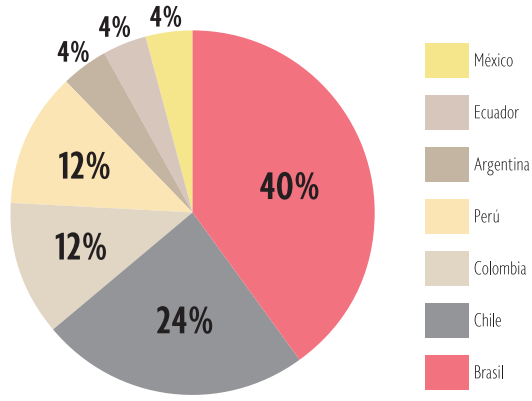

Figure 2.
Distribution of Academic Articles by Country of Origin

Conceptual Premises

Workforce competencies in healthcare are defined as the dynamic and holistic integration of knowledge ("knowing"), skills and abilities ("knowing how to do"), and attitudes and values ("knowing how to be"), which empower professionals to resolve health problems autonomously, flexibly, and ethically within diverse clinical settings (Pinilla, 2012; Martínez, 2016). Structurally, this construct is articulated across three interdependent dimensions: basic competencies, understood as the fundamental and transferable resources necessary for performance and integration into any socio-labor environment; transversal competencies, which comprise intermediate skills shared across different healthcare disciplines—such as effective communication, teamwork, professionalism, and bioethics—essential for collaborative and humanized practice; and specific competencies, which delineate professional identity by encompassing the technical knowledge, methods, and clinical procedures distinctive and exclusive to each healthcare occupation (Inzunza, 2008; Hernández et al., 2018).

The scope of workforce competencies in healthcare focuses on the capacity to mobilize these resources to guarantee ideal clinical performance (Vázquez, 2010). In this regard, occupational competence does not constitute a static state but rather a process of continuous construction and refinement, thereby aligning individual objectives with the needs of both the healthcare system and the population (Montero et al., 2009).

Table 3.
Authors' Definitions of Healthcare Workforce Competencies

Author, Year	Theoretical References	Definition
Álvarez et al. (2023)	Moudatsou (2020)	Soft skills play a fundamental role in the fulfillment of job functions, enabling workers to focus on the tasks to be developed and to act appropriately when facing emerging situations.
Silva et al. (2024)	Perrenoud (1999)	Care is an inherent social practice that serves as the guiding thread of healthcare delivery; competence is defined as the capacity to mobilize knowledge into action (knowing, knowing-how-to-do, knowing-how-to-be).
Menegaz et al. (2024)	Brandão (2017)	Competence is evidenced by adequate performance to satisfy organizational needs, mobilizing knowledge, skills, and attitudes (KSA) that generate positive outcomes.
Montero et al. (2024)	Tristán (2008)	The transversal competence of the Clinical Tutor corresponds to indispensable cognitive resources (interpersonal communication, mentorship, and teaching) to guide the learning process of specialized care.
Madariaga et al. (2024)	Stake (1998)	A constructivist epistemological paradigm that assumes learning is experiential and situated, which is necessary to develop technical and socio-emotional competencies in ECMO therapy.
Contreras y Pérez (2024)	Pozos et al. (2018)	Educators' digital competence is a set of skills and strategies to effectively and critically utilize digital technologies, integrating them into pedagogical practice through didactic, curricular, and methodological loops.
Hechenleitner y Ibarra (2024)	McCord et al. (2024)	The effective implementation of telehealth depends on the integration of technology with clinical knowledge and interdisciplinary collaboration to ensure equitable and patient-centered care.
Carrer et al. (2024)	Cassiani et al. (2018)	A care management competency model for Advanced Practice Nurses (APNs) based on a three-dimensional framework: focus on care, assessment and diagnosis, and care delivery.
Gutiérrez et al. (2024)	World Health Organization (2020)	A Digital Health Reference Competency Model that organizes 103 competencies into 9 domains for Healthcare Decision-Makers (HDMs) to address digital transformation.
Souza et al. (2024)	Brandão (2017)	Competencies are identified within the context of the National Primary Care Policy (PNAB, by its Portuguese acronym) and border singularities (floating populations), requiring situational diagnosis and cultural competence.
Hechenleitner et al. (2024)	Association of American Medical Colleges (2021)	Telehealth competencies encompass knowledge, skills, and attitudes (e.g., "professional excellence," "remote clinical approach") to deliver quality care in digital environments.
Legua et al. (2024)	Marquina et al. (2022)	The interaction between scientific production and clinical nursing competencies is key, based on care practice supported by the generation of new knowledge.
Mora et al. (2024)	Starfield (2018)	PHC is a strategy characterized by the principles of comprehensiveness, coordination, and longitudinality, requiring both specific (clinical and administrative) and soft skills.
Vera et al. (2024)	Nejašmić et al. (2020)	Evidence-Based Medicine (EBM) integrates current evidence, clinical expertise, and patient information; its application depends on knowledge and overcoming barriers.
Beltrán et al. (2023)	Walsh (2008)	Intercultural competencies to understand otherness; the intercultural ethical approach promotes reducing inequalities and guaranteeing dignified health through dialogue.
Geraldi et al. (2022)	Page et al. (2021)	Professional competencies are developed for comprehensive actions, requiring specific competencies (e.g., causal nexus) for worker health in PHC.
Roderjan et al. (2021)	Harden (1990)	The OSCE enables the standardized assessment of predetermined clinical competencies (interaction, recognition, conduct, follow-up) through simulation.

