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The Complexity of Emergency Nurse Retention and Turnover Pre- and Post-Covid 19: A Scoping Review

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ABSTRACT

Aims: To examine factors influencing emergency nurse turnover and retention pre- and post-COVID-19 and inform planned Participatory Systems Mapping research.

Design: A scoping review of the literature reporting reasons emergency nurses leave, intend to leave or stay.

Methods: Following the Joanna Briggs Institute methodology and a pre-registered protocol, databases and grey literature were systematically searched in January 2025 (updated August 2025). Literature published after 1st January 2010, was included. Two reviewers independently screened records, and 10% of extractions were cross-checked. Data were grouped thematically on a visual coding system using the Miro platform. Pre- and post-COVID-19 sources were categorised and analysed using a two-dimensional framework of intensity and frequency.

Data Sources: MedLine, CINAHL, PsycINFO, Web of Science, Cochrane and grey literature.

Results: Ninety-three sources were included. Burnout, workload, staffing and workplace violence (WPV) were linked across study designs to turnover, while job satisfaction, supportive leadership and team cohesion appeared to support retention. Problem-focused and resilience-based coping were associated with retention across study designs ($n = 5$); emotion-focused strategies were linked with poorer outcomes ($n = 3$). In a subset of 86 sources, traditional protective factors (leadership support and team camaraderie) appeared weakened post-COVID-19. A novel theme of moral obligation to remain, despite personal risk, emerged. Adaptive coping gave way to downshifting and emotional suppression.

Conclusion: The included evidence indicates that multiple, interacting factors shape emergency nurse turnover and retention, whilst systemic strategies aligning operational demands with psychological safety and core nursing values may contribute to sustainable retention.

Implications for the Profession: Workforce interventions should address the psychological legacy of COVID-19 and focus on rebuilding trust, flexibility and moral sustainability in emergency departments.

Impact: While individual drivers of turnover are known, their complex interplay and retention factors are underexplored. This review identifies themes transcending boundaries and recurring across the turnover pathway, underscoring the need for multi-level interventions relevant to both nurse managers and policy makers.

Reporting Method: Reporting follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews guidelines (PRISMA-ScR).

Patient or Public Contribution: This study did not include patient or public involvement in its design, conduct or reporting.

What Does This Study Contribute to the Wider Global Community?

- Synthesises international evidence on emergency nurse turnover and retention, showing how these issues transcend national boundaries and health system models.
- **Highlights** how understanding shifting pressures and protective factors can guide stronger, more sustainable workforce strategies worldwide.
- Supports knowledge transfer between countries facing similar workforce shortages.

1 | Introduction

The nursing workforce has faced significant challenges in recent years, with a global shortage of nurses exacerbated by factors such as aging populations, increased healthcare demands and the COVID-19 pandemic. The World Health Organization (WHO) estimates a shortfall of 5.8 million nurses worldwide (World Health Organization 2025), posing a significant risk to the future provision of health services. Despite efforts to address shortages by increasing nurse training numbers (Bengtsson et al. 2023) and implementing retention strategies (Halter et al. 2017; ICN 2022), the global nursing crisis has deepened, particularly in high-stress environments like the emergency department (ICN 2022). Crucially, the nursing shortage is not simply due to the lack of trained nurses; periods of heightened scarcity have occurred simultaneously with increased throughputs of students in nursing schools (Whelan 2021).

Emergency departments are unique in that they require nurses to manage high volumes of critically ill and injured patients in time-sensitive and emotionally taxing conditions. They have historically been associated with particularly high turnover rates (Li, Cheng, and Zhu 2018; McDermid et al. 2020) and this trend appears to be worsening post-pandemic (Cornish et al. 2021). Both external and internal factors have been shown to influence nurses' decisions to remain in or leave their ED roles, including working conditions, emotional burnout, staffing levels, leadership support and broader systemic issues (McDermid et al. 2020; Cornish et al. 2021). Additionally, exposure to atypical events such as major incidents has been demonstrated to take a particular toll on the resilience of frontline staff, affecting mental health, job satisfaction and their decisions to stay in or exit the profession (McDermid et al. 2020; Wolf et al. 2020).

