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SYSTEMATIC REVIEW

Core and Advanced Competencies of Emergency Nurses: A Scoping Review

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ABSTRACT

Introduction: Competent emergency nurses are essential for delivering safe and effective care in the complex and unpredictable environment of emergency departments (EDs). However, competency standards for emergency nurses vary across regions, creating confusion and inconsistency. This scoping review aims to map and synthesize the literature on emergency nurse competencies globally, identifying both core and advanced competencies across various healthcare settings. **Materials and methods:** The review followed the Joanna Briggs Institute (JBI) scoping review methodology, with a systematic search conducted across PubMed, Scopus, and ProQuest databases. Articles published between 2004 and February 2024 were screened based on predefined inclusion and exclusion criteria. Studies involving emergency nurse competencies in EDs were selected, and data were extracted and synthesized into key competency domains. **Results:** From 21 eligible studies conducted across nine countries, six essential competencies for emergency nurses were identified: clinical expertise, personal performance, communication abilities, professional growth, teamwork, and ethical/legal professionalism. Furthermore, three advanced competencies were highlighted: management and leadership, research and quality assurance, and healthcare delivery systems. The analyzed literature encompassed mixed-methods, cross-sectional, qualitative, and cohort study designs, emphasizing the diverse skill set needed in emergency nursing, ranging from core caregiving to leadership and system oversight. **Conclusion:** The identified competencies underscore the importance of developing contextually-appropriate competency frameworks, particularly for resource-limited settings. Policymakers and healthcare educators in low- and middle-income countries (LMICs) can utilize these findings to guide competency-based training and improve emergency care while considering local resource constraints.
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Keywords: Competencies, Emergency nurses, Scoping review

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INTRODUCTION

Skilled nurses are critically essential for the efficient operation of emergency rooms (ERs), which are characterized by complexity and unpredictability (1–3). Establishing clear competency standards for ER nurses is vital for providing safe and effective emergency care services (4,5). As frontline providers and the largest segment of the healthcare workforce, ER nurses significantly shape the quality of hospital healthcare services (6). Their responsibilities include early detection of life-threatening conditions, prompt intervention, and continuous care of critically ill patients (7). Given that ERs are primary settings for treating severely injured patients, it is crucial that nurses in these areas possess the necessary competencies (8). Unlike other nursing environments, ER nurses must rapidly adapt to critical scenarios and deliver care with both speed and precision, highlighting the unique demands of their role (9).

The ER serves as the primary gateway for patients entering the hospital, acting as the first point of assessment where the community expects reliable service and assurance,

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thereby fostering trust in the institution. Insufficient skills among ER nurses can lead to diminished patient satisfaction. Research indicates that patients frequently report negative experiences in the ER due to inadequate information, extended wait times, ineffective pain management, and limited involvement in treatment decisions—all of which heighten anxiety levels (10). Patients admitted to inpatient units express greater satisfaction compared to those who receive care solely in the ER, attributed to longer treatment durations (11). Furthermore, patients visiting the ER on weekends report higher satisfaction due to reduced wait times, while those seeking care in the afternoon and evening report lower satisfaction, likely due to increased patient volume and the closure of outpatient services (12,13). The relationship between patient satisfaction and the quality of ER services is significantly influenced by nurse competence, interpersonal staff dynamics, and ER attributes such as cleanliness and technological resources (14). Therefore, to enhance patient satisfaction by prioritizing safety and evidence-based clinical practices, competent and standardized emergency nurses are needed (9,15–17).

The topic of competencies for ER nurses has gained considerable attention in several developed nations, including the USA, UK, Canada, New Zealand, and Australia. These countries have implemented competency standards that encompass five key areas: clinical expertise, communication, teamwork, resource management, and legal considerations (18). Various assessment tools have been developed to evaluate ER nurse competencies, such as the Core Competence Evaluation Standards for Emergency Nurse Specialists (CCESENS) (19) and the Lilalva Scale for Measuring Clinical Competencies in Emergencies of Nurses (20,21). Competencies are typically divided into two categories: professional and clinical (22). Professional competence covers ethical standards, healthcare regulations, decision-making skills, ongoing professional development, and collaborative abilities, while clinical competence focuses on compliance with clinical guidelines and the execution of effective nursing interventions (23,24).