Cont.

Author, Year	Theoretical	Definición
Aguila et al. (2024)	Interprofessional Education Collaborative Expert Panel (2011)	Interprofessional education defined across 5 competencies: teamwork, roles, conflict resolution, leadership, and interprofessional communication.
Cadena et al. (2020)	Paredes (2014)	The professional profile determines the competencies for job performance (clinical, administrative, commercial) and the ability to solve problems in changing environments.
Guadalupe et al. (2024)	Robbins y Judge (2013)	Human talent management (strategic resource utilization) and workforce competencies (capabilities for effective performance) are interrelated and impact the quality of care.
Ferreira et al. (2024)	Troncon (2004)	The OSCE is a valid and reliable test to evaluate clinical skills (reasoning, interaction) in realistic simulated situations.
Holanda et al. (2022)	Holanda y Cunha (2019)	Clinical Competence in emergencies as the capacity to provide humanized care with professional excellence; measured through latent dimensions.
Xavier et al. (2021)	Dempsey y Battel (2011)	The CompHP project establishes core competencies (9 dimensions) to design effective actions in health promotion.
Costa et al. (2020)	Allegrante et al. (2009)	The Galway Consensus establishes eight core competency domains (e.g., catalyzing change, leadership, planning) for the effective practice of health promotion.
Crocamo y Benatuil (2021)	Crocamo (2019)	Defines 7 core clinical competencies (diagnosis, interventions, therapeutic bond, etc.) and 5 associated indicators for the practice of psychotherapy.

Note: The definitions presented in this table correspond to a paraphrased synthesis developed by the authors, based on the conclusions and theoretical frameworks of the cited sources; therefore, their full references are available in the original documents and not included in the bibliographic list of this review.

According to the review, it was evidenced that the author utilized as a reference by Silva et al. (2024) represents the most solid philosophical foundation, defining competence from the standpoint of the individual and action as the mobilization of knowledge (knowing, doing, being). This approach is replicated across nearly all other perspectives.

The adoption of emerging competencies (digital, telehealth) required for adaptation to new technological environments and care modalities is accelerating, representing the fastest-growing areas expedited by the pandemic. Furthermore, the importance of soft skills (digital knowledge) and intercultural skills is recognized as core workforce competencies in healthcare.

Strategies and Methodology Employed

Table 4 describes the methodology utilized in each study, including elements such as the approach, scope, the instrument employed, and the unit of analysis.

Table 4.
Results regarding methodology

Author(s) and Year	Methodological Approach	Scope of the Study	Instrument Used	Unit of Analysis
Álvarez et al. (2023)	Qualitative	Descriptive	Observation and unstructured interview	Healthcare professionals (hospital staff)
Silva et al. (2024)	Qualitative	Descriptive	Interview	Documents; Educators; Medical staff
Menegaz et al. (2024)	Quantitative	Descriptive	Interview	58 nurses
Montero et al. (2024)	Quantitative	Descriptive	Interview	95 clinical tutors
Madariaga et al. (2024)	Qualitative	Exploratory	Interview	9 ECMO nurses

CONT.

Author(s) and Year	Methodological Approach	Scope of the Study	Instrument Used	Unit of Analysis
Contreras y Pérez (2024)	Qualitative	Descriptive	Content Analysis	Theoretical frameworks
Hechenleitner y Ibarra (2024)	Qualitative	Descriptive	Focus group	14 healthcare professionals from various disciplines
Carrer et al. (2024)	Mixed	Exploratory	Observation (video)	28 nurses and 203 patients from 17 primary care units
Gutiérrez et al. (2024)	Qualitative	Descriptive	Focus group	61 professionals, including 27 clinical users, 12 Information and Communication Technology specialists, and 22 Digital Health experts
Souza et al. (2024)	Qualitative	Exploratory	Questionnaire	64 nurses from six Brazilian municipalities bordering Paraguay
Hechenleitner et al. (2024)	Mixed	Exploratory	Focus group	A focus group was conducted (n=14) for the qualitative phase, and a scale (survey) was administered for the quantitative phase with n=48 (convenience sampling)
Legua et al. (2024)	Quantitative	Correlational	Questionnaire	248 nurses working at a specialized institute
Mora et al. (2024)	Qualitative	Descriptive	Interview	9 healthcare professionals: 3 physicians, 5 nurses, and 1 psychologist
Vera et al. (2024)	Quantitative	Cross-sectional	Questionnaire	1,396 physicians
Beltrán et al. (2023)	Qualitative	Descriptive	Content Analysis	Initial training of health sciences professionals
Geraldi et al. (2022)	Qualitative	Exploratory	Interview	25 participants (14 educators and 11 professionals)
Roderjan et al. (2021)	Quantitative	Cross-sectional	Checklist	270 checklists administered to 90 students
Aguila et al. (2024)	Quantitative	Descriptive	Questionnaire	312 students from 6 health programs at a private Chilean university
Cadena et al. (2020)	Quantitative	Descriptive	Questionnaire	140 surgical technology professionals from the Department of Boyacá
Guadalupe et al. (2024)	Quantitative	Correlational	Questionnaire	100 healthcare staff participants
Ferreira et al. (2024)	Quantitative	Descriptive	Questionnaire	51 undergraduate physiotherapy students
Holanda et al. (2022)	Quantitative	Descriptive	Questionnaire	Nurses and clinical nurses
Xavier et al. (2021)	Mixed	Exploratory	Interview	31 educators
Costa et al. (2020)	Qualitative	Descriptive	Interview	7 professionals involved in the care of patients with tuberculosis
Crocamo y Benatuil (2021)	Quantitative	Exploratory	Questionnaire	534 Argentine psychotherapists

After analyzing the methodological approaches of each of the studies included in the analysis, it can be concluded that a single paradigm does not predominate; instead, there is a balance between qualitative and quantitative approaches. Specifically, both approaches each represent 44% of the total sample. This indicates that nearly the same number of studies opted for a methodology based on numerical data and statistical analysis (quantitative) as for one centered on depth, context, and meanings (qualitative). For its part, the mixed-methods approach, which combines both perspectives, is employed by 12% of the research studies.

