

# Core Competencies for Emergency Nursing Specialty among Tertiary Hospitals in Tangshan, China

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**Abstract:** The study endeavored to provide a comprehensive understanding of the current landscape, perspectives, and consensus on emergency nursing competencies, contributing valuable insights to enhance the quality and standardization of emergency nursing practices. The study meticulously examined existing competency-based programs for emergency nursing specialties through a systematic review of literature, interviews, and the Delphi Method with 17 diverse experts from four Tangshan City hospitals in China. The panel, including seasoned clinical practitioners, ensured practical insights. Selection of these hospitals, sharing healthcare goals, aimed for study approval ease. Eleven emergency nurses, aged 28 to 48, contributed with 5 to 27 years of experience. The comprehensive review initially identified 5,611 documents, narrowing down to 34 relevant ones, covering competencies, training content, methods, duration, and assessment standards. Synthesizing this data informed the study's second research query, while the Delphi Method pinpointed core competencies. The identified seven core competencies bridge theoretical and practical aspects of emergency nursing, validating literature insights, and offering a comprehensive guide for training programs. The interplay between theory and practice, as evidenced by these competencies, underscores the dynamic and evolving nature of emergency nursing in ensuring optimal patient outcomes and effective crisis response.

**Keywords:** Emergency nurses; Nursing competencies; Specialty nurse training; Delphi Method; Tangshan City hospitals

## I. Introduction

In response to escalating global public health emergencies, the demand for enhanced emergency medical care has surged. Hospital emergency departments play a critical role, with Nurse Practitioners (NPs) recognized for safe and efficient emergency care, necessitating continuous professional development. China's National Health Commission emphasizes vocational training in emergency departments, but a lack of unified specialty training impedes progress. Specialist training, particularly for Clinical Nurse Specialists (CNSs), is crucial for patient safety, with Advanced Practice Nurses (APNs), including CNSs, poised to lead healthcare reform. The U.S. leads in mature emergency nurse training, while China's focus on clinical skills neglects core competencies. Advocating for specialist training aligned with international standards, the American Emergency Nursing Association sets core competency benchmarks. However, China's training content remains skill-focused, necessitating the need to enhance training systems, emphasizing interpersonal skills, organizational effectiveness, and professional competence to adapt to evolving healthcare technology (Veenema et al., 2021; Evans et al., 2017; AANPCB, 2017; Wilbeck et al., 2017)

## II. Review of Literature

**Foreign Emergency Specialty Nurse Training.** A recent systematic review reveals a lack of standardized curriculum for NPs in emergency care, with limited hands-on clinical training in some online programs (Veenema et al., 2021). Emory University's interprofessional emergency nurse training program, aligning with national standards, mandates 500 hours of primary care and 275 hours of emergency department clinical practice, emphasizing structured rotations to enhance teamwork (Evans et al., 2017; Vazquez-Casares et al., 2019). Scholars, including Vazquez-Casares, delineate five training modes for emergency nurses, with varying experience requirements (Jones et al., 2020). The American Association of Nurse Practitioners Certification Board addresses competency needs with the Emergency Nurse Practitioner Certification (ENP-C) examination, identifying specific knowledge areas (AANPCB, 2017). Wilbeck et al. (2017) propose core content for ENP specialty education, covering medical screening, decision-making, patient management, disposition, and ethical practices (2017). Australia and Scotland prioritize master's degrees, addressing the lack of unified courses with tailored training programs (Palinkas et al., 2017; Fotheringham et al., 2011). Japanese specialist nurses have dual certification based on education programs (Meng, 2019). Recent studies underscore the potential enhancement of emergency nurses' capabilities through education and specialized training, focusing on triage, patient safety, and disaster response (Goniewicz et al., 2021; Habibi Soola et al., 2022; Zagalioti et al., 2023).

**China's Domestic Emergency Specialty Nurse Training.** Emergency specialty nurse training in Hong Kong, China, comprises on-the-job and professional training, covering areas such as emergency wound management and disaster response (Wong et al., 2008). In Taiwan, the Taiwan Association of Nurse Practitioner (TANP) oversees specialized nurse training, incorporating 184 hours of theoretical courses and 504 hours of clinical practice, categorized into basic, advanced I, and advanced II levels (Taiwan Association of Nurse Specialists, 2020). In mainland China, the Chinese Nursing Association offers an 8-week emergency nurse training program, responding to students' preferences for offline workshops and additional topics like disaster first aid and new technologies (Ye, 2022). However, variations exist in emergency specialty training across China, with differences in duration, content, and assessment methods. Studies recommend training periods exceeding four months for more effective outcomes (Ao et al., 2016). While Objective Structured Clinical Examination (OSCE) is applied for comprehensive assessment, adaptations like a simplified OSCE model are proposed for improved efficiency (Zhang et al., 2013; Wang et al., 2017). Notably, the emphasis on clinical nursing skills outweighs attention to nursing humanities and scientific research, revealing a need for more balanced curriculum development (Yang, 2019).

