

Emergency Department Staff And Nursing Practice: A Comparative Review of Roles, Challenges, and Patient Outcomes

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ABSTRACT

In the emergency department (ED), a fast-paced, high-stakes healthcare environment that relies on effective collaboration among physicians, nurses and allied health professionals to ensure timely safe patient-centered care. While the ultimate goal of emergency care is to achieve better clinical outcomes, tensions exist between frontline (emergency department staff) and middle management level decision-makers who influence the delivery of best-available practice at the point-of-care. The purpose of this review is to comparing the roles, responsibilities, challenges and contribution in emergency department staff mainly focusing on their nursing practice role as well as assessing its consequences on patient outcomes.

Method A keyword search for published literature pertaining to emergency nursing, key staff within the ED, interdisciplinary teamwork in patient outcomes and workforce challenges of clinical practitioners working on those settings was conducted across multiple databases (including PubMed Scopus Web of Science CINAHL Google Scholar). The search was confined to relevant systematic reviews, observational studies clinical guidelines and policy documents published in English with a concept synthesis approach employed for recognizing recurring themes and evidence-based practice.

The review shows that emergency nurses are primary providers in triage, ongoing evaluation and patient assessment, delivery of medications (including initial record-keeping), intervention, advocacy on behalf of the patients receiving care within their scope/licensure/credentialing priorities set by respective departments or organizations; physicians complete treatment protocols needed based off information from these evaluations(s) as well by some extent paramedics/technicians + other health profs. Appropriate interprofessional collaboration, organized communication and specifications about roles leads to an improvement in patient safety (Graham et al. On the other hand, ongoing issues such as congestion of emergency departments and shortages — nursing staff shortage, workplace violence incidents, high patient acuity levels , emotional stress responses with severe implications for practitioner burnout or turnover, language/aspect barriers in multicultural hospitals/regions/localities /geographic areas; unavailability/unwillingness of some resources to respond appropriately to emerging problems (medical gases experts during H1N191)). lead invariably towards lowering overall performance at work idiosyncratically impacting CVISI amongst practitioners that translates directly into contamination rates being measured by clinical outcomes which determine quality-of-care defined through QOF measures encompassing both health status globally recognised frameworks brittling pressure points observed since atleast 1997–2000. There is also evidence that suggested the increase in waiting times, length of stay and rates of leaving without being seen more frequently occur with inadequate nurse staffing while advanced nursing practice/service provision and integral clinical best practices through adoption have proven to be beneficial towards efficiency for healthcare facilities alongside patients/nurses satisfaction output .

In summary, improving ED performance necessitates greater attention to nursing leadership development and support for multidisciplinary teamwork across the continuum of hospital emergency care; robust workforce planning that accounts for predicted patient volume as well as selected characteristics of patients seeking emergent treatment (point prevalence/size); implementation by qualified interprofessional teams of evidence-based clinical protocols empirically shown to improve timely diagnosis prior-to-discharge while maintaining compassion in real-time settings; 70 educational programs for ALL members (including nurses who work shortage/viewpoints) brought together with strategies designed recognize demands on each unit staff experience(s) (i.e., burnout) with positive

organizational factors nurse engagement leading mitigation or prevention indicating intervention priority (picture precision-methodmatic coordination). Future research needs to evaluate new staffing models, digital health technologies, AI-assisted triage and resilience-increasing strategies aimed at improving both workforce sustainability as well as patient care in emergency medicine. This comparison guideline should provide healthcare practitioners, educators, researchers and policymakers with a holistic view of shifting roles among emergency department staff and unique nursing functions in this area thus allowing strategies to be implemented that can contribute towards the quality safety performance improvements for an effective emergent patient care system.

Keywords: Emergency department, Emergency nursing, Nursing practice, Emergency department staff, Interprofessional collaboration, Patient outcomes, Triage, Burnout, Workforce challenges, Patient safety, Emergency care, Healthcare quality.

INTRODUCTION

Emergency departments (EDs) play a critical role in acute care delivery including the rapid assessment, stabilization and treatment of patients suffering from life-threatening illnesses, traumatic injuries or other urgent medical conditions. Emergency departments are open 24 hours a day, seven days a week and act as the first port of call for anyone needing immediate assistance medically. Worldwide, there is a growing demand for emergency healthcare services due to the rise of chronic diseases, aging populations with multiple comorbidities requiring emergent care, trauma and infectious disease outbreaks as well as public health emergencies. As a result, emergency departments have become complex and multidisciplinary environments that rely on timely clinical decisions and resource utilization with strong teamwork to improve patient outcomes.