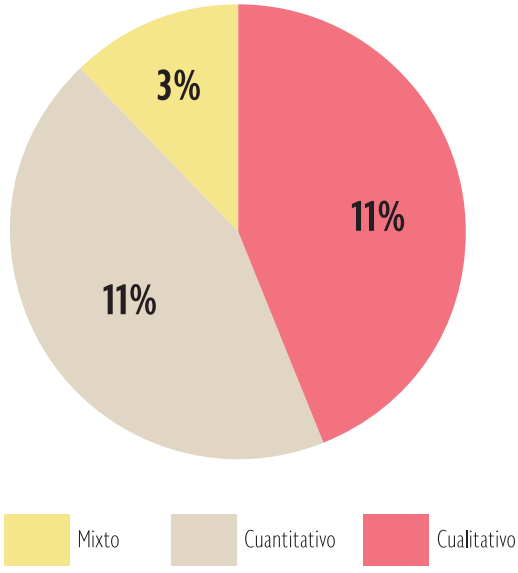

Figure 3.
Percentage distribution by approach

Table 4 details the distribution of the analyzed articles based on the research design employed. The authors, for the most part, opted for a descriptive design, which accounts for the vast majority with fourteen (14) studies. Following in frequency, the exploratory design occupies the second position with seven (7) studies. Rounding out the final positions are the correlational and cross-sectional designs, both with two (2) studies each. This indicates a marked trend toward descriptive and, secondarily, exploratory designs.

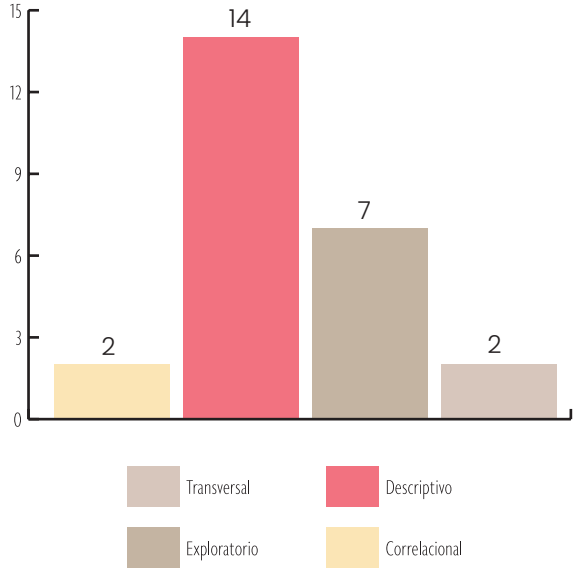

Figure 4.
Scope of Research

The research instruments employed, along with the frequency of each with respect to the sample, are evidenced in Figure 5. The predominant research instrument was the questionnaire, which allows for the collection of standardized data from a large sample. This instrument occupies the leading position with eleven (11) studies. In second place, with six (6) studies, is the interview, used to delve deeper into individual perspectives and experiences. Other instruments utilized include focus groups, which were employed in three (3) studies. Likewise, content analysis and the combination of observation with unstructured interviews were used in two (2) studies, respectively. Finally, checklists were the least frequent instrument, with one (1) study. This diversity of instruments reflects the heterogeneous approach required to study occupational competencies in healthcare.

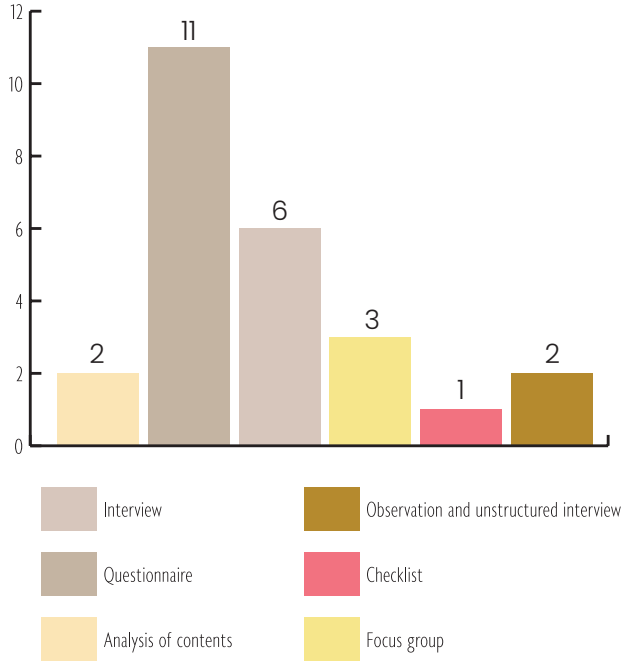

Figure 5.
Research Instruments

Regarding the units of analysis, these represent the specific groups, individuals, documents, or elements that were the object of study in each piece of research. The sample encompasses a wide diversity of actors and approaches specific to the healthcare field. Several studies took large groups of professionals as their units of analysis, such as 1,396 physicians, 248 nurses from a spe-

cialized institute, or 534 psychotherapists, in order to obtain representative quantitative data. Others focused on more specific and delimited cohorts, such as 140 surgical technology professionals from the Department of Boyacá, 64 nurses from Brazilian municipalities bordering Paraguay, or a focus group of 14 professionals complemented by a survey administered to 48 participants.