**Core competencies of specialty nurses within and outside of China.** Globally recognized core competencies in nursing, essential for expected performance (ANA, 2013), have been well-established. Hamric et al. (2005) introduced a framework covering seven dimensions for specialist nurse training. The American Nurses Association (ANA) and the Australian Nursing & Midwifery Council (ANMC) defined competencies, including health problem management, patient-care relationships, leadership, and pan-cultural care (ANA, 2001; Gander et al., 2004). In China, nursing core competencies, focusing on organizational effectiveness and interpersonal skills, gained prominence (Fan, 2011). Emergency Nurses Association (ENA) standards encompass eight dimensions, from circulatory and trauma care to gynecology and urology (ENA, 2009). Standards in the Americas, Canada, Australia, and New Zealand emphasize teamwork, equipment management, professional development, leadership, ethics, law, and research (Jones et al., 2015). Saudi Arabian emergency nurses identified competency gaps, signaling a need for additional training (AlRashedi et al., 2022).

In China, scholars propose diverse core competencies for emergency nurses, covering knowledge, interpersonal relationships, and development (Song et al., 2010; Wang, 2011; Wu et al., 2013; Fan et al., 2016). Evaluation indices for emergency triage nurses include pre-check triage ability, communication, critical

thinking, and professional practice (Xie et al., 2018; Zhang et al., 2021). Core competencies for emergency trauma nurses are divided into six domains, covering basic knowledge, professional practice, leadership, communication, education, and research (Xie et al., 2023). This extensive literature underscores the global consensus on the significance of nursing core competencies, especially in emergency contexts, providing a solid foundation for training programs and professional standards

**Synthesis.** In China, the lack of uniformity in emergency specialty training, conducted independently by each province, results in variations in cycle, method, duration, content, materials, standards, assessment, and re-certification. For instance, Anhui Province's program spans six months, divided into two months of theory and four months of practice. Assessment methods include the Objective Structured Clinical Examination (OSCE), with a simplified OSCE model developed for clinical skills. Various teaching materials, like the "Primary Trauma Treatment Manual" and "Practical Emergency Nursing," are employed. Despite common situational simulation methods enhancing critical thinking and practical skills, there's a notable absence of a standardized core competency-oriented training system. Surveys in Sichuan province indicate a need for core competency enhancement, recommending the establishment of an authoritative qualification certification agency for standardized training. The formalization of the training system is crucial for enhancing the quality of emergency patient care, urging future efforts to focus on standardization, systematization, content unification, and certification standards for emergency specialty nurses.

### **Statement of the Problem**

The study endeavored to provide a comprehensive understanding of the current landscape, perspectives, and consensus on emergency nursing competencies, contributing valuable insights to enhance the quality and standardization of emergency nursing practices. Specifically, this study sought to answer the following questions: (1) What are existing standard emergency nursing competencies in the selected hospitals?; (2) What do emergency nursing specialists identify as core competencies in emergency nursing?; (3) What do emergency nurses identify as core competencies in emergency nursing?; and (4) What do experts identify as core competencies in emergency nursing?

### **Study Framework**

This study utilized the Nurses' Hierarchical Ability Training Theory, developed by Chinese scholar Fan, et al. (2011), integrating core competence and clinical career ladder theories. The model emphasizes training methods (school education, clinical practical, and specialist training) aligned with nurse career levels (new, general, specialist, and consultant). The 3x3 core ability area underscores specialized nurses' essential skills and knowledge, urging focused training. Applied to emergency nursing, this theory asserts the need for compatible core competencies, advocating tailored training for emergency nurses to enhance their proficiency in essential areas (Luo, et al., 2011). These theories inform the development of a targeted competency-based training program for emergency nursing specialists in the study.