However, significant variations exist in how these competencies are defined and implemented across different countries. A comparative analysis of emergency nursing standards across different countries revealed that while Australia, Canada, New Zealand, the UK, and the US share common competency domains (clinical expertise, communication, teamwork, resources and environment, and legal aspects), there are substantial differences in required expertise levels and implementation (18). These variations are evident in the role of Emergency Nurse Practitioners (ENPs), where countries like the UK, Australia, and New Zealand face distinct challenges in regulation and standardization of practice scope, despite similar role definitions (25).

The diversity in emergency care delivery is further illustrated by operational differences: Australian emergency departments demonstrate higher annual patient census and longer median lengths of stay compared to similar facilities in the Netherlands and Denmark (26). Even triage systems vary by region, as evidenced by the differences between the French Emergency Nurse Classification in Hospital (FRENCH) scale and the American Emergency Severity Index (ESI) (27). The impact of specialized training is particularly notable in developing nations; for instance, in Ghana, emergency-certified nurses demonstrated higher perceived competency across multiple domains compared to general nurses, emphasizing the crucial role of specialized emergency nursing education (5).

Despite these advancements, much of the previous research has not thoroughly examined the competencies of ER nurses in both developed and developing nations, nor has it sufficiently explored the spectrum of expertise from novice to expert among ER nurses. Although there is a consensus from Australia that outlines competency levels based on Patricia Benner's Novice to Expert framework, the literature lacks a comprehensive global perspective on emergency nurse competencies and their categorization by expertise levels (28). This gap underscores the need to map the competencies of emergency nurses in various contexts and analyze the roles of both basic and advanced emergency nurse competencies.

Furthermore, emergency care in low- and middle-income countries (LMICs) faces substantial infrastructure limitations that significantly impact emergency nursing practice. These constraints include inadequate prehospital care systems, with over 91% of the African population lacking access to formal emergency medical services; severe transportation challenges resulting in extended prehospital times; critical shortages of trained emergency personnel; persistent medical supply chain disruptions; underdeveloped coordination mechanisms; and severe financial constraints limiting investment in emergency care infrastructure (29–31). These systemic limitations necessitate context-specific competencies for emergency nurses in resource-constrained settings, emphasizing resourcefulness and adaptability. Understanding these infrastructure challenges is essential for developing realistic and implementable competency frameworks tailored to the unique demands of emergency nursing in LMICs (32–34)

This review, therefore, holds particular significance for lower and middle-income countries (LMICs) and resource-limited settings, where emergency nursing standards are often underdeveloped or adapted from high-resource contexts without adequate consideration of local constraints. By distinguishing between core competencies (essential for all emergency nurses regardless of context) and advanced competencies (which

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may be prioritized differently depending on resource availability), this review offers a nuanced approach to competency development that acknowledges healthcare system heterogeneity.

The primary motivation for conducting this scoping review stems from the significant global inconsistency in emergency nurse competency standards, which has created substantial challenges for practice standardization, educational program development, and quality assurance in emergency care delivery. While various competency frameworks exist in developed nations such as the USA, UK, Canada, New Zealand, and Australia, these standards exhibit considerable heterogeneity in their conceptualization, structure, and implementation. Rather than proposing a single universal standard, this review aims to establish a comprehensive understanding of both core and advanced competencies that can inform context-specific adaptation and implementation.

Review Question

This scoping review aimed to consolidate the latest global insights on emergency nurse competencies and classify these competencies by levels of expertise. The primary question guiding the review was, "What are the core and advanced competencies necessary for emergency nurses?" A scoping review was selected as the methodology because it facilitates the synthesis of diverse study designs, making it particularly useful for informing program and policy development. This approach offers a comprehensive summary of existing literature on emergency nurse competencies, supporting the creation of standardized competency frameworks and training programs worldwide.

MATERIALS AND METHODS

Protocol and Registration

This scoping review follows a predefined protocol registered on the Open Science Framework (OSF) under the registration (https://osf.io/xd2ut). The protocol outlines the objectives, methodology, and the review's process.

Eligibility Criteria

This scoping review employed the PCC (Population, Concept, Context) framework to guide the selection of eligible studies.

Population

The review focused on emergency nurses as defined by jurisdictional regulatory authorities. This includes nurse practitioners, registered nurses (with various classifications such as clinical nurse specialists and advanced practice nurses), and second-level nurses such as licensed practical nurses, practical nurses, and enrolled nurses. Studies were included if they involved nurses working in emergency departments. However, studies focusing on non-nurses, including medical emergency service providers and other healthcare professionals, were excluded from the review.