Staff turnover is a measure of the total number of employees leaving an organisation (Buchan 2010) and attrition is defined as the inability of an organisation to fill empty positions (Al-Suraihi et al. 2021). High turnover leads to a knowledge and skills gap, increased work burden for remaining staff, reduced access to training and development and ultimately a stagnating and demoralised workforce (Al-Suraihi et al. 2021; Hom et al. 2019). These factors make positions harder to fill and affect patient safety (Drennan et al. 2024; Ramsey et al. 2018). Furthermore, nursing staff shortages have been linked to poor performance in ED quality metrics such as time to triage and length of stay (Ramsey et al. 2018) which has increasingly led to litigation (Moulton and Mann 2021). In countries such as Australia, the United Kingdom and the United States, staff shortages have led to departmental down-grading and reductions in funding which further compounds attrition rates (Aiken et al. 2012; Vermeulen et al. 2016). While retention, an organisation's ability to keep its staff, has been well studied in other areas, it remains understudied in the ED context (Singh 2019; Gorman 2019) with a recent scoping review identifying only five published studies exploring ED staff retention (McIntyre et al. 2024).

The COVID-19 pandemic represents a particularly important inflection point for the ED nursing workforce. Compared with previous epidemics such as SARS or Ebola, COVID-19 was global in scale, prolonged in duration and repeatedly reshaped emergency care delivery, including triage processes, patient flow, boarding practices and infection-control procedures (Boyle and Henderson 2020). It is important to recognise that the impact of COVID-19 on emergency care varied internationally, shaped by differing policy responses and healthcare system capacities; nevertheless, an emerging body of international evidence indicates that nurses' intentions to leave have been high during the pandemic (Poon et al. 2022; Falatah 2021; Nashwan et al. 2021). However, comprehensive longitudinal evidence spanning pre-, during- and post-pandemic phases, especially specific to ED nurses, is sparse. These increases in turnover intentions identified during the pandemic have been attributed to a combination of fear of infection, inadequate personal protective equipment, moral distress, chronic workload pressures and evolving organisational responses (Tolksdorf et al. 2022; Ulupınar and Erden 2024; de Vries et al. 2024; Buckley et al. 2025), cumulating in substantial pressure on the ED nursing workforce.

Understanding how these pandemic-related pressures have altered the balance of factors influencing ED nurse retention and turnover is both timely and critical. Numerous studies have examined the factors influencing general nurse turnover and retention; however, there is a significant gap in our understanding of the specific challenges faced by ED nurses. Furthermore, much of the existing literature has focused on individual factors, with little attention paid to the complex interplay of these factors and how they may evolve over time. As emergency departments face escalating demands and workforce instability, clarifying the factors that shape ED nurse retention has become a critical priority, essential for designing ED-appropriate workforce strategies and system resilience.

2 | The Review

This scoping review maps the existing literature relating to the factors influencing turnover and retention of ED nurses. It focuses on the inter-relatedness of factors and explores whether a change in retention strategies in the post-Covid era may be indicated. It also underpins planned research exploring the systemic barriers and enablers of nurse retention through participatory systems mapping research, which promotes a collaborative, evidence-informed approach to future intervention development.

This review builds on and extends McIntyre et al.'s 2024 important 2024 scoping review of factors contributing to turnover and retention among ED nurses. Firstly, it identifies potential

relationships between contributing factors, revealing the complex interrelated drivers of nurse turnover and retention. It also includes a pre- and post-COVID-19 comparison, providing an exploration of the impact that the pandemic had on the factors determining turnover and retention. In addition, the inclusion of grey literature in this review provides a broader and more balanced synthesis of the available evidence. These additions enable a more comprehensive and integrated understanding of the dynamics influencing ED nurse turnover and retention, offering insights not captured in earlier syntheses.

2.1 | Aims

To examine factors influencing emergency nurse turnover and retention pre- and post-COVID-19 and inform planned Participatory Systems Mapping research.

2.2 | Review Questions

- RQ1 What are the factors that influence turnover and retention of nurses in emergency departments, and how do they relate to each other?
- RQ2 What interventions and strategies exist to improve retention and reduce turnover of ED nurses?
- RQ3 Do the factors affecting turnover, or the strategies used to improve retention, differ before and after the Covid-19 pandemic?
- RQ4 What basis is there in the literature to inform future participatory systems mapping research?

3 | Methodology

This scoping review follows the Joanna Briggs Institute (JBI) methodological framework for scoping reviews (Peters et al. 2020), including its recommended stages of identifying the research question, developing the search strategy, selecting evidence, extracting data and synthesising results. It was reported in accordance with the PRISMA-ScR checklist (Tricco et al. 2018). No novel methodological approaches were developed; rather, all procedures were adapted directly from these established frameworks. Analytical choices specific to this review, such as mapping interrelationships between factors and comparing pre- and post-COVID findings, were conducted within the JBI-recommended charting and synthesis stages. The review protocol (Data S4), with full methodological details, was pre-registered and is publicly available on the Open Science Framework (OSF) (Boulton et al., n.d.), however, key procedures have also been summarised here to ensure transparency and replicability and give sufficient methodological detail. No major deviations occurred from the published methods.