## **III. Methodology**

The researchers conducted a thorough review of existing competency-based training programs for emergency nursing specialties, interviews with emergency nurses, and initiated the Delphi Method involving emergency nurses and nursing specialists in four selected tertiary comprehensive hospitals in Tangshan City, China. The study enlisted 17 experts, emphasizing a heterogeneous sample, and aimed for consensus on competency enhancement. The panel comprised clinical nursing practitioners, ensuring practical insights (Waldron et al., 2016). The researchers selected four tertiary comprehensive hospitals in Tangshan City, China, for the study, based on shared healthcare goals and ease of approval. The study involved 11 emergency nurses aged 28 to 48, with five to 27 years of experience, all having completed specialist training. The expert panel size of 17 was determined by the researchers, aligning with recommendations for heterogeneity and relevance to the study's objectives (Baker et al., 2006; Rocksund, 2017). Addressing the first research query involved a thorough review and interviews, initially yielding 5,611 documents. After eliminating duplicates and applying inclusion

criteria, 34 pertinent documents were retained, covering core competencies, training content, methods, duration, and assessment standards for emergency specialist nurses. Synthesizing data from the first question informed the second research query. Thematic analysis of perceptions from emergency nurses, identified foundational competencies across domains for the third question. The Delphi Method surfaced the core competencies.

#### **IV. Results**

##### **Existing standard emergency nursing competencies**

The research landscape on standard emergency nursing competencies in selected hospitals reveals a nuanced and multifaceted understanding of the skills and attributes considered crucial for effective emergency nursing practice. The studies under review delve into various dimensions and attributes, offering comprehensive insights into the complex realm of emergency nursing.

The study conducted by Luo et al. (2011) served as a cornerstone in establishing core competency standards for emergency specialty nurses. The researchers identified five key dimensions for competency assessment, including professional practice ability, judgment thinking ability, management ability, interpersonal communication ability, and professional development ability. These dimensions were derived from participant statements, shedding light on the essential attributes deemed crucial for emergency specialty nurses. One participant (S1) notably emphasized the significance of professional experience, theoretical knowledge, and proficiency in professional skills for nursing experts. This participant argued against the assumption that reaching a certain level automatically implies a particular level of competence. Instead, a comprehensive assessment should be conducted to judge the professional quality and abilities of nurses at different levels (N3 and N4). This perspective highlights the need for a refined and individualized approach to evaluating nursing expertise.

Wu et al.'s research in 2013 further reinforced these competency dimensions, focusing on the construction of evaluation indicators and weights for emergency specialty nurses. The primary indicators identified encompassed various aspects of nurses' abilities, including professional practice, critical thinking, management, communication, and professional development. The research highlighted the multi-faceted nature of responsibilities within the emergency department, emphasizing the need for emergency nurses to possess a comprehensive set of skills and knowledge, ranging from the mastery of professional knowledge and practical skills specific to the emergency department to the ability to engage in critical thinking.

The research conducted by Zhang et al. in 2021 contributed to the development of a self-assessment questionnaire tailored to discern the core competencies of emergency triage nurses. This questionnaire, structured around six dimensions, aimed to provide a nuanced and holistic evaluation of the emergency triage nurses' proficiency. Participants in the research emphasized the necessity for a series of assessments to inform the evaluation process. Categorization of nurses at different proficiency levels, denoting specialist nurses and nursing experts, underscored the hierarchical nature of nursing expertise. This categorization suggested a structured approach to recognizing and advancing core competencies within the emergency triage nursing domain.

The research findings were further enriched by insights from participants (S2, S6, S7) who shed light on the crucial dimensions constituting core competencies for emergency department nurses. Drawing from existing literature and competency frameworks, the study identified four key dimensions: pre-check triage ability, communication and coordination ability, critical thinking ability, and professional practice ability. Participants emphasized the multifaceted nature of these core competencies, integrating professional knowledge, practical abilities, communication, and coordination skills. They recognized the importance of applying emergency equipment, managing critical illnesses, and addressing patients' immediate health concerns. Effective communication and collaboration within the emergency team were highlighted, emphasizing the interconnectedness of individual competencies within a team dynamic.

The research also incorporated the standard competency framework outlined by Liu (2007) for registered nurses in China. Liu's framework encompassed seven crucial dimensions: critical thinking, research ability, clinical nursing, leadership skills, interpersonal relationships, ethics and legal practice, professional development, and educational counseling. Participants' statements, particularly that of S3, illuminated the practical implications and real-world application of these competencies, especially in the specialized field of emergency nursing. S3 emphasized the significance of practical ability in emergency medicine, the importance of cultivating a professional attitude, teamwork, and the integration of individual abilities into a team setting.