Concept

The central concept of interest was competencies in emergency nursing. Competency-related activities included but were not limited to, organized emergency nurse competencies such as standard competencies, clinical competencies, clinical skills, technical expertise, scope of practice, clinical regulation, standards of practice, and instruments for measuring competencies. Studies that specifically addressed the development, assessment, or frameworks for measuring or enhancing emergency nurse competencies were included. Conversely, studies focusing on the effects of nursing interventions on patient outcomes in the emergency department were excluded.

Context

The context of this scoping review encompassed emergency department settings globally, with particular attention to resource-variability across healthcare systems. The review specifically examined emergency nursing care provided continuously (24 hours a day, seven days a week), recognizing the distinct operational challenges faced in LMIC settings where staffing patterns, resource availability, and infrastructure may differ significantly from high-income contexts. Studies were included if they were conducted in emergency departments providing uninterrupted nursing care, regardless of resource limitations or geographical location.

This inclusive approach enabled comprehensive mapping of competencies across diverse healthcare environments, facilitating identification of both universally applicable skills and those requiring contextual adaptation in resource-constrained settings. Studies conducted in short-stay units, observation wards, or other co-located units within emergency departments that did not provide continuous care were excluded, as were those not representing the full spectrum of emergency care delivery. This methodological decision ensured the captured competencies reflected the comprehensive demands of emergency nursing practice while remaining sensitive to contextual variations in emergency care infrastructure and resource availability.

Types of Evidence

The review considered a range of study designs and types of evidence to gain a comprehensive understanding of emergency nursing competencies. Eligible studies including analytical observational studies such as prospective and retrospective cohort studies, case-control studies, and cross-sectional analytical studies. Descriptive observational research designs, including case series, individual case reports, and cross-sectional descriptive studies, were also included. Additionally,

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qualitative studies utilizing methodologies such as phenomenology, grounded theory, ethnography, qualitative description, and action research were considered, as were mixed-methods studies. Full-text articles and full-text conference proceedings written in English were eligible for inclusion. However, systematic reviews, narrative reviews, editorials, abstracts, posters, position statements, and studies for which the full text could not be obtained were excluded. Articles not written in English and dissertations were also excluded from this review.

Information Sources

The review conducted a comprehensive search across three primary databases: MEDLINE (via PubMed), Scopus, and ProQuest. These databases were selected for their broad coverage of healthcare-related literature. Articles published between 2004 and February 2024 were considered. Additionally, forward and backward citation searches were performed on key studies to identify further eligible articles. Google Scholar was used as an additional search tool to locate potentially relevant studies not indexed in the primary databases. The final search was executed in February 2024 to ensure that the review incorporated the most recent evidence available at the time.

Search strategy

The search strategy employed Boolean operators and relevant terms from Medical Subject Headings (MeSH), Subject Headings, and Emtree. The following search terms were used:

•"Registered nurse" OR "clinical nurse" OR "emergency nurse"

•"Competencies" OR "practice standards" OR "scope of practice" OR "specialist standard"

•"Emergency room" OR "emergency service" OR "emergency department"

The search limits included the publication date range from 2004 to February 2024 and English language. The full electronic search strategy was tailored to each database and executed systematically. The full search terms and strategy are presented in Supplementary file 1 (see Appendix A).

Selection of Sources of Evidence

The selection of sources followed a two-step process. First, titles and abstracts were screened using the Rayyan platform (35) to filter studies for relevance based on the inclusion criteria. Three independent reviewers (AR, EPW, and IMMYS) conducted the screening process. In the second step, full-text articles of the studies that passed the initial screening were reviewed to confirm their eligibility. Discrepancies among reviewers were resolved through discussion, and if a consensus could not be reached, a third reviewer (AR, SA, WAN) adjudicated. A PRISMA-ScR flowchart (Figure 1) illustrates the selection process, showing how studies were excluded at each stage.

