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EMERGENCY NURSING PRACTICE: A REVIEW OF CHALLENGES, COMPETENCIES, AND STRATEGIES TO IMPROVE PATIENT OUTCOMES

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ABSTRACT

Background: Emergency nursing requires timely clinical assessment, effective decision-making, and coordinated care within demanding practice environments. Crowding, staffing constraints, and gaps in professional support may affect care delivery and patient outcomes. **Objective:** To summarize evidence on challenges affecting emergency nursing practice, relevant competencies, and improvement strategies, with particular attention to their reported relationships with patient outcomes. **Methods:** A preliminary narrative synthesis was undertaken using six selected published reviews: two systematic reviews and four scoping reviews. Findings were organized into practice challenges, professional competencies, improvement strategies, and outcomes. Study counts were reported separately because overlap between the reviews' underlying studies was not assessed. **Results:** The individual reviews included between 16 and 105 studies or papers. Prominent challenges included crowding, inadequate staffing, delayed assessments, and unmet fundamental care needs. A review of 23 studies identified seven advanced practice competency domains spanning clinical care, assessment, collaboration, leadership, documentation, and decision support. Educational interventions generally supported improvements in clinical practice behaviors, while advanced nursing models showed potential benefits for treatment timeliness and patient satisfaction. However, observational designs, heterogeneous interventions, and limited controlled evaluations restricted causal interpretation and generalizability. **Conclusion:** Strengthening emergency nursing requires alignment between organizational resources, role-specific competencies, and practice improvement strategies. Improvements in professional behavior and care processes should be distinguished from demonstrated patient benefits. These findings remain provisional pending completion of the proposed scoping review.

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INTRODUCTION

Emergency departments (EDs) provide care for patients with acute illnesses and injuries whose conditions may require rapid assessment, continuous monitoring, and timely intervention. Within this environment, emergency nursing involves managing competing clinical priorities while responding to changes in patient condition and service demand. The quality of nursing care depends on both professional capabilities and the organizational conditions that enable nurses to apply them. Evidence linking ED nurse staffing with treatment delays and adverse events highlights the importance of examining emergency nursing practice as an interaction between workforce resources, clinical competencies, and care delivery processes (Drennan *et al*., 2024). One of the most persistent challenges affecting emergency care is crowding.

In their systematic review, Morley *et al*. (2018) identified multiple contributing factors, including increasing demand, complex patient needs, and difficulties transferring patients to inpatient services. Crowding was associated with poorer patient outcomes and reduced adherence to recommended treatment processes. These findings suggest that emergency nursing challenges cannot be addressed solely through changes within individual nurses' practice; they also require attention to patient flow, hospital capacity, and coordination across services. Consequently, strategies intended to improve care should correspond to the specific organizational problems affecting each setting rather than assume that a single intervention will be effective across different EDs. Staffing pressures create additional difficulties in maintaining timely and comprehensive nursing care. Drennan *et al*. (2024) found that lower ED nurse staffing levels were associated with longer

waiting times, delays in medications and therapeutic interventions, and a higher proportion of patients leaving without being seen. However, the predominance of observational studies and the limited availability of high-quality evidence restrict causal interpretation. Related concerns are evident in the literature on missed nursing care. Duhalde *et al*. (2023) identified delayed or omitted assessments and unmet fundamental care needs, with patient demand exceeding available staffing and departmental capacity frequently reported as contributing factors. Together, these findings indicate that evaluating emergency nursing practice requires consideration of both the care delivered and the care that organizational pressures prevent nurses from completing. Alongside adequate resources, emergency care requires a combination of clinical, interpersonal, and organizational competencies. In a scoping review focused specifically on advanced practice nurses in emergency and critical care settings, Yamaguchi *et al*. (2024) identified competencies encompassing acute patient care, diagnostic assessment, interdisciplinary collaboration, leadership, documentation, and support for patient and family decision-making. Although these findings should not be generalized automatically to all registered emergency nurses, they demonstrate the breadth of capabilities involved in advanced emergency care. They also emphasize the importance of distinguishing nursing roles, educational preparation, and professional scope when interpreting competency requirements and their potential contribution to patient outcomes.