Gebbie's (2002) article on emergency and disaster preparedness delineated seven crucial facets constituting the core competencies for emergency nurses. These competencies included team spirit, emergency response ability, knowledge base, operational equipment skills, communication ability, clinical judgment, and rational arrangement, along with creative problem-solving ability and flexible thinking. Participants' statements, particularly from S7, reinforced the identified competencies. S7 emphasized the necessity for emergency nurses to manage care effectively, highlighting organizational skills, adept communication, and the ability to navigate complex situations with a problem-solving mindset.

The research by Gardner (2004) provided a comprehensive competency framework applicable in both China and New Zealand. The framework comprised three fundamental aspects critical for nurses operating in advanced healthcare settings: dynamic practical ability, professional performance improvement, and capability for clinical nursing development. Participants' statements, such as that of S11, aligned with these aspects, emphasizing the importance of professional practical ability and the need for continuous improvement and collaboration within the team.

Furthermore, the research by Liu in 2009 on the competency framework for specialized nurses globally identified core competencies around four key areas: providing direct clinical care, leadership and decision-making abilities, education and guidance abilities, and research capabilities. The participant's perspective, particularly from S2, added a practical dimension, showcasing how these competencies manifest in the day-to-day responsibilities of a specialized nurse, particularly in the emergency department.

The examination of existing competency standards was complemented by an analysis of the research conducted by Wang, et al. (2017), which assessed critical thinking and research capabilities among Chinese registered nurses. The study revealed relatively low scores in these domains, indicating a potential gap in the preparation of nurses for engaging with and contributing to the evolving landscape of healthcare research. Participants' statements, particularly from S5, validated and contextualized these findings, emphasizing the practical implications and the potential role of experienced professionals in addressing competency gaps. S5, identified as an N3, indicated involvement in providing theoretical, equipment, and operational training to subordinate nurses. This acknowledgment indirectly supports the research's emphasis on the variability in competencies based on professional titles, suggesting that professionals engaged in training activities, like S5, might play a pivotal role in addressing identified deficiencies by imparting essential skills and knowledge to their peers. The call for stratified training goals and enhanced research capability training reflects a nuanced understanding of the diverse needs within the nursing profession.

In summary, the amalgamation of diverse research studies offers a comprehensive understanding of the competencies deemed crucial for emergency nursing practice. The identified core competency dimensions, including professional practice ability, critical thinking, management, communication, and professional development, underscore the multifaceted nature of emergency nursing roles. Participants' perspectives align with established competency frameworks, emphasizing the interconnectedness of skills, collaboration, and the dynamic challenges faced in emergency settings. The studies draw on existing literature, competency scales, and

global frameworks to provide a robust foundation for understanding and evaluating competencies in emergency nursing. The convergence of theoretical frameworks and real-world experiences strengthens the validity and applicability of identified competencies.

Moreover, the research highlights the need for continuous learning, adaptability, and a proactive approach in emergency nursing practice. The recognition of competencies related to critical thinking, research, leadership, and adaptability reflects the evolving nature of healthcare and the dynamic challenges faced in emergency settings. The studies also shed light on potential gaps in competencies, particularly in areas such as critical thinking and research capabilities. This recognition prompts a call for stratified training goals and a more targeted approach to address varying competency levels among nurses at different professional tiers. The insights gained from this research can inform curriculum development, training programs, and healthcare policies to enhance the preparedness and effectiveness of emergency nursing professionals. As the healthcare landscape continues to evolve, the emphasis on holistic competencies becomes increasingly vital for ensuring the delivery of high-quality emergency care that meets the diverse and complex needs of patients in emergency settings.

### **Emergency nursing specialists' core competencies**

The research on the core competencies of emergency nursing, as outlined in the synthesis of various studies, presents a multifaceted and dynamic landscape crucial for effective practice in this critical healthcare domain. The foundational dimensions set by Luo et al. (2011) serve as a cornerstone, emphasizing professional practice, judgment thinking, management, interpersonal communication, and professional development. These dimensions provide a comprehensive framework for evaluating and enhancing emergency nursing competence. S1's insights enrich this framework by highlighting diverse assessment criteria essential for evaluating proficiency.