3.1 | Inclusion Criteria

In brief, sources published after 2010 were included if they reported on nurses of all seniorities working in emergency departments or local equivalents where unscheduled care was a key component of the environment and reported data specifically relating to factors influencing turnover or retention.

3.2 | Search Methods and Screening

An initial search of MEDLINE and CINAHL provided relevant keywords and index terms, which were developed into a search strategy with assistance from an expert librarian. MEDLINE, PsychInfo, CINAHL, Web of Science and Cochrane databases were searched. Grey literature was searched using Google Scholar, Web of Science and Scopus databases. The Social Sciences Research Network (SSRN) and ProQuest Dissertations & Theses Global were searched to identify pre-prints, discussion pieces, unpublished theses and conference papers. Relevant organisations, such as The Health Foundation, national nursing associations and NHS retention data, was also explored. Sources were screened by two independent reviewers using pre-defined inclusion and exclusion criteria.

3.3 | Covid-19 Subset

Pre-COVID was defined as sources where data collection was completed before the declaration of a global pandemic by the World Health Organization on March 11th 2020. Post-COVID included articles where data collection was started after the declaration of a global pandemic. Sources in which data collection took place both pre- and post-March 11th 2020 were assessed on an individual basis. Where a determination of whether data collection occurred pre- or post- was not possible, or where data was collected over both periods and could not be disaggregated, sources were excluded from the analysis.

3.4 | Data Extraction

Data were extracted by a single reviewer using a piloted tool. A random 10% sample ($n = 9$) was checked for accuracy by a second reviewer. Data extracted included author(s), year of publication, country, study design, setting, sample characteristics and key outcomes, specifically factors influencing turnover, factors supporting retention, reports of interventions and the COVID-19 context. Descriptions of pre- and post-COVID settings and the specific impact of the pandemic on reported factors influencing turnover and retention were extracted. Quantitative findings were summarised descriptively alongside effect sizes or severity scores, whilst qualitative findings and those from grey literature were extracted verbatim.

3.5 | Data Analysis and Presentation

To visualise the data, the Miro platform (https://miro.com) was used. The extracted data were transferred to virtual Post-it notes on Miro. The groupings of these factors evolved as more data were added. As groups grew and became more clearly defined, they were colour-coded in order to visualise groups and relationships. To identify emerging relationships between factors across different groupings, an iterative process of reading

and re-reading sources was undertaken. Themed groups were then located strategically to show relationships and, where identified in the sources, causal relationships, were drawn between them (Data S5). The Miro-based analysis was done by a single researcher. To ensure trustworthiness, data was transferred verbatim from the checked data extraction tool onto the Miro board; connections were made between the factors through an iterative process of reading and re-reading source material, and the reviewer kept a reflexive diary as a personal record to help scrutinise biases and enable critical thinking around decisions.

The influence of COVID-19 was assessed using a two-dimensional framework based on the frequency of citation and the level of emphasis. Frequency was determined by the proportion of sources that referenced a given stressor, with thresholds informed by qualitative coding principles (Miles et al. 2014). Drawing on Creswell and Plano Clark's mixed methods approach (Creswell and Plano Clark 2017), intensity, reflecting the emphasis placed on the factor, was derived from both the language used in qualitative accounts and the effect sizes or severity scores in quantitative data. Direction of quantitative effects was noted separately, with negative effects treated as protective in relation to turnover or stressors in relation to retention, and intensity referring only to strength. The division of categories for intensity and frequency in the dual framework analysis is presented in Data S1, with the full list of themes analysed in the two-dimensional framework available in Data S6.

Quantitative data such as turnover and retention rates are reported descriptively. Narrative summaries describe recurring factors, highlight thematic interconnections and contextualise findings.

4 | Results

Databases were searched on 10th January 2025 and yielded 1230 results. A search of grey literature was undertaken between 12th and 13th January 2025, which yielded 62 potential sources. Two hundred and seventy-eight duplicates were removed electronically, leaving 1014 sources for screening. After title and abstract screening, 219 sources proceeded to full-text screening. Inter-reviewer reliability was assessed using Cohen's Kappa and showed substantial agreement at both abstract (0.859) and full text screening stages (0.798). After screening, 89 sources were eligible for inclusion in the review. The search was updated on 3rd August 2025, which resulted in the identification of 4 further eligible sources, giving a total of 93 sources. The search history is presented using the PRISMA-ScR flow diagram (Tricco et al. 2018) (Data S2).