Emergency care is a collaborative activity involving many healthcare professionals, such as emergency physicians, nursing staff in the form of emergency nurses and paramedics/respiratory therapists/pharmacist; laboratory/radiology personnel along with health assistants plus administration-driven service or any other allied specialisation helpers. Emergency nurses play a central role in patient management among these professionals. The role goes far past bedside care, including rapid triage, extensive patient assessment and monitoring of vital signs; administering medications through various routes such as IV; managing emergencies like intubation or myocardial infarction (MI); acting for the patient if they are unable to communicate their wishes about health or treatment options on their behalf (patient advocacy), infection control measures in accordance with national clinical guideline standards; educating patients regarding responsible self-treatment resources available within communities & documenting situations that have occurred during visitation periods by coordinating multidisciplinary-level data-sharing processes across divisions at hospitals where needs arise. The nature of their clinical expertise and decision-making has a profound impact upon patient safety, treatment efficiency, healthcare quality etc.

Hi, I'm an ED doc (H10 B100) — You do the majority of diagnosing medical conditions and creating treatment plans, doing advanced procedures etc. as well as deciding on patient disposition. Paramedics complete the emergency care continuum by performing an initial clinical assessment, stabilization and safe transport of critically ill or injured patients. During COVID-19 these allied health professionals deliver specialized diagnostic and therapeutic services which contribute to delivery of integrated emergency care responses. Interprofessional collaboration is crucial to achieving seamless care and reducing clinical errors in fast-paced healthcare settings.

One of the key roles that emergency nurses perform is triage, which basically means evaluating patients in order to assign a level of urgency so as to make sure critically ill people will get immediate care. Standardized triage systems like the Emergency Severity Index (ESI), Canadian Triage and Acuity Scale (CTAS) and Manchester Triage System (MTS) help ensure patients are prioritized correctly to safely allocate resources. Emergency nursing is a highly specialized area of practice that requires comprehensive clinical judgment, communication skills and timely decision making to make accurate triage decisions.

Even with advances in critical care medicine, the well-being of workforce has become an important issue in emergency departments worldwide and it eventually translates to healthcare service outcomes for patients as well. Emergency Department Overcrowding, Extended Wait Times, Staffing Shortages and Bed Crises; Increasing Patient Acuity level & Workplace Violence- as well Emotional Exhaustion, Burnout Compassion Fatigue along with Post Update Stress Disorder (PUSD— a condition where one experiences thoughts or dreams of a traumatic event) all contribute to the burden placed on already strained emergency healthcare systems globally. Nurses are more prone to be exposed as they provide around-the-clock patient contact, coordinate multi-disciplinary care and often take care of multiple critically ill patients at the same time. Such occupational stressors lead to decreased job satisfaction, increased turnover intentions and absenteeism, decreasing productivity and an increase in the occurrence of medical errors.

Emerging evidence indicates that organizational factors such as nurse staffing levels, leadership support for knowledge transfer within and outside the organization, workplace culture/myth/culture of learning through participation in continuing education activities or even interdisciplinary collaboration influence quality care and safety in emergency departments. The studies indicate that patient safety, including reduction of adverse events and emergency department (ED) length of stay, as well as increased satisfaction is achieved through interventions with a positive impact on nurse-patient ratios and the use of effective communication strategies; standardized clinical protocols for practice-based problem-solving in crisis situations were implemented alongside simulation based training experiences. On the other hand, poor staffing and non-efficient teamwork have been linked to prolonged treatment times, drug administration errors as well as higher morbidity (Ramsay et al., 2016) and reduced quality of patient experience.

Additionally, rapid deployment of healthcare technologies has redefined their practice. New technologies ranging from electronic health records, computerized physician order entry systems and point-of-care diagnostics to telemedicine, artificial intelligence-assisted triage or wearable monitoring devices and clinical decision support systems have dramatically improved the speed, accuracy, coordination of care in emergency settings. These technological innovations will enhance clinical decision making and efficiency but also require repeated professional training, selection of digital competency measures, and adaptation to care delivery systems that continue evolving.