Wu et al.'s (2013) contribution introduces evaluation indicators, validating the necessity of a holistic understanding of competencies, including critical thinking and scientific research abilities. Their research underscores the dynamic and evolving nature of emergency nursing roles, emphasizing the importance of continuous learning and adaptability within the profession. Zhang et al.'s (2021) and Xie et al.'s (2018) study, tailored for emergency triage nurses, identifies dimensions such as pre-check triage, communication, critical thinking, professional practice, management, and professional development. This provides a comprehensive view of the competencies crucial in this specialized area. The hierarchical perspective introduced by S7 added another layer, emphasizing the varying levels of expertise within emergency nursing and the importance of tailoring training programs accordingly.

The Emergency Nurses Association's (2009) competency standards, structured around eight dimensions, underscore the significance of observation as a core competency. This aligns with the real-world applicability validated by statements from S5 during interviews, emphasizing the dynamic nature of emergency nursing care. Gebbie's (2002) identification of seven competencies, including team spirit, emergency response, knowledge base, operational skills, communication, clinical judgment, and rational arrangement, offers a comprehensive and interconnected framework for emergency nursing. This insight is invaluable for the education, training, and professional development of emergency nursing personnel, providing a roadmap for enhancing their skills.

The synthesis of research findings emphasizes the holistic and evolving nature of core competencies. It provides valuable insights for the education, training, and professional development of emergency nursing personnel to ensure optimal performance in the dynamic context of emergency healthcare. The core competency standards identified, including practical ability, critical thinking, management, communication, pre-check triage, professional development, observation, teamwork, emergency response, knowledge base, operational skills,

clinical judgment, and rational arrangement, offer a comprehensive guide for constructing competency-oriented emergency specialist nurse training programs. These standards reflect the current situation of domestic emergency specialist nurse training and highlight the need for a flexible and adaptive approach to address the diverse challenges and responsibilities faced by emergency nurses. Overall, the research findings provide a solid foundation for the training and ability evaluation of emergency specialist nurses, contributing to the continuous improvement of emergency nursing practice.

**Professional knowledge and practical abilities.** In the healthcare and emergency response domain, participants emphasize the paramount importance of cultivating a profound understanding of emergency medicine, clinical technical operations, and theoretical knowledge related to critical diseases. This extends beyond theoretical comprehension, focusing on practical abilities in applying emergency equipment and hands-on skills. S2 noted, "I think the core competencies for emergency department nurses should primarily be, including professional knowledge and professional practical abilities."

Practical abilities and professional knowledge are indispensable core competencies in emergency nursing, crucial for delivering immediate and specialized care in critical conditions. Emergency nurses play a vital role in understanding diverse and complex medical conditions, requiring a strong grasp of the latest advancements, protocols, and treatment modalities. S4 underscored this by stating, "...It is also necessary to master the basic theoretical knowledge of some critical and severe diseases that are common in emergency departments..."

This holistic perspective, integrating knowledge and practical expertise, forms the foundation for effective emergency care. Nurses need to adapt to evolving situations, applying evidence-based practices in the dynamic and high-stakes environment of emergency care. Practical abilities, including rapid assessment, critical thinking, and effective communication, are equally vital. S3 emphasized, "I think the most important thing for an emergency specialist nurse is to have the practical ability to specialize in emergency medicine."

The research underscores the critical importance of a comprehensive approach to healthcare, advocating for a balance between theoretical understanding and practical skills. Participants stress the essential role of professional knowledge and practical abilities in navigating the complexities of emergency nursing, where swift and informed decisions, hands-on proficiency, and effective communication are imperative for optimal patient care in time-sensitive situations.

**Communication and coordination skills:** In the healthcare domain, effective communication stands out as a cornerstone for successful collaboration, fervently endorsed by team members and participants. The seamless exchange of information among team members, patients, and healthcare professionals is deemed indispensable. S4 highlighted this, stating, "Our department now pays more attention to the ability to triage and classify patients, as well as the ability to coordinate and communicate." S7 further emphasized, "...the ability to manage care, and then also have the ability to organize and communicate."

Communication and coordination skills are indispensable core competencies in emergency nursing due to the critical nature of the healthcare environment during emergencies. In the fast-paced setting of emergency departments, effective communication is crucial for delivering timely and accurate patient care. Nurses must convey crucial information to interdisciplinary teams, ensuring a coordinated and cohesive response. This extends to interactions with patients, where skillful communication of complex medical information with compassion and empathy is vital during times of distress.