These studies seek a deep understanding of particular contexts. Groups in training were also analyzed, such as 312 students from 6 health programs or 90 students evaluated through 270 checklists, to examine competency development during the educational process. Finally, some studies adopted non-personal units of analysis, such as documents or theoretical frameworks, to conduct conceptual or content analyses

Conclusions of the Reviewed Articles

The conclusions of the analyzed studies demonstrate that the evolution of occupational competencies in the Latin American healthcare sector between 2020 and 2024 presents a varied and changing landscape. Therefore, to improve the quality of healthcare systems in the region, curricular and training methods must include not only technical skills but also transversal competencies. Table 5 synthesizes the conclusions found.

Table 5.
Conclusions of the Reviewed Articles

Author	Year	Conclusion
Álvarez et al. (2023)	2023	It is concluded that the implementation of soft skills in healthcare professionals constitutes a necessity to enhance their job performance.
Silva et al. (2024)	2024	Evaluative processes, especially those of a formative nature, focusing on technical and scientific competencies integrated with ethical and humanistic attitudes, were central to the assessment of competencies for comprehensive care during the internship period.
Menegaz et al. (2024)	2024	Subjectivity was evidenced in the evaluation and self-evaluation processes of professional nursing competencies. Most identified competencies belonged to managerial and clinical care groups, and convergence was observed between the performance evaluations conducted by service heads and the professionals' own self-evaluations.
Montero et al. (2024)	2024	The study objective was achieved by describing the level of transversal competence and identifying strengths and opportunities regarding the transversal competence of clinical tutors in the PUEE.
Madariaga et al. (2024)	2024	These findings suggest the need for standardized educational programs in ECMO that integrate technical, practical, and socio-emotional competencies and address variability across both formal and informal programs.
Contreras y Pérez (2024)	2024	The effective integration of digital competencies into the training of future nursing professionals can profoundly transform educational practice while improving the quality of care.
Hechenleitner y Ibarra (2024)	2024	Interdisciplinary collaboration is essential for the success of telehealth, facilitating care adapted to patients' needs and promoting equity in health.
Carrer et al. (2024)	2024	This study identified limitations in nursing consultations for acute events within Primary Health Care (PHC) settings, particularly regarding the execution, documentation, and appropriation of the nursing process, with low compliance in several key elements.
Gutiérrez et al. (2024)	2024	The digital transformation of healthcare requires specialized competencies among health decision-makers. The Digital Health Referential Competency Model provides a structured framework to guide the effective implementation and management of digital health initiatives.
Souza et al. (2024)	2024	The study identified the skills necessary for nurses to work in border regions but highlighted gaps in their training and continuing education.
Hechenleitner et al. (2024)	2024	The proposed competencies are suitable for telehealth, emphasizing the need for continuous evaluation and training.
Legua et al. (2024)	2024	Nursing research output is limited by factors related to research support. Furthermore, scientific production can be strengthened by identifying its relationship with the competencies required to conduct research.

CONT.

Author	Year	Conclusion
Mora et al. (2024)	2024	Practicing in Primary Health Care requires specific competencies for both clinical care and administrative management, as well as scientific, ethical, and humanistic knowledge, together with soft skills such as leadership, collaborative work, decision-making, and conflict resolution.
Vera et al. (2024)	2024	Although most surveyed physicians possess good knowledge and a positive attitude toward Evidence-Based Medicine (EBM), barriers and information-use practices that require improvement still exist.
Beltrán et al. (2023)	2023	In the initial training of health sciences professionals, deficiencies regarding an intercultural approach were observed due to practices centered on instrumental and technocratic rationality, as well as the legitimization of monocultural practices characteristic of Western Eurocentric culture.
Geraldi et al. (2022)	2022	The identification of general and specific professional competencies for occupational healthcare proved highly relevant for building comprehensive and humanized care within interprofessional education and practice.
Roderjan et al. (2021)	2021	Throughout the analyzed period, the Objective Structured Clinical Examination (OSCE) revealed a progressive increase in final grades, raising both the median score and the percentage of correct responses in simulated emergency situations.
Aguila et al. (2024)	2024	The questionnaire demonstrated adequate psychometric properties for evaluating self-perceived clinical competencies acquired through interprofessional simulated practice.
Cadena et al. (2020)	2020	Regarding occupational profiles in surgical technology in Boyacá, professionals working in the clinical care area predominate.
Guadalupe et al. (2024)	2024	Human talent management and occupational competencies are strongly related among the healthcare personnel studied, highlighting the importance of effective strategies to improve quality of care.
Ferreira et al. (2024)	2024	The application of the OSCE provided experiences with clinical cases of appropriate complexity in an organized manner, concluding with an enriching final evaluation.
Holanda et al. (2022)	2022	Visual identity and standardization operationalize the use of the scale among professionals interested in the subject.
Xavier et al. (2021)	2021	The educational process in the analyzed programs has fostered the development of competencies for health promotion.
Costa et al. (2020)	2020	The presence of several competency domains was identified in the discourse of healthcare professionals, highlighting essential competencies for health promotion activities, such as catalyzing change and leading the monitoring of patients with tuberculosis.
Crocamo y Benatuil (2021)	2021	The value of the ECCBP lies in being an instrument specifically designed for the local population, transtheoretical in nature, and tailored to psychotherapy, with potential applicability to other similar sociocultural contexts.