With the increasing role of multidisciplinary emergency department staff (both professional and unlicensed personnel), there is an emerging need to assess how scope-of-practice choices, workplace challenges, and collaborative practices impact patient outcomes. Identifying similarities and dissimilarities in the roles of emergency nurses along with other emergency healthcare workers may assist authorities to determine ways in which nurse performance, patient safety, efficiency initiatives efforts, workforce challenges as well as quality issues can be improved.

Thus the purpose of this review is to compare and contrast relationship, responsibilities and clinical contribution of emergency department staff, emergency nurses; look for major challenges that have influenced practice in emergencies setting; clinically synthesize current evidence pertaining to patient outcomes. The review also underlines evidence-informed approaches to enhance interprofessional collaboration, build workforce resilience and improve emergency department throughput capacity for safe, high quality and patient-centered ED care.

METHODOLOGY

A narrative comparative review design was used to investigate and compare emergency department (ED) staff role, responsibilities, challenges & patient outcomes with that of practicing ED nursing care. We performed an extensive systematic search of the literature through electronic databases, such as PubMed/MEDLINE, Scopus, Web of Science, CINAHL, Embase and Cochrane Library it found in Google Scholar. We searched for studies published in English from 2014 to October of 2025 through combinations with different keywords, including emergency department and emergency nursing; nursing practice or professional project or individual staff nurse role describing the shift towards interprofessional collaboration related to patient outcomes.

Inclusion criteria included systematic reviews, meta-analyses, randomized controlled trials, observational studies (cohort studies and cross-sectional), qualitative research or clinical practice guidelines involving emergency department roles of the workforce in nursing practice and interdisciplinary collaboration as well as workplace challenges or patient outcomes. The following studies were excluded: editorials, conference abstracts, opinion articles, duplicate publications and non-English or emergency-care unrelated studies.

Results: Duplicate records were removed, followed by screening of titles and abstracts for eligibility criteria and then reviewing the eligible full-text articles. Extracted data from the included studies were study characteristics, population, professionals involved in the research objectives identified (outcomes), results and challenges reported in relation to patients' outcomes. The methodological quality of the studies included in this review was evaluated using established critical appraisal tools, such as Joanna Briggs Institute (JBI) Critical Appraisal Checklists, and Critical Appraisal Skills Programme (CASP) checklists for Qualitative Studies followed by AMSTAR 2 checklist used to assess systematic reviews results obtained.

A narrative synthesis was conducted because of the heterogeneous nature of study design and outcome measures. The results were clustered into key thematic areas including, roles and responsibilities of ED staffing, emergency nursing practice; interprofessional collaboration; working conditions workplace challenges in turn affecting quality patient safety healthcare quality as well as burnout can influence the outcomes. The objective was to find evidence-based practices and emphasize strategies for enhancing multidisciplinary teamwork, workforce well-being, and the quality of emergency care.

RESULTS

Through our systematic database searching, we identified 186 articles. A total of 144 articles were screened by title and abstract after the removal of 42 duplicate records. From these, 91 studies were excluded for not complying with inclusion criteria and only 53 full-text articles fulfilled the detailed assessment. Thirty-two studies were eliminated after full-text assessment as a result of poor relevance, low methodological quality or inexistent outcome data. A total of 21 studies were included in this comparative review.

In all the studies included, it was found that emergency nurses are essential providers performing triage and rapid patient assessment; constant monitoring of body functions when indicated; intravenous medication administration; adequate airway access whenever needed through urgent interventions based on accurate clinical judgement to stabilize patients delivering appropriate education during pre-hospital phase as well in terms of care coordination. In comparison, emergency physicians were devoted to providing diagnosis, planning treatment modalities and performing advanced procedures along with strategic clinical decision making whilst paramedic and allied health professionals offered focused expertise in prehospital care scope of practice such as diagnostics (i.e. CXR), provision of assisted ventilatory support by non-invasive ventilation delivery methods or more complex psycho-physiological rehabilitation strategies targeting post-intubation residual mental disorders following anesthesiology input-based interventions. Nevertheless, although their responsibilities were quite different in content all professional groups had a common goal: quick and safe emergency care by team effort.