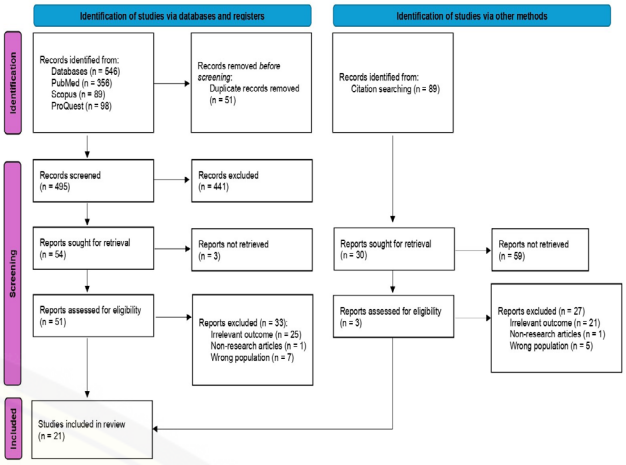

Figure 1: PRISMA Flow diagram

To maintain methodological rigor and ensure consistency among reviewers, several systematic measures were implemented throughout the review process. Prior to beginning the formal screening, all reviewers (AR, EPW, and IMMYS) participated in a calibration exercise where they independently screened the same set of 50 randomly selected articles. The results were compared and discussed to establish a common understanding of the inclusion/exclusion criteria and resolve any interpretational differences. A detailed screening protocol was developed and agreed upon by all reviewers, which included operational definitions for each criterion, decision rules for handling ambiguous cases, and standardized procedures for documenting screening decisions.

Weekly consensus meetings were held among reviewers to discuss challenging cases, address emerging issues, and refine the screening protocol as needed. As part of the quality control process, a random 10% sample of screened articles was cross-checked by another reviewer, with inter-reviewer reliability assessed using Cohen's kappa coefficient. Any discrepancies were documented and resolved through group discussion, and when consensus could not be reached, senior reviewers (SA, WAN) made the final decision. This systematic approach to ensuring reviewer consistency was maintained throughout both the screening and data extraction phases of the review.

Data Charting Process

Data extraction was performed using a standardized data charting tool developed by the review team. The tool captured specific details, including:

•Participants: Nurse demographics and roles.

•Concepts: Competencies explored in the studies.

•Context: Emergency department settings.

•Study Methods: The methodological approaches used in the included studies.

•Key Findings: Relevant outcomes and conclusions from each study.

The charting process was calibrated within the team,

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ensuring consistency across reviewers. Data extraction was carried out by three independent reviewers (AR, EPW, and IMMYS), with discussions held to resolve any discrepancies in data interpretation. If needed, further verification was conducted by a third reviewer (SA or WAN). The extracted data were organized in Microsoft Excel for synthesis.

Critical Appraisal of Individual Sources of Evidence

As this is a scoping review, a formal critical appraisal of individual sources of evidence was not performed. The focus of scoping reviews is to map the available literature and provide an overview of existing evidence, rather than to assess the methodological quality or risk of bias in the studies (36,37). This approach allows for the inclusion of a wide range of studies to identify gaps, summarize findings, and highlight areas for future research without excluding studies based on their methodological rigor.

Synthesis of Results

The synthesis of the results involved a narrative approach, structured around the competency domains for nurses in emergency settings. Thematic analysis was applied to identify key competency categories, which were mapped against Patricia Benner's "Novice to Expert" framework and the Emergency Nurses Association (ENA) competency domains, including leadership, practice inquiry, and clinical expertise (38,39). The differentiation between core and advanced competencies was established through frequency analysis, complexity assessment, framework alignment, role requirement analysis, and contextual considerations.

Competencies were classified as core competencies, representing the fundamental skill set required of all emergency nurses regardless of experience level. Competencies requiring higher-order thinking, leadership responsibilities, or system-level understanding were classified as advanced, aligning with Benner's "proficient" and "expert" stages. Additionally, competencies explicitly described in the literature as being required for specialized or advanced emergency nursing roles or requiring additional certification, education, or specialized training were categorized as advanced.

Quantitative data were categorized into predefined fields (e.g., study population characteristics), while qualitative data were classified into themes through semantic analysis. The results are summarized in tables to present key findings clearly and concisely, ensuring they address the objectives and review question. The discussion section reflects on the implications of these findings for practice and policy, offering suggestions for standardizing emergency nurse competencies.

RESULTS

A total of 21 articles were included in this scoping review. Of these, 10 studies employed mixed-methods designs (2,19,40–46), 8 utilized cross-sectional approaches (20,47–53), 2 followed qualitative methodologies (54,55), and 1 used a cohort study design (56). Detailed data extraction were presented in Table I.