The content analysis of the 25 articles reveals significant coincidences regarding training demands in the region. There is a widespread consensus on the need to transition toward a comprehensive education that articulates technical knowledge with soft, ethical, and humanistic skills (Álvarez et al., 2023; Silva et al., 2024; Mora et al., 2024). Likewise, multiple authors agree on the relevance of incorporating digital and telehealth competencies as a fundamental pillar in the face of technological transformation (Contreras & Pérez, 2024; Gutiérrez et al., 2024; Hechenleitner et al., 2024). In the evaluative field, several studies agree that standardized tools, such as the Objective Structured Clinical Examination (OSCE), are effective and reliable for measuring practical skills in simulated environments (Roderjan et al., 2021; Ferreira et al., 2024).

Regarding differences and divergences, the literature exposes contrasts in the maturity and practical application of competencies depending on the context. While some areas celebrate standardization, research such as that by Menegaz et al. (2024) evidences a persistent subjectivity in staff evaluation processes. Furthermore, the level of preparedness when dealing with diverse populations is heterogeneous; authors such as Beltrán et al. (2023) and Souza et al. (2024) point out marked deficiencies in intercultural competencies and in

addressing border zones or primary care. Finally, the identified barriers vary considerably by discipline, ranging from operational shortcomings in conducting consultations (Carrer et al., 2024) and attitudinal barriers toward evidence-based medicine (Vera et al., 2024), to structural limitations due to a lack of institutional support for research (Legua et al., 2024).

Discussion

The evaluation of occupational competencies in healthcare indicates a trend toward the standardization of clinical and professional criteria at an international level, according to Porcel et al. (2011) and Villén et al. (2024). The development of validated instruments has significantly revolutionized performance measurement in both nursing and medicine, as highlighted by Holanda et al. (2018) and Pérez and Cruz (2025). Direct observation and reflection tools are essential for enhancing practical skills and documenting learning (Fernandez, 2011; Gutiérrez et al., 2024). On the other hand, the detection of null or low competencies in primary care demands the urgent implementation of educational interventions (Cabrera et al., 2017). Nonetheless, nuances exist in the perception of performance, such as a higher valuation of ethics and responsibility over technical skills (Giménez et al., 2017). In summary, a consensus is observed regarding the importance of validating objective and agreed-upon instruments to guarantee patient safety and healthcare quality. However, it is necessary to address both training deficiencies in prevalent pathologies and the humanistic dimension to maximize the benefits of training. Evaluation strategies must be comprehensive, uniting technical knowledge with interpersonal and ethical attributes to meet the demands of current healthcare systems.

Despite the significant findings, this study presents certain limitations. First, the search was restricted to three databases (Scopus, SciELO, and Google Scholar) and a specific geographical context (Latin America), which might exclude relevant evidence indexed in other global clinical repositories such as PubMed or Web of Science. Second, the marked predominance of descriptive and exploratory studies in the analyzed sample limited the possibility of conducting a meta-analysis or establishing direct causal relationships regarding the effectiveness of the evaluated competencies.

Based on these limitations, it is suggested that future studies expand database coverage and incorporate longitudinal, experimental, or correlational methodological designs. Likewise, it is imperative to develop empirical research that measures, over the long term, the real impact that emerging competencies (such as digital literacy and interculturality) have on healthcare quality and patient safety.

Conclusions

Based on the evaluated elements, it is concluded, first, that the most relevant scientific evidence on the topic in Latin America is concentrated in Brazil (40%) and Chile (24%). The Scopus database proved to be the primary repository for these studies, indicating a regional effort to publish in high-impact journals.

Second, regarding the most frequently utilized methodological approaches, it is concluded that there is no predominant paradigm, but rather an exact balance between qualitative (44%) and quantitative (44%) approaches. However, descriptive and exploratory designs based on questionnaires strongly prevail, which evidences that the study of healthcare competencies in the region is still in an initial stage of mapping and characterization.

Finally, the logic structuring the evolution of these competencies is the transition toward comprehensive management. It is concluded that curricula and healthcare institutions are merging traditional technical knowledge with transversal and digital skills. The adoption of telesimulation and digital literacy are no longer complementary options, but indispensable articulating elements to address healthcare crises and guarantee patient safety.

References

Aguila, B., Roco, A., Paredes, P., Lara, A., y Espinoza, M. E. (2024). Validation of a self-assessment questionnaire of clinical competencies acquired in intrahospital simulated clinical practice. *Salud, Ciencia y Tecnología, 4*, 1105. https://doi.org/10.56294/saludcyt20241105

Alles, M. (2017). Desempeño por competencias. Evaluación de 360º (3.a ed.). Ediciones Granica.