Several approaches have been examined to strengthen emergency nursing practice, including educational interventions and expanded nursing roles. Considine *et al*. (2024) reported generally positive changes in emergency nurses' clinical practice behaviours following educational interventions, while identifying limited use of behaviour change theory and a need for more rigorous controlled studies. Franchini *et al*. (2026) mapped advanced nursing models involving autonomous management of selected presentations, nurse-led patient flow management, and triage-initiated investigations or treatments. Their findings suggest potential benefits, although heterogeneous evidence and predominantly single-centre studies limit transferability. These limitations underline the need to distinguish improvements in knowledge, confidence, or professional behaviour from demonstrated improvements in patient outcomes. Existing reviews therefore provide valuable evidence on staffing, missed care, competencies, education, and advanced practice. Building on these contributions, an integrated examination can clarify how reported challenges correspond to required competencies, which strategies address those challenges, and whether their evaluations include patient outcomes. Accordingly, this scoping review aims to map challenges affecting emergency nursing practice, identify relevant competencies and improvement strategies, and examine their reported relationships with patient outcomes. Particular attention will be given to distinguishing patient outcomes from care-process measures and nurse-related outcomes, identifying limitations in the evidence, and informing priorities for practice development and future research.

METHODS

Review design: This study will employ a scoping review design to map evidence on challenges affecting emergency nursing practice, relevant professional competencies, and strategies intended to improve care, with particular attention to reported patient outcomes. The review will follow the methodological guidance of the Joanna Briggs Institute (JBI), as described by Peters *et al*. (2020). Reporting will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR; Tricco *et al*., 2018). A scoping approach is appropriate because the review aims to examine the breadth and characteristics of heterogeneous evidence rather than estimate the effectiveness of a single intervention.

Protocol and review questions: An a priori protocol will specify the review questions, eligibility criteria, search procedures, study selection, data extraction, and synthesis methods. The protocol will be made publicly accessible through the Open Science Framework before formal screening. Any subsequent amendments will be documented with their dates and justifications. The review will address four questions: What challenges affect emergency nursing practice? Which competencies are described or assessed in relation to these challenges? What strategies have been implemented to support practice improvement? Which patient outcomes have been evaluated, and what gaps remain in the evidence?

Eligibility criteria: Eligibility will be organized using the Population–Concept–Context framework. The population will comprise registered nurses, including advanced practice nurses, working in hospital emergency departments. Studies involving multidisciplinary teams will be eligible when findings relevant to nursing practice can be extracted separately. Nursing roles and levels of preparation will be distinguished during analysis. The concept will encompass clinical, organizational, and workforce challenges; nursing competencies; and interventions or service changes intended to improve emergency nursing practice. Studies will not be required to address all three domains or measure patient outcomes to qualify for inclusion. Instead, the presence or absence of outcome evaluation will be recorded.

The context will include hospital emergency departments serving adult, pediatric, or mixed populations. Studies conducted exclusively in prehospital services, intensive care units, inpatient wards, or disaster response settings outside routine hospital emergency care will be excluded. Studies spanning multiple settings will be eligible only when emergency department findings can be extracted separately. Eligible sources will include peer-reviewed quantitative, qualitative, and mixed methods primary studies published in English from January 2016 to the final search date. This period is intended to capture contemporary practice while retaining a decade of evidence. The implications of date and language restrictions will be acknowledged. Editorials, commentaries, protocols, and conference abstracts without sufficient methodological and results information will be excluded. Existing reviews will support contextual understanding and citation searching but will not be included as primary evidence.

Information sources and search strategy: Searches will be undertaken in MEDLINE via PubMed, CINAHL, Embase, and Scopus. A health sciences librarian will be consulted to refine the search strategy. An initial exploratory search will identify relevant keywords and controlled vocabulary, followed by database-specific searches using subject headings and free-text terms.

The search will combine terms describing emergency departments and nursing, including "emergency nursing," "emergency department," "emergency service," and "nurse." Supplementary terms concerning competencies, staffing, workload, communication, education, and practice improvement will be tested to assess their effect on sensitivity. Searches will avoid requiring every record to mention challenges, competencies, strategies, and outcomes simultaneously. Reference lists of included studies and relevant reviews will be examined, and forward citation searching will identify additional potentially eligible studies. Searches will be updated before submission. Complete strategies, database platforms, dates, restrictions, and retrieval counts will be reported in supplementary material.