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Table I: Data Extraction

No	Author, Country	Methodology / methode Instrumens	Aims	Sample	Emergency Nursing Competencies						Emergency Nursing Competencies		
					Clinical skill spesific to emergency nurse	Comunication	Teamwork	Professional Development	Personality performance	Professional Legal Etik	Management and Leadership	Research and Quality insurance	Health Delivery System
1	(Ramirez et al., 2006) (38) USA	Cross sectional The Nurse Practitioner Treatment Competency Instrument	To establish a definition of the NPs in emergency care settings, by examining the treatment competencies	42 ENP	√	√			√		√		√
2	(Considine et al., 2006) (46) Australia	Cohort Study A professional journal was used to collect data related to the components of the ENPC role and time devoted to each component.	Establishing the ENP model as an effective and sustainable method of emergency care delivery in Victorian EDs.	476 ENPC	√	√		√			√	√	√
3	(Salonen et al., 2007) (39) Finland	Cross sectional Meretoja's Nurse Competence Scale	To describe recently registered nurses' perceptions of their competence level, and to identify factors influencing these perceptions.	235 register nerses in ICU and ER	√	√	√		√		√	√	
4	(Hoyt et al., 2010) (2) USA	Mixed Method	To describe entry-level competencies for NPs practicing in emergency care, regardless of setting.	15 experts and 457 NP	√				√		√		√
5	(O'Connell & Gardner, 2012) (31) Australia	Mixed Method Recruitment of participants : the Queensland Statewide Emergency Department Network Nurse Practitioner Sub Committee National competency standards for the nurse practitioner (ANMC 2006)	To test data collection methods, tools and processes in preparation for a larger national study to investigate specialist competency standards for emergency nurse practitioners.	39 ENP	√			√	√		√	√	√
6	(O'Connell et al., 2014) (32) Scotland	A survey approach using questionnaires Semi-structured interviews	To explore and clarify the role and scope of practice of emergency nurse practitioners in a region in the United Kingdom and determine if they fulfill the proposed criteria for Advanced Nurse Practitioners	42 ENP	√			√	√		√		
7	(Holanda et al., 2015) (20) Brazil	A descriptive exploratory study The Professional Competency Matrix	To develop the professional competency profile for the nurse working in emergency services	6 expert	√	√	√	√			√	√	
8	(Fan et al., 2016) (19) China	Mixed Method The Core Competence Framework Model for Emergency Nurse Specialists (CCFMENS)	To describe the development and psychometric testing of the Core Competence Evaluation Standards for Emergency Nurse Specialists (CCESENS) in the Chinese context	17 expert and 138 ENP	√	√	√	√			√		

CONTINUE

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Table I: Data Extraction (CONT.)

No	Author, Country	Methodology / methode Instrumens	Aims	Sample	Emergency Nursing Competencies						Emergency Nursing Competencies		
					Clinical skill spesific to emergency nurse	Comunication	Teamwork	Professional Development	Personality performance	Professional Legal Etik	Management and Leadership	Research and Quality insurance	Health Delivery System
9	(Ghanbari et al., 2017) (33) Iran	Mixed Method The Q method	To determine clinical competency indicators and their priority based on nurses' views in educational and therapeutic centers in Guilan	50 nurse. 21 expert And 710 partisipant	√	√		√	√		√		
10	(Holanda et al., 2018) (21) Brazil	Mixed method The Pasquali's model and Psychometrics	To create an instrument to assess the professional competence of nurses in emergencies	17 ENP observasi And 85 expert nurses	√								
11	(Miranda et al., 2021) (34) Brazil	Mixed method The Snowball Technique and Delphi Technique	To build and validate competency frameworks to be developed in the training of nurses for the care of adult patients in situations of emergency with a focus on airway, breathing and circulation approach	35 expert	√	√	√		√		√	√	
12	(Holanda et al., 2019b) (35) Brazil	Mixed method Psychometrics	To verify the evidence of content validity of the Identifying Issues (Identification questions) elaborated from the theoretical-logical model of the Matrix and the Profile of Professional Competence of the emergency nurse	25 expert and 25 participant	√				√				
13	(Holanda et al., 2019a) (47) Brazil	Cross sectional The Competence Scale of Actions of Nurses in Emergencies	To evaluate the validity of the Competence Scale of Actions of Nurses in Emergencies based on internal structure, internal consistency, and external criteria	407 nurses and 41 managers	√	√	√	√	√		√	√	
14	(Vand Tamadoni et al., 2020) (40) Iran	Cross sectional study The Competency Inventory for Registered Nurse questionnaire	This article reports on a study investigating the self-assessed clinical competence of new nurses working in emergency departments	115 nurses	√	√	√	√	√	√	√	√	
15	(Holanda et al., 2022) (36) Brazil	Lilalva Scale for Measuring Clinical Competencies in Emergencies of Nurses	To present the visual identity of a soft-hard technology; to describe its technical characteristics, standardization and norms of criteria for the interpretation of results, in order to measure clinical competencies in emergencies of nurses		√		√	√			√	√	
16	(AlRashedi et al., 2022) (41) Saudi Arabia	A cross-sectional study The electronic questionnaire	To assess the core and the determinants of emergency nursing competencies of nurses working in the emergency departments of hospitals in Qassim Saudi Arabia	213 nurses	√				√				

CONTINUE

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Table I: Data Extraction (CONT.)