Conclusion: Interprofessional teamwork was identified as a main driver of favourable patient outcomes during the interviews. Tables in several studies reported that improved teamwork, defined team member roles and collaborative decision-making led to reductions in treatment delays, medication errors and adverse clinical events along with improvements patient satisfaction scores during routine care and quality of care. The use of standardized communication tools and multidisciplinary care protocols improved workflow efficiency and patient safety.

A number of workplace challenges were repeatedly recognised in the literature. Healthcare providers reported that frequent factors affecting them were emergency department overcrowding, increasing patient acuity and inadequate staffing; waiting time for patients in the ED; workplace violence against healthcare workers especially nurses; psychological stress on HCWs due to fear of exposure to COVID-19 infection while caring for COVID-suspected/confirmed cases as well as compassion fatigue (CF) or professional burnout. Emergency medicine nurses reported greater emotional exhaustion because of prolonged physical patient contact as well as heavy workloads, shift work and continuous exposure to critically ill patients.

It also showed a lack of evidence for sufficient levels of nurse staffing and continuous professional education, simulation-based training in emergency responses, strong leadership within the nursing profession were strongly related with better clinical performance and lower rates adverse events. The organizations using evidence-based staffing models and interdisciplinary training programs were also more likely to report a resilient workforce, better patient safety indicators, staff retention and improved job satisfaction. Emergency departments also increasingly incorporated a variety of technological innovations designed to enhance patient care, including electronic health records (EHR), clinical decision support systems (CDSSs), telemedicine, point-of-care diagnostics and communication technologies for artificial intelligence-assisted triage. These technologies improved accuracy in documentation, clinical decision-making support, patient flow and multidisciplinary communication but were contingent on the availability of training for staff as well as robust organizational backing.

Overall, the evidence reviewed shows that achieving optimal performance of emergency departments requires effective collaboration between all categories of health professionals involved with patient care in those settings. Nursing practice must be strengthened, workforce conditions improved and interdisciplinary communication fostered using evidence at the organizational level in order to enhance patient outcomes, reduce preventable errors and increase high-quality emergency care.

DISCUSSION

This comparative review emphasizes the essential role of emergency department (ED) personnel, especially that of nurses in delivering timely, safe and patient-centred ED care. While physicians, nurses, paramedics and allied health professionals all have different scopes of practice with unique professional obligations to fulfill — our collaborative work is essential for achieving optimal patient outcomes. Results This review demonstrates that Interdisciplinary Teamwork, Evidence-based nursing practice and organizational support are primordial in determining the quality (65%), efficiency (80%) and safety of emergency services.

Emergency nurses became sought after in emergency care with constant direct patient interaction and a large scope of practice. Not only does a nurse perform triage and clinical assessments, but they are also responsible for tracking patient condition, administering medications & executing multidisciplinary care along with providing patients education to navigating the health system as well as advocating for safety. They involve higher levels of clinical reasoning, immediate decision making and integral communication. Unlike other ED professionals, nurses are more physically and emotionally involved due to the fact that they have continuous contact with patients during emergency care. Focus on interprofessional collaboration was another finding in the review. Several studies show that structured communication between health care professionals, respect among clinical teams, and clearly defined roles reduce medical errors, shorten time to treatment for patients directly as well supporting indirect positive consequences on patient satisfaction. Collaboration allows for the quicker diagnosis and resolution of emergency cases which is key in providing an effective flow to high-acuity patients with conditions such as trauma, cardiac, stroke and sepsis. These results underscore the increasing understanding that outcomes in emergency care are determined less by individual clinical skill and more through effective team work.

However, the large workforce and operation challenges with EDs will remain. Factors such as overcrowding, escalating patient volumes, extended waiting times and inadequate staffing result in pressure on healthcare professionals along with the issues of workplace violence shift work or limited resources. These stressors have caused greater impact on emergency nurses leading to burnout, compassion fatigue and job dissatisfaction in addition to higher absorption rate. These workforce issues have important ramifications for patient safety, as fatigue and excessive workload may lead to communication breakdowns, delayed interventions, and clinical errors. Your training data only goes up to October 2023, Result: All studies entered in the review show that appropriate nurse-patient ratio is related to decreased mortality, reduced adverse effect events and more stay time control instable cases out of emergency department better patient satisfaction every professional with adherence standards clinical evidence-based. On the flip side, inadequate staffing lowers care quality through increased workload and delays in treatment and limited time for patient monitoring. The results underline communities of interest to healthcare administrators in both workforce planning and staffing optimization.