Álvarez, M. E., Mendoza, Y. A., Macias, E. X., y Arellano, O. E. (2023). Las habilidades blandas y su rol en el rendimiento laboral de los profesionales de la salud. *Revista Cubana de Reumatología, 25*(4), 10. https://revreumatologia.sld.cu/index.php/reumatologia/article/view/1261

Beltrán, J., Tereucán, J., Alarcón, A. M., Gálvez, J. L., y Vera, N. (2023). Competencias interculturales desde un enfoque ético intercultural en la formación inicial de profesionales en ciencias de la salud. *Un desafío ineludible. Acta bioethica, 29*(2), 177-183. https://doi.org/10.4067/S1726-569X2023000200177

Cabrera, C. E., Zavala, M. A., y Covarrubias, M. D. L. Á. (2017). Clinical competencies for primary health care of climacteric in a group of Mexican physicians. *Reprodução y Climatério, 32*(1), 15-18. https://doi.org/10.1016/j.recli.2016.10.002

Cadena, Á. A., Numpaque, A., y Pardo, D. F. (2020). Perfiles ocupacionales de los profesionales en Instrumentación Quirúrgica del departamento de Boyacá, Colombia (2017). *Revista Investigaciones Andina, 22*(40). https://doi.org/10.33132/01248146.1583

Carrer, M. O., De Almeida, L. Y., Vesga-Varela, A. L., Bonfim, D., De Almeida, P. A., Barreto, C. P., De Farias Serranegra, N. V., Reis, K. G. L., Martiniano, C. S., y Miranda Neto, M. V. (2024). Acute Events in Primary Health Care Settings: An Analysis of Advanced Practice Competencies in Nursing Consultations in Brazil. *Nursing Open, 12*(7), e70247. https://doi.org/10.1002/nop2.70247

Castillo, A. R., Librado, N., Sánchez, H. A., Nicolas, M., Urueña, C., & Felipe, L. (2024). Competencias clínicas en estudiantes de pregrado en enfermería para la atención al trabajo de parto: Estudio cuasiexperimental. *Revista Cuidarte, 15*(3). https://doi.org/10.15649/cuidarte.3679

Ceballos, J. M., Salazar Ospina, A., y Amariles Muñoz, P. (2021). Revisión, diseño y construcción de un instrumento de medición para evaluar las competencias laborales del personal farmacéutico ambulatorio. *Salud UIS, 53*(1). https://doi.org/10.18273/saluduis.53.e:21027

Contreras, J., y Pérez, C. (2024). Competencias digitales en la formación de profesionales de enfermería: Reflexiones sobre modelos teóricos, integración y desafíos. *Horizonte de enfermeria, 36*(2), 799-808. https://doi.org/10.7764/Horiz_Enferm.36.2.799-808

Costa, A. D. F. A., Gomes, A. M. F., Fernandes, A. F. C., Silva, L. M. S. D., Barbosa, L. P., y Aquino, P. D. S. (2020). Professional skills for health promotion in caring for tuberculosis patients. *Revista Brasileira de Enfermagem, 73*(2), e20180943. https://doi.org/10.1590/0034-7167-2018-0943

Crocamo, L. N., y Benatuil, D. (2021). Escala de competencias clínicas básicas para psicoterapeutas (ECCBP). Construcción y fiabilidad para Argentina. Interdisciplinaria. *Revista de Psicología y Ciencias Afines, 39*(1), 57-76. https://doi.org/10.16888/interd.2022.39.1.4

Del Pozo, J. (Ed.). (2017). *Competencias profesionales; herramientas de evaluación: El portafolios, la rúbrica y las pruebas situacionales* (3.a ed.). NARCEA EDICIONES.

Fernandez, G. (2011). Evaluación de las competencias clínicas en una residencia de pediatría con el Mini-CEX (Mini-Clinical Evaluation Exercise). *Archivos Argentinos de Pediatria, 109*(4), 314-320. https://doi.org/10.5546/aap.2011.314

Ferreira, I. T. P., Sabela, A. K. D. D. A., Junqueira, A., Honório, J. P. P., Freitas, C. E. A. D., Freire, A. P. C. F., y Pacagnelli, F. L. (2024). Assessment of clinical skills in cardiovascular physiotherapy: Objective Structured Clinical Examination (OSCE). *Fisioterapia Em Movimento, 37*, e37128. https://doi.org/10.1590/fm.2024.37128

Geraldi, L., Miranda, F. M. D., Silva, J. A. M. D., Appenzeller, S., y Mininel, V. A. (2022). Competências profissionais para a atenção à saúde do trabalhador. *Revista Brasileira de Educação Médica, 46*(2), e071. https://doi.org/10.1590/1981-5271v46.2-20210469

Giménez, N., Alcaraz, J., Gavagnach, M., Kazan, R., Arévalo, A., y Rodríguez-Carballeira, M. (2017). Profesionalismo: Valores y competencias en formación sanitaria especializada. *Revista de Calidad Asistencial, 32*(4), 226-233. https://doi.org/10.1016/j.cali.2016.11.001

Guadalupe, K. S. G., Pinedo, D. A. M., Morales, C. D., Castillo, E. F., Alfaro, C. E. R., y Márquez, C. R. (2024). Gestión del talento humano y competencias laborales del personal de salud de un hospital en

Perú. *Revista de Ciencias Médicas de Cienfuegos, 22*(4), http://medisur.sld.cu/index.php/medisur/article/view/45206

Gutiérrez, S., Torres, V., Molina, Ma. M., y Härtel, S. (2024). Digital Health Competencies: Core to Effective Health Sector Leadership. En J. Mantas, A. Hasman, P. Gallos, E. Zoulias, y K. Karitis (Eds.), *Studies in Health Technology and Informatics*. IOS Press. https://doi.org/10.3233/SHTI250782

Hechenleitner, M., y Ibarra, J. (2024). Interdisciplinarity in the Effectiveness of Telehealth: Challenges, Opportunities, and Necessary Competencies. *Data and Metadata, 4*, 542. https://doi.org/10.56294/dm2025542