No	Author, Country	Methodology / methode Instrumens	Aims	Sample	Emergency Nursing Competencies						Emergency Nursing Competencies		
					Clinical skill spesific to emergency nurse	Comunication	Teamwork	Professional Development	Personality performance	Professional Legal Etik	Management and Leadership	Research and Quality insurance	Health Delivery System
17	(Siam et al., 2022) (42) Saudi Arabia	Descriptive study design cross sectional a research questionnaire on electronic form	To assess the clinical competence of emergency nurses based on a self-assessment tool	87 nurses	√								
18	(Ferreira et al., 2023) (37) Brazil	Mixed-methods and explanatory study quantitative The Competence Scale of Actions of Nurses in Emergencies	To describe the professional competencies of nurses working in urgency and emergency services and understand their perception of the essential competencies for professional performance and updating	56 nurses ED in quantitative 24 nurses in qualitative	√		√	√			√	√	
19	(Trisyani et al., 2023) (45) Indonesia	Qualitative study The FGD procedures	To explore the emergency nurses' competencies in the clinical emergency department (ED) context as needed by society	56 nurses	√	√	√			√	√	√	√
20	(Jesus & Balsanelli, 2023) (43) Brazil	Cross sectional Competence Scale of Actions of Nurses in Emergencies and Nursing Care Product Evaluation	To relate urgency and emergency nurses' professional competencies with the Nursing care product	91 nurses, 3 Nursing residents, 4 coordinators and 1 manager	√		√	√			√		
21	(Mani et al., 2023) (44) Saudi Arabia	Qualitative study Semi-structured interview	To identify emergency nurses' perceptions of core competencies necessary to work in hospitals in the context of armed conflict	15 Participant	√	√		√			√		

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Country Distribution

The geographical distribution of the selected studies is diverse, with Brazil contributing the most articles (8 articles) (20,21,43–47,56). Saudi Arabia provided 3 studies (48,49,54), while the USA (2,52), Iran (42,50), and Australia (40,55) each contributed 2 studies. Additional single contributions came from Indonesia (53), China (19), Finland (57), and Scotland (41).

Emergency Nurse Competencies

The review identified six core competencies for emergency nurses, which are visually summarized in Figure 2:

1. Specific Clinical Skills: Many studies emphasized the importance of clinical expertise for emergency nurses (2,20,40,42,46,51–53,55). These clinical competencies include both technical skills and adherence to clinical guidelines.
2. Personality Performance: Emotional resilience and strong personality traits, such as the ability to remain calm under pressure, were key attributes identified in several studies (2,19–21,40,41,46,51,55).
3. Communication: Effective communication skills, both verbal and non-verbal, were highlighted as crucial for emergency nurses to ensure smooth patient care transitions and team coordination (2,18,40,42,44,49,52,55).
4. Professional Development: Continuous learning and professional growth were noted as critical for maintaining competency and advancing in the field of emergency nursing (20,40,42,44,46,51,52,55).
5. Teamwork: Collaboration and teamwork are essential competencies for emergency nurses working in high-stress, multidisciplinary environments (20,44,47–52).
6.Professional Legal and Ethical Practices: Legal knowledge and ethical practice guidelines specific to emergency nursing were also emphasized as important competencies (40,53).

Figure 2: Core Emergency Nurses Competencies

Advanced Emergency Nurse Competencies

In addition to core competencies, the review also identified three key advanced competencies for emergency nurses (Figure 3):

1. Management and Leadership: Many studies emphasized the importance of leadership skills in emergency nursing, particularly in guiding teams and managing complex emergency care environments (2,19,21,40–46).
2. Research and Quality Assurance: Participation in research and implementation of evidence-based practices were identified as vital for improving patient outcomes and ensuring quality in emergency care (20,21,43–47,56).
3. Health Delivery Systems: Competencies related to understanding and navigating broader healthcare systems, including disaster preparedness and mass casualty management, were noted as essential for emergency nurses (42,44,47,49,53).