Coordination skills are equally essential in emergency nursing, enabling nurses to seamlessly orchestrate various aspects of patient care. This involves organizing resources, mobilizing personnel, and

managing workflows to address multiple emergencies simultaneously. The ability to coordinate efforts ensures timely interventions for optimal patient outcomes.

This collective commitment to fostering communication and coordination underscores a shared dedication to optimizing patient care and enhancing the overall efficacy of the healthcare system. In the dynamic and often chaotic context of emergency nursing, these competencies are fundamental for providing efficient and compassionate care.

**Critical thinking and judgment.** Critical thinking, a cornerstone skill in healthcare, particularly in clinical decision-making, is indispensable for responding to complex scenarios. Emergency nursing professionals emphasize its crucial role in assessing risks associated with various diseases. S5 underscored this, stating, "It is mainly an emergency response ability and a judgment on the condition of critically ill patients." This ability involves swift observation, predicting potential risks, and preventing further changes in a patient's condition.

The multifaceted nature of critical thinking is illuminated by emergency nursing professionals' testimonials. Their narratives reveal that the core ability of emergency department nurses lies in adeptly observing critically ill patients, enabling effective first aid response. S5 emphasized the importance of anticipating changes in a patient's condition, showcasing the vital role of critical thinking in dynamic emergency healthcare.

Another professional, S3, highlighted the broader application of critical thinking, stating, "For example, now I am an N3 nurse, and as a teacher, I should also have critical thinking." This emphasizes the pervasive importance of critical thinking across diverse nursing roles, extending beyond emergency response to roles like teaching.

These testimonials collectively underscore the foundational and pervasive nature of critical thinking in healthcare. It not only permeates emergency care but also extends to various nursing roles, emphasizing its status as an essential skill for effective healthcare delivery.

**Nursing management and quality assurance.** In healthcare, participants stressed the paramount importance of nursing management abilities, emphasizing their pivotal role in ensuring effective patient care. Beyond clinical skills, there's a growing recognition of the need for robust quality and risk management capabilities within nursing leadership. The following quotations from study participants substantiate the acquisition of this core proficiency:

The ability to solve health problems, as well as the ability to monitor quality and ensure this. (S1)

There is also the ability to monitor and ensure quality... (S7)

Quality and risk management capabilities, teaching and scientific research consulting capabilities... (S10)

These sentiments align with the evolving healthcare landscape, demanding multifaceted competencies from nursing leaders. Nursing management abilities go beyond clinical aptitude, encompassing a broader spectrum that includes navigating quality and risk management challenges. Participants' observations highlight nursing leaders' pivotal role in maintaining high standards of patient care and proactively addressing potential risks. This recognition aligns with the contemporary healthcare paradigm, emphasizing adaptability and foresight in effective leadership. As participants emphasize the acquisition of core proficiencies, it is evident



that nursing leadership, equipped with diverse skills, is crucial for steering healthcare institutions toward optimal patient outcomes in an environment characterized by complexity and dynamic challenges.

**Team collaboration and integration.** In the dynamic healthcare landscape, effective teamwork holds paramount significance, as participants actively emphasize the seamless integration of individual abilities into a cohesive team framework. This imperative spans various dimensions, from fostering open lines of communication and collaboration to ensuring adept coordination within the broader hospital community, especially in emergencies. As stated by S1, “There is also the ability of our team to communicate and collaborate,” echoing the sentiment shared by other participants, such as S2, S3, S6, S7, and S11. These sentiments collectively affirm the paramount importance of fostering robust channels for team interaction and joint problem-solving. The emphasis goes beyond verbal exchange, encapsulating a nuanced understanding of each team member’s strengths and the integration of diverse skill sets. This collaborative synergy, as emphasized by S3, extends beyond individual capabilities, embodying a collective strength that surpasses the sum of its parts. Acknowledging the significance of these teamwork attributes, especially in emergencies, reinforces the idea that effective communication and collaboration enhance overall team efficiency and are instrumental in optimizing patient care outcomes. The convergence of these perspectives substantiates the centrality of teamwork skills in navigating the intricate healthcare landscape, where seamless coordination and collaboration are integral to success.

**Continuous learning and professional development.** In the dynamic field of emergency nursing, participants stress the paramount significance of maintaining a continuous learning mindset, rooted in a commitment to perpetual learning. This collective sentiment reflects a shared eagerness to consistently update and expand their knowledge base, highlighting a deep-seated desire to enhance proficiency and adaptability. As expressed by S4, “I think the emergency nurse should have the ability to continue learning, the desire to update this kind of knowledge, and the ability to acquire these new skills and new and updated knowledge points. This is a way of learning.” This emphasis on continuous learning is seen as not just a professional obligation but also a strategic response to the rapid evolution of practices and technologies in emergency nursing.