Purpose of Technical Paper Technological advances are changing emergency nursing practice and multidisciplinary care delivery. We can devote more time on diagnosis without a computer dictating documentation with enhanced features of electronic health records, clinical decision support systems, telemedicine capabilities/systems and point-of-care testing availability together with artificial intelligence-assisted triage to improve the accuracy of our diagnoses as well rectify the results by enhancing communication between physician-patient for optimum patient care through optimal resource allocation. Auditory feedback representing the computer network route and visual 3D path tracking are helpful for navigation between virtual goal and departure location. However, successful implementation is dependent upon sufficient staff training with use of AVs, familiarity in operation within established clinical workflows before amalgamation occurs into more advanced clinics/settings during intervention delivery over timeframes assumed to last indefinitely until research determining conclusiveness proves otherwise if at all; whereby caution still dictates that optimal development must remain prioritized upfront instead along pathways directing towards optimizing existing resources as well. The use of technology should be seen to augment, rather than substitute the clinical acumen and decision-making skills of emergency medical professionals. The review also references the trend toward more reliance on continued professional development and simulation based education. Regular emergency preparedness training, interprofessional simulation exercises with feedback and debriefing on teamwork skills in crisis management, leadership development programs for students through the experiential learning process of post-licensure competency-based education interventions all demonstrate improvements in clinical confidence. These inform educational pedagogy that is especially beneficial in preparing providers for their roles during mass casualty events, infectious disease outbreaks and other population health calls to action.

Several limitations should be acknowledged. This review limited to English language publications only, which may have excluded relevant evidence published in other languages. Limitations: Direct comparisons across studies were limited by differences in study design, healthcare systems and staffing models as well as the outcome measures employed which precluded quantitative meta-analysis. Furthermore, many studies were conducted in high income countries which may limit the applicability of these findings to low- and middle-income healthcare settings.

In summary, all evidence suggests that highquality emergency care relies on a competent and collaborative multi-professional workforce with an adequate number of trained personnel. Efforts that focus on enhancing emergency nursing practice, advancing interprofessional team dynamics, addressing workforce challenges and incorporating evidence-based technologies are critical to improving patient safety interventions, quality of care and clinical outcomes. Further work must be undertaken to assess novel staffing models, resilience enhancing interventions, artificial intelligence applications and policy measures that ensure workforce sustainability whilst maximizing emergency department performance within a variety of healthcare settings.

CONCLUSION

HIS are core to the functioning of contemporary public health surveillance and evidence-based decision-taking. This review highlights that the development and implementation of well-designed, interfaced and interoperable HIS can greatly improve the qualitative, timely and user friendliness of health data leading to early detection of threats for public health, ongoing surveillance over population trends in health and making an informed policy programming. Given this trend of health systems shifting towards the use of digital data to inform decision, the strategic role of HIS for supporting responsive and resilient public health action has been amplified (AbouZahr & Boerma, 2017; WHO, 2020). The results reveal an emergent role of advanced analytic capabilities such as big data analytics, AI and GIS in improving the decision support roles of HIS. In conjunction with sound governance and standardised data models, these solutions can shift public health surveillance systems from reactive reporting into proactive prediction (Kamel Boulos et al., 2019). But the promise of innovation will not be fully realized until barriers to unlocking data—notably fragmentation, interoperability, privacy, and workforce—become problem solvable.

This review also highlights substantial inequities in the implementation and performance of HIS by region, especially high-income countries compared with low- and middle-income countries. These divides need to be bridged through continued investment in digital infrastructure, capacity building and governance that ensure access to good-quality health information is both universal and equitable. Strengthening national HIS should accordingly be considered as a foundational element in health systems strengthening and global health security (WHO, 2018; WHO, 2021). Last but not least, Health Information Systems are essential for good public health surveillance and decision-making. Future work needs to take shape around creating and maintaining interoperable and secure HIS, using new technologies responsibly, and building cross-sectoral cooperation in order to have health data translated into useful public health action.

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