4.1 | Study Characteristics

A total of 93 sources were included in this scoping review. The majority were journal articles ($n = 82$), followed by doctoral theses ($n = 9$) and book chapters ($n = 2$). Study designs varied considerably, but most commonly, studies employed cross-sectional study designs ($n = 51$).

In terms of study settings, ED sizes varied significantly, ranging from departments with fewer than 10,000 annual patient visits to large tertiary centres with over 100,000 visits. The full list of study characteristics is in the summary data table in Data S3.

The variation in methodological approaches reflected the breadth of the emergency nursing literature, which provided additional context but exhibited variation in reporting detail. Sample sizes and levels of methodological description differed considerably across studies. Overall, the evidence base was heterogeneous and largely descriptive, consistent with the exploratory nature of scoping review evidence.

4.2 | Synthesis of Findings

Findings are presented in five themes: factors associated with turnover; factors supporting retention; interventions aimed at retention; burnout and well-being; and coping strategies.

4.2.1 | Factors Associated With Turnover

4.2.1.1 | Burnout. Burnout was one of the most frequently cited predictors of turnover intention ($n = 15$ papers). Of the eleven quantitative studies assessing burnout, nine found statistically significant associations between high burnout scores and increased intent to leave (Guerrero et al. 2024; Hines-Stellisch et al. 2024; Jiang et al. 2017; Ma et al. 2022; Norful et al. 2024; Sawatzky and Enns 2012; Sungbun et al. 2023; McCormick et al. 2023; Zhu et al. 2022). The remaining two studies reported burnout as a mediator between workplace violence (WPV) and turnover (Li, Chao, and Shih 2018) and as a negative correlate between job satisfaction and turnover (Smith 2025).

Burnout was found to be associated with excessive workload and time pressure (Guerrero et al. 2024; Macks 2010; Sung and Choi 2012; Winters 2016; Skene 2021); understaffing and high patient acuity (McIntyre et al. 2024; Macks 2010; Hamdan and Hamra 2015); exposure to trauma and critical incidents (McDermid et al. 2020; Morphet et al. 2011; Lee and Kim 2020; Staempfli and Lamarche 2020); inadequate leadership support (Lee and Lee 2022; Li et al. 2021; Daniels et al. 2024; Johnston et al. 2020); and WPV and aggression (McDermid et al. 2020; Li, Chao, and Shih 2018; Hamdan and Hamra 2015; Chipps et al. 2024; Kelly-Houston 2019; Stafford et al. 2022). Inflexible shift patterns, night shifts, frequent overtime and a lack of autonomy in clinical practice (Smith 2025; Macks 2010; Skene 2021; Stafford et al. 2022; LaRock-McMahon 2018) were also reported across study designs to contribute to burnout.

Key factors that were reported to buffer against burnout include managerial support and recognition (McIntyre et al. 2024; Adams et al. 2019; Cunningham et al. 2013), access to psychological support (Gorman 2019; Hines-Stellisch et al. 2024; Ma et al. 2022; Daniels et al. 2024; Adams et al. 2019), team cohesion and collegial trust (Gorman 2019; Corcoran 2021; Power et al. 2022), access to rest areas and protected time (Macks 2010; Daniels et al. 2024), engaged leadership and open

communication (Kelly-Houston 2019; Adams et al. 2019; S. J. Baker 2010) and social support (Jiang et al. 2017; McCormick et al. 2023; Zhu et al. 2022). A single quantitative study reported that vocational identity or a strong sense of calling and purpose in ED work reduced the effects of burnout on turnover intention (Lee and Kim 2020).

4.2.1.2 | Mental Health. Two systematic reviews identified depression (McDermid et al. 2020), and chronic fatigue (Stafford et al. 2022) as significantly associated with nurses' leaving and post-traumatic stress was reported in two systematic reviews (Stafford et al. 2022; Amberson and Quarry 2025) and a scoping review (Staempfli and Lamarche 2020) as an indicator of turnover intention.

4.2.1.3 | Moral Distress. Moral distress was linked to turnover across quantitative (Lee and Lee 2022; Fernandez-Parsons et al. 2013; Jain et al. 2024; Zavotsky and Chan 2016; Hou et al. 2021; Trautmann et al. 2015) and qualitative (Rozo et al. 2017; Simic et al. 2024) sources, editorials (Skene 2021; Wolf 2019) and reviews (McDermid et al. 2020; Gorman 2019; Staempfli and Lamarche 2020; Boulton and Farquharson 2024). However, the stigma associated with ED nurses who 'couldn't cope' was also associated with a reluctance to seek support for moral distress (Gorman 2019; Staempfli and Lamarche 2020; Simic et al. 2024; Wolf 2019).