In alignment with the sentiments expressed, participants advocate for a proactive approach to professional development, fostering a culture that values learning and actively seeks out opportunities for growth and innovation. S11 emphasized the importance of training in improving professional abilities, stating, “Vocational and professional abilities may be relatively insufficient, and perhaps what he should possess more may be some basic abilities. I think through training, it is basically to improve professional abilities... when an emergency occurs, the ability to coordinate with superiors and the entire hospital is achieved. I think these can be improved through training.” The call for ongoing education emerges as a cornerstone, enabling practitioners to navigate the ever-changing landscape of emergency nursing with resilience and efficacy.

This framework of perpetual learning and skill development aligns seamlessly with the notion that honing basic abilities through training contributes to the overall proficiency of emergency nurses. It acknowledges the malleability of expertise and underscores the shared belief that continuous learning is essential for effectively addressing the multifaceted challenges inherent in their critical roles.

**Attitude and patient-centered care.** Practitioners in emergency nursing highlight the paramount importance of cultivating a professional attitude encompassing commitment to excellence, compassion, and adaptability. These healthcare professionals, as first responders in the healthcare system, emphasize a patient-centered approach, recognizing the uniqueness of each individual under their care and providing personalized attention. Emergency nurses exemplify resilience and dedication, combining technical expertise with genuine empathy to navigate the unpredictable nature of their field. Direct quotations from research subjects reinforce the implementation of this fundamental capability.

According to S1, "There is also our professional quality and the ability to develop professional attitude." This underscores the indispensable facets of professional attitude. S3 emphasized, "I think the most important thing for an emergency specialist nurse is to have the practical ability to specialize in emergency medicine. There is also the professional attitude." S11 linked professional practical ability with a compassionate work attitude, stressing the need for patience and meticulous care when interacting with patients.

The sentiments expressed by research subjects highlight the crucial dimensions of a professional attitude in emergency nursing. S1 emphasized professional quality and attitude, echoed by S3, who sees practical ability and a professional attitude as critical components. S11 further connected professional practical ability with a compassionate work attitude, underlining the necessity of patient care with professionalism. These insights provide valuable context to the implementation of this fundamental capability in the dynamic and challenging field of emergency healthcare.

**Emergency response and crisis management.** In the dynamic realm of healthcare, emergency nurses play a pivotal role, possessing a unique skill set tailored to respond to various emergencies and manage critical cases. Their responsibilities extend beyond traditional medical crises to include the nuanced challenges of public health emergencies. Testimonies from research subjects emphasize the assimilation of these core proficiencies.

S5 highlighted the crucial role of observation, stating, "I think the ability to observe first aid is the most important core ability of emergency department nurses." This keen observation not only assesses the patient's current condition but anticipates potential changes, showcasing the proactive nature of emergency nurses. S10 underscored the comprehensive proficiency of emergency nursing, encompassing professional development, vast knowledge, and adept case management.

These insights illuminate indispensable qualities in emergency nursing. S5's emphasis on observation showcases the proactive nature of nurses in safeguarding patient well-being. S10's comprehensive skill set demonstrates their versatility as frontline responders capable of addressing a spectrum of challenges in the evolving landscape of emergency healthcare. The multifaceted expertise of emergency nurses, as highlighted by respondents, reinforces their vital role in the broader healthcare ecosystem.

#### **Core competencies in emergency nursing according to panel of experts**

The identified core competencies for emergency specialist nurses, as derived from extensive research and expert consultation, span seven dimensions, each essential for success in the dynamic field of emergency nursing. These competencies serve as a comprehensive framework, guiding both individual practitioners and healthcare institutions. The following summarizes each dimension:

**Comprehensive understanding of emergency clinical nursing.** A cornerstone competency involves a deep understanding of emergency clinical nursing theories, techniques, and equipment usage. This includes the ability to respond effectively to public emergencies, emphasizing the importance of communication, collaboration, and swift decision-making.

**Integration of professional knowledge, critical thinking, and teamwork.** Success in today's dynamic work environments requires a blend of professional knowledge, critical thinking abilities, and effective communication and coordination within a team context. This multifaceted competency forms the bedrock for high-performance teams, fostering innovation and productivity.