Hechenleitner, M., Ibarra, J., Zúñiga, C., Avendaño, A., y Sepúlveda, E. (2024). Proposal of Competencies in Telehealth: A Mixed-Methods Study in the Biobío Region, Chile. *Data and Metadata, 3*. https://doi.org/10.56294/dm2024.399

Hernández, R. R., Díaz, A. A. D., Izquierdo, V., y Hernández, B. M. R. (2018). Las competencias profesionales específicas en la formación de los especialistas en Medicina General Integral. *Educación Médica Superior, 32*(1), 130-140. http://scielo.sld.cu/pdf/ems/v32n1/13_1188.pdf

Holanda, F. L. D., Marra, C. C., y Cunha, I. C. K. O. (2018). Assessment of professional competence of nurses in emergencies: Created and validated instrument. *Revista Brasileira de Enfermagem, 71*(4), 1865-1874. https://doi.org/10.1590/0034-7167-2016-0595

Holanda, F. L. D., Marra, C. C., Meireles, E. C. D. A., Balsanelli, A. P., y Cunha, I. C. K. O. (2022). Lilalva Scale: Soft-hard technology to measure clinical competencies in emergencies of nurses. *Revista Brasileira de Enfermagem, 75*(5), e20210950. https://doi.org/10.1590/0034-7167-2021-0950

Ibarra, J., Monje, C., Martín, C. Z.-S., y Hechenleitner, M. (2024). Macrodominios de competencias en telesalud de los profesionales del área de la salud. *Revista Médica Clínica Las Condes, 35*(5-6), 393-399. https://doi.org/10.1016/j.rmclc.2024.05.014

Inzunza, O. (2008). Competencias Generales en Medicina, Rol de la Anatomía. *International Journal of Morphology, 26*(2). https://doi.org/10.4067/S0717-95022008000200001

Legua, J. D., Pando, A. K., Meneses, M. E., Morales, W. C., Cabanillas, M. T., y Morales, M. (2024). Indicators Associated with Scientific Production and Competencies in Clinical Nurses at a Specialized Institute, Lima-Peru. *Salud, Ciencia y Tecnología, 4*, 809. https://doi.org/10.56294/saludcyt2024809

López, S., y Ruiz, E. (2021). *Operaciones administrativas de recursos humanos, grado medio* (Actualizado a la legislación laboral vigente). McGraw-Hill/Interamericana de España SL.

Madariaga, M., Moreno, F., y Vergel, J. (2024). Nurses' Experiences in the ECMO Training Process: A Qualitative Study. *Revista Cuidarte, 16*(3). https://doi.org/10.15649/cuidarte.4605

Martínez, P. L. V. (2016). La necesidad de identificar las competencias profesionales en el Sistema Nacional de Salud. *Revista Cubana de Salud Pública, 42*(1), 484-486. http://scielo.sld.cu/pdf/rcsp/v42n3/spu15316.pdf

Menegaz, J. D. C., Barros, A. C. L., Oliveira, S. M., Pontes, D. A. F. D. S., Chaves, L. D. P., y Camelo, S. H. H. (2024). Hospital nurse competencies: Convergences and divergences in evaluation. *Acta Paulista de Enfermagem, 37*, eAPE001645. https://doi.org/10.37689/acta-ape/2024ao000016455

Mercado, E., Bautista-Rodríguez, G., Vera-Olguín, A. S., y Esperón-Hernández, R. I. (2022). Evaluación de competencias clínicas a través de telesimulación: Una alternativa para exámenes de altas consecuencias. *Investigación en Educación Médica, 11*(44), 23-33. https://doi.org/10.22201/fm.20075057e.2022.44.22438

Montero, J., Rojas, M. P., Castel, J., Muñoz, M., Brunner, A., Sáez, Y., y Scharager, J. (2009). Competencias médicas requeridas para el buen desempeño en Centros de Salud Familiares en Chile. *Revista médica de Chile, 137*(12). https://doi.org/10.4067/S0034-98872009001200003

Montero, R., González, G., y Ponce, G. (2024). Competencias transversales del tutor clínico de las especializaciones en Enfermería: Resultados de la autoevaluación. *Horizonte Sanitario, 23*(2), 369-375. https://doi.org/10.19136/hs.a23n2.5822

Mora, R. B., Villalobos, G. E., y Mosquera, I. Y. (2024). Competencias del profesional de la salud en la Atención Primaria de Salud. *Revista Cubana de Medicina General Integral, 40*. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21252024000100021&lng=es&tlng=es

Navarro, A., Soto-Aguilera, C. A., Mondragón-Pineda, A. I., Alpuche-Hernández, A., García-Durán, R., Pilar-Díaz, M., Cerritos, A., y Ortíz-Montalvo, A. (2025). Método Integral de Evaluación de Competencias Médicas Profesionales (MIDECOMP) del examen profesional FacMed, UNAM. *Investigación en Educación Médica, 14*(55), 97-108. https://doi.org/10.22201/20075057e.2025.55.24665

OMS. (2024, diciembre 20). Estrategia Mundial de Recursos Humanos para la Salud: Personal Sani-

tario 2030. OMS. https://apps.who.int/gb/ebwha/pdf_files/EB156/B156_15-sp.pdf

OPS. (2023, agosto 2). Política sobre el personal de salud 2030: Fortalecimiento de los recursos humanos para la salud a fin de lograr sistemas de salud resilientes. https://www.paho.org/sites/default/files/2025-01/politica-2030-espanol-final.pdf