Figure 3: Advance Emergency Nurses Competencies

DISCUSSION

The competency of emergency nurses varies across developed and developing countries, reflecting the diverse characteristics and settings of emergency departments worldwide. These differences in competency standards, coupled with regional variations in the leveling of competencies, create confusion and ambiguity. This review highlights the need for a more standardized global approach to understand the general competencies required for registered nurses working in emergency departments. For instance, in developed countries, nurses in emergency departments are often required to have at least a master's or specialist degree, while in developing countries, general nurses with additional training typically fulfill these roles (57).

While this scoping review provides an initial framework

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for understanding emergency nurse competencies, future research methodologies—such as systematic reviews or mapping analysis with larger and more diverse populations—are essential to refine these findings. Nonetheless, this study can serve as preliminary data for policymakers in developing competency standards for emergency nurses. The inclusion of studies from nine countries across multiple continents offers a broad yet minimal view of emergency nursing conditions in varying settings.

We identified six core competencies for emergency nurses: specific clinical skills, personality performance, communication, professional development, teamwork, and professional legal and ethical practices. These competencies form the foundation for emergency nurses to effectively perform their roles in emergency departments. Practice standards, which define competent care and support the evaluation of clinical proficiency, are critical for the progression of nurses from novice to expert. In emergency nurse practitioner (ENP) specialty practice, standards delineate essential knowledge, tasks, and procedures across several domains, including medical screening, medical decision-making, patient management, patient disposition, and legal/ethical practices (9,15,28,38,58).

Clinical skills remain a cornerstone of emergency nursing, as emergencies can affect anyone, and nurses must be prepared to address a wide range of patient conditions and symptoms. Critical skills include lifesaving procedures, diagnostic analysis, and the use of medical technology (7). Studies consistently show that higher levels of competence are associated with greater frequency and proficiency in performing clinical tasks (4,59). Moreover, these skills must be accompanied by an understanding of health values, cultural context, and educational backgrounds, all of which add a professional and social dimension to the nurse's role (60,61).

The personality performance domain emphasizes the ability to provide care that is culturally and ethically responsive to patients' values and beliefs. This competency is crucial in outcome-focused care and involves setting clear goals, managing emotional balance, and collaborating effectively with team members. Nurses must maintain a professional demeanor, remain flexible, and negotiate solutions that benefit both the team and the institution. Legal and ethical responsibilities further shape nurses' actions in the emergency department (2,45–47). Continuous professional training and self-improvement are vital for achieving excellence in this role (48).

Communication is another essential skill for emergency nurses, particularly in fast-paced and high-stress environments. Effective communication is necessary for collaboration with other healthcare professionals and for managing complex interpersonal dynamics (62). Emergency nurses must ensure clear and accurate information transfer among team members, facilitate patient and family education, and participate in health promotion and injury prevention efforts (63,64).

Professional development, which involves ongoing learning and training, is critical for nurses to transition into specialist roles. Professionalism in emergency care is not only about clinical skills but also involves adaptability to changing conditions and a commitment to making informed, responsible decisions (65). Developing technical skills and knowledge in response to new challenges is key to finding effective solutions in dynamic emergency settings.

Teamwork is central to emergency care, requiring coordination and cooperation among healthcare professionals to achieve shared goals. Teamwork fosters positive relationships in the work environment, emphasizing interprofessional collaboration while maintaining professional identity (62,66,67). Effective teamwork leads to superior care and reinforces nurses' professional identity (68).

Legal and ethical considerations are integral to emergency nursing practice. Two studies (40,53) highlight the importance of ethical and legal standards, particularly regarding triage procedures. Nurses must base their practice on legal frameworks, national laws, and professional codes of ethics to prevent moral dilemmas and legal issues (53,69,70).

Advanced competencies in emergency nursing include management and leadership, research and quality assurance, and health delivery systems. As emergency nursing practices expand, these advanced competencies become crucial for enhancing research, teaching, learning, and leadership capabilities (53). Management and leadership involve influencing attitudes and behaviors to meet specific goals and address challenges. These competencies require both individual and group development, as well as the knowledge and skills to improve nursing performance (62,71).

Critical thinking skills are also essential, enabling nurses to make informed decisions in complex clinical situations (20,72) (20,73). Evidence-based practice, which integrates research findings into clinical care, is a critical component of advanced nursing competencies (69). Nurses must also be proficient in teaching, providing education to patients and families, and fostering professional development among peers (73,74).

Finally, the health delivery system competency emphasizes nurses' role in coordinating care during disaster situations or in collaboration with other health agencies. Emergency nurses must adapt to local roles and resources, particularly during disasters, and must

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be proficient in coordinating with external agencies such as ambulance services and government authorities (53,54,75).