**Patient-centered care attitude.** A paradigm shift toward patient-centered care is identified as a paramount competency. This approach transcends traditional models, considering patients' unique values,

preferences, and circumstances. It emphasizes a holistic philosophy, actively involving patients in decision-making for improved health outcomes

**Integration of knowledge, skills, attitudes, and values.** Success is contingent on seamlessly integrating knowledge, skills, attitudes, and values across hierarchical levels. This competency extends beyond individual expertise, resonating at organizational and systemic levels, fostering a synergistic environment that promotes innovation, adaptability, and sustained excellence

**Proficiency in handling emergency instruments, and equipment.** Essential for emergency response and disaster management, proficiency in handling emergency instruments and equipment is crucial. This competency ensures responders possess the necessary expertise to navigate evolving situations, minimizing casualties, mitigating damage, and facilitating swift recovery.

**Mastering fundamental life-saving techniques.** Anchoring the swift provision of aid, mastering fundamental life-saving techniques requires a comprehensive understanding of medical protocols, first aid principles, and the ability to apply them seamlessly in high-pressure situations. Proficiency in these skills saves lives and minimizes long-term impact.

**Understanding and implementing emergency-related norms and protocols.** A core competency at the forefront of effective crisis mitigation involves understanding and implementing emergency-related norms, systems, and safety management protocols. This multidimensional competency encompasses a broad spectrum of knowledge and skills, ensuring adaptability and efficacy in real-world scenarios.

Expert consultation involving 17 professionals from various nursing backgrounds validated these competencies. The iterative Delphi process refined and solidified the core competencies, resulting in a comprehensive framework that serves as a guiding principle for training programs and educational preparations in emergency nursing. The robustness of these competencies positions emergency specialist nurses to thrive in the intricate and ever-evolving landscape of their field.

## V. Discussion

The core competencies for emergency specialist nurses serve as a crucial link between theoretical foundations and practical applications in the dynamic field of emergency nursing. The interplay between these competencies and insights from the literature reveals a comprehensive framework aligning theoretical principles with actionable practices.

The literature underscores the vital need for a profound understanding of emergency clinical nursing theories, techniques, and equipment usage, emphasizing effective responses to public emergencies. This aligns with a competency that requires healthcare professionals to navigate high-stakes situations through communication, collaboration, and swift decision-making, as highlighted in theoretical discussions.

The multifaceted competency of integrating professional knowledge, critical thinking, and teamwork resonates with literature's emphasis on seamless collaboration within healthcare teams. The necessity for individual excellence, critical thinking prowess, and effective communication aligns with literature's insights into high-performance teams in emergency nursing requiring a combination of specialized knowledge, sound decision-making, and collaborative skills.

The paradigm shift towards patient-centered care, emphasized in the literature, is reflected in the core competency of cultivating an attitude grounded in patient-centered care. Aligning with literature's call for a

holistic approach considering individual patient values, preferences, and circumstances, the competency focuses on fostering a deep understanding of patients' needs and involving them in decision-making processes.

The literature's emphasis on the interconnectedness of knowledge, skills, attitudes, and values echoes the identified competency's focus on fostering holistic competence and comprehensive expertise crucial for effective leadership and collaboration in emergency nursing.

Proficiency in handling emergency instruments and equipment, identified in the literature, reinforces the competency's requirement for practical competence alongside theoretical knowledge. The literature underscores the importance of adaptability and awareness of the dynamic nature of emergencies, aligning with the competency's emphasis on making split-second decisions under high-pressure scenarios.

The mastery of fundamental life-saving techniques, a cornerstone competency, aligns with literature's discussion on the multifaceted nature of mastering such skills. The competency's focus on a comprehensive understanding of medical protocols and the practical application of first aid principles corresponds to literature's assertion that these skills save lives and minimize the long-term impact of emergencies.

The competency of understanding and implementing emergency-related norms and protocols resonates with the literature's exploration of regulatory frameworks governing emergency response. The competency's multidimensional nature aligns with literature's recognition of the need for both theoretical grasp and practical application of protocols tailored to diverse contexts.

In conclusion, the identified seven core competencies bridge theoretical and practical aspects of emergency nursing, validating literature insights, and offering a comprehensive guide for training programs. The interplay between theory and practice, as evidenced by these competencies, underscores the dynamic and evolving nature of emergency nursing in ensuring optimal patient outcomes and effective crisis response.

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