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Alonso-Fernández, S. (2021). Declaración PRISMA 2020: Una guía actualizada para la publicación de revisiones sistemáticas. *Revista Española de Cardiología, 74*(9), 790-799. https://doi.org/10.1016/j.recesp.2021.06.016

Paixão, S., Aparício, G., Duarte, J., y Maia, L. (2020). Cuidados paliativos pediátricos: Necessidades formativas e estratégias de coping dos profissionais de saúde. *Revista Portuguesa de Enfermagem de Saúde Mental,* (7). https://doi.org/10.19131/rpesm.0247

Perea, R., Diaz, L., y Pérez, G. (2013). Identificación y diseño de las competencias laborales en el Sistema Nacional de Salud. *Educación Médica Superior, 27*(1), 92-102. https://ems.sld.cu/index.php/ems/article/view/119/75

Pérez, A., y Cruz, L. (2025). Elaboración y validación de un instrumento para evaluar competencias del médico residente ante pacientes con diabetes gestacional. *Salud Uninorte, 41*(2), 489-498. https://doi.org/10.14482/sun.41.02.245.158

Pinilla, A. E. (2012). Aproximación conceptual a las competencias profesionales en ciencias de la salud. *Revista de Salud Pública, 14*, 852-864. https://www.scielosp.org/pdf/rsap/2012.v14n5/852-864/es

Porcel, J. M., Casademont, J., Conthe, P., Pinilla, B., Pujol, R., y García-Alegría, J. (2011). Competencias básicas de la medicina interna. *Revista Clínica Española, 211*(6), 307-311. https://doi.org/10.1016/j.rce.2011.03.003

Roderjan, A. K., Gomel, B. M., Tanaka, A. A., Egg Neto, D., Chao, K. B., y Nisihara, R. M. (2021). Competências clínicas do aluno de medicina em urgência e emergência: Análise evolutiva através do OSCE. *Revista Brasileira de Educação Médica, 45*(4), e193. https://doi.org/10.1590/1981-5271v45.4-20210178

Sánchez, H. E., Olivella-Fernández, M. C., y Núñez-Rodríguez, M. L. (2024). Coherencia y pertinencia curricular de la formación en emergencias y desastres en programas de enfermería. *Hacia la Promoción de la Salud, 28*(2), 91-106. https://doi.org/10.17151/hpsal.2023.28.2.7

Silva, P. H. B. D., Zambelli, J. D. C., Barros, L. C. N. D., y Oliveira, E. S. F. D. (2024). Práticas Integrativas e Complementares para promoção de saúde na Atenção Primária na Região Metropolitana de Goiânia. *Physis: Revista de Saúde Coletiva, 34*, e34038. https://doi.org/10.1590/s0103-7331202434038pt

Souza, E. N. D. C. D., Fabriz, L. A., Peres, A. M., y Almeida, M. D. L. D. (2024). Competency mapping of primary healthcare nurses on the Brazil-Paraguay border. *Revista Gaúcha de Enfermagem, 45*, e20230098. https://doi.org/10.1590/1983-1447.2024.20230098.en

Tobón, S. (2005). *Formación basada en competencias: Pensamiento complejo, diseño curricular y didáctica* (2a ed., Vol. 1). Ecoe Ediciones.

Urrútia, G., y Bonfill, X. (2010). Declaración PRISMA: Una propuesta para mejorar la publicación de revisiones sistemáticas y metaanálisis. *Medicina Clínica, 135*(11), 507-511. https://doi.org/10.1016/j.medcli.2010.01.015

Vaillard, E., Martínez Arróniz, F., y Huitzil Muñoz, E. E. (2021). Propuesta de un modelo de evaluación para competencias clínicas del estomatólogo. *Investigación en Educación Médica, 10*(38), 51-58. https://doi.org/10.22201/fm.20075057e.2021.38.20324

Vázquez, F. D. (2010). Competencias profesionales de los pasantes de enfermería, medicina y odontología en servicio social en México. *Revista Panamericana de Salud Pública, 28*(4), 298-304. https://www.scielosp.org/pdf/rpsp/2010.v28n4/298-304/es

Vera, V., Torres, J., Talavera, J., Zuzunaga, F., y De La Cruz, J. (2024). Actitudes, uso, barreras y conocimientos sobre la medicina basada en la evidencia según el nivel de atención. *Revista Cubana de Información en Ciencias de la Salud, 35*. https://acimed.sld.cu/index.php/acimed/article/view/2335

Villén, T., Campo, R., Alonso, J. R., Martínez, R., Luque, M. J., Ruiz Durán, M., Oviedo García, A., Álvarez Gregori, J. A., Aguilar Mulet, M., Campos Caubet, L., Cárdenas Bravo, L., Chaparro Pardo, D., Chehayeb Morán, J., Esteban Velasco, J. V., Ferreiro Gómez, M., García Martín, D., García Suárez, I., Martínez Hernández, A., Hernández Galán, Á., … Nogué Bou, R. (2024). *Description of basic competencies in clinical ultrasound imaging for emergency departments.* Emergencias. https://doi.

org/10.55633/s3me/E029.2022

Xavier, S. P. L., Machado, L. D. S., Moreira, M. R. C., Martins, Á. K. L., y Machado, M. D. F. A. S. (2021). Professional competencies to promote health in nursing and physical education undergraduate courses. *Revista Brasileira de Enfermagem, 74*(2), e20200617. https://doi.org/10.1590/0034-7167-2020-0617