The implementation and prioritization of these competencies may vary significantly in resource-limited or culturally distinct settings. In resource-limited environments, emergency nurses often need to adapt their competencies to work with basic equipment and limited technological support, placing greater emphasis on fundamental clinical skills and creative problem-solving. For instance, while nurses in developed countries might rely on advanced monitoring equipment for patient assessment, those in resource-limited settings must excel in physical assessment and clinical judgment skills.

Cultural distinctions also influence how competencies are applied; communication skills in particular must be adapted to local cultural norms, healthcare beliefs, and family dynamics. In some cultures, family involvement in care decisions is paramount, requiring nurses to develop specific competencies in family-centered care and cultural mediation. Additionally, emergency nurses in resource-limited settings often need stronger competencies in resource management and improvisation, as they frequently face challenges such as supply shortages, limited specialist support, and infrastructure constraints.

Implications

The findings from this scoping review have significant implications for emergency nursing practice, education, and policy development, particularly within resource-limited settings. The identified competency framework provides a foundational structure that can be contextually adapted to address the unique challenges faced in LMICs, where emergency care systems often operate under considerable constraints. For policymakers in these regions, this evidence synthesis offers a methodologically rigorous basis for developing locally relevant competency standards that acknowledge resource limitations while maintaining essential quality benchmarks. Educational institutions in LMICs can utilize this framework to design curricula that strategically prioritize core competencies while gradually introducing advanced competencies as resources and infrastructure develop.

The differentiation between core and advanced competencies is especially valuable in resource-constrained environments, enabling targeted allocation of limited educational resources toward fundamental skills development. Furthermore, the identification of system-level competencies relating to health delivery systems provides critical insights for emergency nurses working in settings with fragmented healthcare infrastructure, potentially enhancing service integration and care coordination. Healthcare facilities in LMICs can implement competency-based assessment tools derived from this framework to systematically evaluate emergency nursing performance within their specific contextual constraints, facilitating evidence-based professional development pathways despite resource limitations.

Limitations

This scoping review has several methodological limitations that warrant consideration when interpreting its findings, particularly regarding applicability to LMIC contexts. First, despite efforts to include diverse perspectives, the majority of included studies originated from upper-middle and high-income countries, potentially limiting the direct transferability of identified competencies to low-resource settings where emergency care infrastructure differs substantially. The heterogeneity in study methodologies, competency definitions, and assessment approaches further complicates cross-contextual comparisons, potentially obscuring nuanced differences in how competencies manifest across different resource environments. Additionally, the absence of critical appraisal in our methodology, while consistent with scoping review principles, prevents robust evaluation of evidence quality underpinning the identified competencies.

This limitation is particularly relevant when considering implementation in LMIC settings, where evidence-based practice must be balanced with contextual feasibility. Furthermore, the review did not comprehensively examine how emergency nursing competencies might be modified or prioritized differently across resource gradients, limiting specific guidance for adaptation in severely resource-constrained environments. Future research should address these gaps through more targeted investigation of emergency nursing competencies in diverse LMIC settings, incorporating contextual factors such as resource availability, healthcare infrastructure, and culturally specific practice patterns.

CONCLUSION

This scoping review synthesizes current evidence on emergency nurse competencies, identifying six core competencies and three advanced competencies that collectively define the scope of emergency nursing practice across diverse healthcare contexts. Our findings both align with established competency frameworks from high-resource settings and extend beyond them by offering a more nuanced perspective on how these competencies might function within resource-variable environments. The identified core competencies—clinical skills, personality performance, communication, professional development, teamwork, and professional legal ethics—represent fundamental requirements for emergency nursing practice regardless of setting, while providing flexibility for contextual adaptation in resource-constrained environments. The advanced

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competencies—management and leadership, research and quality assurance, and health delivery systems—offer a developmental pathway for emergency nursing specialization that acknowledges the progressive nature of skill acquisition within increasingly complex healthcare systems.

This competency framework holds particular relevance for LMIC settings, where emergency care systems are evolving rapidly amid significant resource limitations. By distinguishing between essential and advanced competencies, this review provides a structured approach to emergency nursing development that can be strategically implemented according to local resources, priorities, and healthcare infrastructure. Future research should focus on validating and refining these competencies within specific LMIC contexts, exploring innovative approaches to competency development in resource-limited settings, and establishing clear links between competency attainment and patient outcomes. This evidence synthesis ultimately contributes to the advancement of emergency nursing globally, supporting the development of contextually appropriate standards that enhance emergency care delivery while acknowledging the diverse challenges faced in different healthcare environments.

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