Study selection: Retrieved records will be imported into reference management software, and duplicates will be removed. Two reviewers will independently screen titles and abstracts against the eligibility criteria. Potentially eligible records will undergo independent full-text assessment by the same reviewers. Disagreements will be resolved through discussion, with a third reviewer consulted when consensus cannot be reached. Before formal screening, the reviewers will pilot the eligibility criteria on a sample of records and clarify ambiguous definitions. Reasons for exclusion at the full-text stage will be recorded. Reports that cannot be obtained despite retrieval attempts will be documented separately from reports excluded following assessment. The selection process will be presented in a PRISMA flow diagram. These procedures reflect established guidance on independent screening and transparent selection.

Data extraction: A standardized extraction form will be developed and piloted before use. One reviewer will extract data, and a second reviewer will verify all entries against the source reports. Disagreements will be resolved through discussion. Revisions to the form will be documented and applied consistently to previously extracted studies. Extracted information will include publication details, country, setting, study design, participant characteristics, nursing roles, identified challenges, competency definitions and assessment methods, intervention components, implementation conditions, comparators, outcome measures, principal findings, and study limitations. Where available, quantitative findings will include effect estimates and measures of uncertainty. Relevant qualitative findings will be extracted with sufficient context to preserve their meaning. Patient outcomes, such as adverse events and patient-reported experience, will be distinguished from process measures, such as waiting time, and nurse outcomes, such as confidence or burnout. Multiple reports from the same underlying study will be linked to avoid double counting.

Critical appraisal: Although appraisal is not mandatory for every scoping review, this review will assess methodological limitations to support cautious interpretation of findings concerning patient outcomes. Two reviewers will independently apply the relevant JBI design-specific appraisal tools, resolving disagreements through discussion. Appraisal findings will be presented by criterion rather than reduced to an arbitrary overall score. Studies will not be excluded solely because of appraisal results; identified limitations will inform the interpretation of their findings.

Data synthesis and presentation: Evidence will be summarized descriptively and synthesized using structured qualitative content analysis. Descriptive summaries will characterize publication patterns, geographical distribution, study designs, nursing roles, and outcome measures. Initial analytical categories will include practice challenges, competencies, improvement strategies, and outcomes. Additional categories will be developed inductively from the extracted evidence. An evidence matrix will examine whether studies directly investigate connections between challenges, competencies, strategies, and outcomes or merely propose such relationships. Observational associations will be distinguished from intervention effects, and improvements in knowledge or self-reported competence will not be interpreted as demonstrated improvements in patient outcomes. Statistical pooling is not planned because the review seeks to map diverse evidence rather than estimate a common effect.

Ethical considerations: The review will use published research and will not involve recruiting participants or accessing identifiable patient information. Applicable institutional requirements concerning ethics review or exemption will be confirmed. Funding, competing interests, author contributions, and relevant use of AI-assisted tools will be disclosed according to the target journal's requirements.

RESULTS

Preliminary Synthesis of Published Reviews: Six published reviews were examined to summarize evidence relevant to emergency nursing challenges, competencies, and improvement strategies. Two were systematic reviews and four were scoping reviews. Their individual evidence bases ranged from 16 to 105 included studies or papers. Their scopes differed: some addressed emergency department systems broadly, whereas others focused specifically on nursing staffing, missed care, education, or advanced practice. Crowding, staffing constraints, and incomplete nursing care were prominent findings in the selected literature. Morley *et al.* (2018) identified a mismatch between the causes of crowding and the interventions evaluated: causes frequently involved demand and difficulties transferring patients out of the ED, while solutions commonly targeted processes within the department. Duhalde *et al*. (2023) identified 20 themes concerning missed nursing care, including delayed assessment and omitted fundamental care. These findings describe organizational conditions that can restrict nurses' ability to provide comprehensive care. Drennan *et al.* (2024) reported that 10 of their 16 included papers used observational designs. Lower staffing levels were associated with longer waits, delayed medications and therapeutic interventions, longer ED stays, and an increased proportion of patients leaving without being seen. These findings establish associations; they do not independently demonstrate that staffing changes caused the observed outcomes. Yamaguchi *et al*. (2024) identified seven advanced practice competency domains: advanced nursing practice, acute patient care, diagnostic assessment, interdisciplinary collaboration and consultation, leadership and system management, documentation, and support for patient and family decision-making. These findings relate specifically to advanced practice nurses in emergency and critical care settings and should not be interpreted as a validated competency framework for every emergency nursing role.

Table 1. Characteristics and study counts of the six published reviews

Review	Design	Focus	Number included in the original review	Principal reported finding
Morley et al. (2018)	Systematic review	ED crowding: causes, consequences, and solutions	102 studies	Crowding was associated with poorer outcomes and reduced adherence to recommended care; solutions often focused on internal patient flow despite wider system causes.
Duhalde et al. (2023)	Scoping review	Missed nursing care in EDs	55 studies	Delayed assessments and unmet fundamental care needs were reported, frequently alongside demand exceeding staffing and departmental capacity.
Drennan et al. (2024)	Systematic review	ED nurse staffing and quality of care	16 papers	Lower staffing was associated with delays, more patients leaving without being seen, and adverse events; high-quality evidence remained limited.
Yamaguchi et al. (2024)	Scoping review	Advanced practice nursing competencies in emergency and critical care	23 studies	Seven competency domains were identified across studies from eight countries.
Considine et al. (2024)	Scoping review	Education and emergency nurses' clinical practice behaviours	25 studies	Educational interventions generally produced positive behavioural changes, but theoretical foundations and controlled designs were limited.
Franchini et al. (2026)	Scoping review	Implementation of advanced nursing competencies in EDs	105 studies	Three advanced nursing role categories were identified; reported benefits included shorter waits, although evidence was heterogeneous and largely single-centre.

Sources: Morley et al.; Duhalde et al.; Drennan et al.; Yamaguchi et al.; Considine et al.; and Franchini et al.

Note. These counts must not be added together as a total of unique studies. Overlap between reviews has not been assessed, and some reviews include settings or professional roles beyond the proposed review's eligibility criteria.

Table 2. Selected numerical findings and their interpretation

Evidence area	Verified numerical finding	Interpretation
Staffing evidence	10 of 16 papers were observational	Causal conclusions about staffing and outcomes remain restricted.
Missed nursing care	20 themes were derived from 55 studies	Missed care encompasses multiple activities; this is not a prevalence estimate.
Advanced practice competencies	Seven domains identified from 23 studies in eight countries	Competencies extend across clinical, collaborative, and organizational functions.
Educational delivery	Education sessions appeared in 24 of 25 studies	Sessions dominated the evaluated interventions; this does not establish their superiority.
Educational theory	Seven of 25 studies reported underpinning theoretical frameworks	Theoretical justification was reported in a minority of studies.
Advanced nursing models	Three role categories identified across 105 studies	Models varied in responsibilities and implementation context.

**Sources: Drennan et al.; Duhalde et al.; Yamaguchi et al.; Considine et al.; and Franchini et al.*

Educational strategies were examined by Considine *et al*. (2024). Education sessions appeared in 24 of 25 studies, while only seven studies reported underpinning theoretical frameworks. Franchini *et al*. (2026) identified three advanced nursing models: autonomous management of selected presentations, nurse-led patient flow management, and triage nurse ordering. Together, these reviews describe approaches targeting professional behavior and service organization, although they do not establish a single best strategy across settings.

The selected reviews reported several distinct outcome categories. Staffing research examined care-process measures, including treatment timeliness and ED length of stay, alongside safety events. Educational research primarily addressed nurses' clinical practice behaviours. Advanced nursing models were evaluated using measures that included waiting times, clinical effectiveness, and patient satisfaction. These outcomes should remain separate in the synthesis: improved professional behaviour or faster care cannot

DISCUSSION

This preliminary synthesis of six published reviews suggests that emergency nursing practice is shaped by the interaction between organizational conditions, professional competencies, and the implementation of improvement strategies. Crowding, staffing constraints, and missed care represent related challenges, while education and advanced nursing roles offer potential approaches to strengthening care delivery. However, the evidence varies substantially in scope, design, and outcome measurement. The findings therefore support a coordinated approach to practice improvement while providing limited grounds for identifying a single strategy that consistently improves patient outcomes across emergency departments. Organizational pressures emerge as an important consideration when interpreting nursing performance. Morley *et al*. (2018) identified a mismatch between the causes of emergency department crowding and the solutions commonly evaluated. Although crowding frequently reflected wider problems involving service demand and patient transfer, interventions often concentrated on processes within the emergency department.

This distinction matters because nurses may be expected to improve timeliness and maintain comprehensive care while working within constraints that extend beyond their professional control. A reasonable implication is that nursing improvement initiatives should be aligned with hospital capacity, patient flow, and coordination across services rather than evaluated solely through individual performance indicators.

The relationship between staffing and missed care further illustrates the importance of the practice environment. Drennan *et al*. (2024) reported associations between lower staffing levels and delayed treatment, longer waiting times, and adverse events. Duhalde *et al*. (2023) similarly identified delayed assessments and unmet fundamental care needs in settings where patient demand exceeded available resources. Considered together, these findings suggest that evaluating care quality requires attention to activities that are delayed or omitted, alongside those that are completed. Nevertheless, the predominance of observational evidence limits causal interpretation, and the selected reviews do not establish a universally applicable staffing threshold. Local decisions should therefore consider patient acuity, nursing workload, skill mix, and departmental organization. Professional competence remains essential, but its contribution must be interpreted within these organizational conditions. Yamaguchi *et al*. (2024) identified advanced practice competencies spanning clinical assessment, collaboration, leadership, documentation, and patient and family decision-making. Their findings demonstrate that advanced emergency care requires capabilities extending beyond technical procedures. However, these domains were identified for advanced practice nurses across emergency and critical care settings. Applying them directly to all emergency nurses could obscure differences in preparation, authority, and responsibilities. Competency development should consequently be matched to clearly defined roles, with assessment distinguishing demonstrated clinical performance from self-reported confidence.

Educational interventions provide one route to developing these capabilities. Considine *et al*. (2024) reported generally positive changes in emergency nurses' clinical practice behaviors, although relatively few studies described underpinning theoretical frameworks. These limits understanding of why interventions worked, which components were necessary, and whether similar effects could be reproduced elsewhere. The findings also highlight the need to distinguish educational success from clinical benefit. Increased knowledge or improved professional behavior may represent important intermediate outcomes, but they do not independently demonstrate reductions in patient harm. Future educational evaluations should examine whether learning transfers into sustained practice and whether that transfer is accompanied by measurable patient benefits. Expanded nursing roles represent a complementary organizational strategy. Franchini *et al*. (2026) described models involving autonomous management of selected presentations, nurse-led patient flow management, and triage nurse ordering. Reported benefits suggest that advanced nursing practice may improve access and timeliness in appropriate settings. Nevertheless, heterogeneous interventions and predominantly single-centre evidence restrict generalizability. Implementation should account for local regulation, educational preparation, clinical governance, and access to consultation. Evaluation should also distinguish shorter waiting times from improvements in safety or clinical effectiveness, since faster care alone does not establish better overall outcomes.

An important methodological issue concerns the diversity of outcomes across the selected reviews. Patient safety events, patient experience, treatment timeliness, nurse behaviour, and organizational efficiency represent different dimensions of performance. Combining them under a single category of "improved patient outcomes" could overstate the evidence. Future research should specify the proposed pathway linking an intervention to its intended effects and measure outcomes at appropriate intervals. Controlled or longitudinal evaluations, clearer descriptions of intervention components, and reporting of implementation conditions would help clarify which strategies are effective, for whom, and under what circumstances. These interpretations remain provisional. The six reviews were selected for preliminary contextual synthesis rather than identified through the completed search and screening procedures described in the proposed Methods. Their underlying studies may overlap, and their populations, settings, and publication periods differ. No formal assessment of review quality or overlap was undertaken for this synthesis. Accordingly, these findings can inform the planned review and its analytical framework, but they cannot establish the completeness of the evidence, rank interventions reliably, or support definitive practice recommendations.

CONCLUSION

This preliminary synthesis suggests that emergency nursing practice is shaped by the interaction between organizational resources, professional competencies, and care delivery processes. Crowding, staffing constraints, and missed nursing care highlight the importance of supportive practice environments, while educational interventions and advanced nursing roles offer potential opportunities to strengthen care. However, improvements in nurses' knowledge, confidence, or practice behaviors should be distinguished from demonstrated improvements in patient outcomes. Efforts to strengthen emergency nursing should align competency development with appropriate staffing, clearly defined responsibilities, and coordinated patient flow. Future research should evaluate these approaches using robust designs and clearly differentiated clinical, patient experience, process, and workforce outcomes. Because this synthesis draws on six selected published reviews, its conclusions remain provisional pending completion of the proposed scoping review.

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