4.2.1.4 | Workplace Violence. Exposure to WPV was repeatedly identified in both quantitative (Li, Chao, and Shih 2018; Hamdan and Hamra 2015; Kelly-Houston 2019; Stafford et al. 2022; Wolf et al. 2021; Alameddine et al. 2011) and qualitative sources (Kelly-Houston 2019; LaRock-McMahon 2018; Power et al. 2022; Hassankhani et al. 2018) as a significant factor in turnover. Incidents of verbal and physical aggression were frequently linked to increased emotional distress and withdrawal (Li, Chao, and Shih 2018; Hamdan and Hamra 2015; Kelly-Houston 2019; Wolf et al. 2021; Alameddine et al. 2011; Zullo et al. 2022). Counterintuitively, one quantitative study reported that nurses with high burnout levels expressed weaker intention to resign after violent incidents (Li, Chao, and Shih 2018). A systematic review from Australia (McDermid et al. 2020) described the normalisation of WPV and its negative impact on professional self-image, which was characterised by one study using a grounded theory approach as akin to working in the trenches (Winters 2016). The prevalence of unaddressed verbal abuse directed towards nurses was reported in a small qualitative descriptive study from Canada as resulting in 'Occupational Disappointment', characterised by a disheartenment with career choices (Zullo et al. 2022). Only two sources, one quantitative validation of a grounded theory study (Wolf et al. 2021) and one editorial piece (Wolf 2019) directly identified bullying as being associated with turnover intent, indicating that the frequency of bullying episodes increased turnover intent significantly.

4.2.1.5 | Work Environment. The work environment, including overcrowding, poor staffing ratios and lack of resources, was found to be significantly associated with turnover in seven studies reporting quantitative analysis (McIntyre et al. 2024; Guerrero et al. 2024; Hamdan and Hamra 2015; Lee and Lee 2022; Kelly-Houston 2019; Bruyneel et al. 2017). Four of them also reported job dissatisfaction from having to care for admitted patients in corridors (McIntyre et al. 2024; Guerrero et al. 2024; Hamdan and Hamra 2015; Lee and Lee 2022).

Quantitative ($n = 10$), qualitative ($n = 6$) and mixed-methods ($n = 3$) studies highlighted inflexible scheduling (Smith 2025; Johnston et al. 2020; Stafford et al. 2022; LaRock-McMahon 2018), shift work (Skene 2021; LaRock-McMahon 2018) and mismatches between perceptions of job demands and control (Guerrero et al. 2024; Zhu et al. 2022; Macks 2010; Sung and Choi 2012; Power et al. 2022; Simic et al. 2024; Adriaenssens et al. 2011; de Wijn et al. 2022) as chronic organisational stressors. Night shift frequency (Kelly-Houston 2019), poor communication from leaders (Lee and Lee 2022; Li et al. 2021; Kelly-Houston 2019) and perceived absence of managerial support (Norful et al. 2024; Smith 2025; Lee and Lee 2022; Adriaenssens et al. 2015; Spivak et al. 2011) were also cited as contributing to a deteriorating sense of job satisfaction and as drivers of turnover.

4.2.1.6 | COVID-19. COVID-19 was reported to have directly affected turnover intention in six sources including quantitative cross-sectional studies (Cornish et al. 2021; Sungbun et al. 2023; Pienaar et al. 2025), grounded theory (Simic et al. 2024), systematic review (Ren et al. 2024) and scoping review (Lin et al. 2023). In a further four sources using both quantitative (Chipps et al. 2024; Lee 2024) and qualitative methods (Power et al. 2022; Muir et al. 2021), it was reported as a magnifier of pre-existing stressors. One quantitative study identified that caring for COVID-19 positive patients was not significantly associated with intention to leave; however, working in an ED which received COVID-19 patients was (Cornish et al. 2021). In three studies using qualitative methods, including ethnography (Muir et al. 2021), grounded theory (Winters 2016) and phenomenology (Simic et al. 2024) nurses reported escalating emotional exhaustion, fear and isolation, often paired with a perceived absence of meaningful support from institutions. While some nurses reported maintaining commitment out of team loyalty (Simic et al. 2024), or a moral obligation to stay (Skene 2021; Simic et al. 2024).

Certain environmental factors related to the type of ED, such as paediatric settings or low volume EDs (Wolf et al. 2021) were found to decrease turnover intent. However, no studies within this review provided an analysis of how environmental factors intersect.

4.2.1.7 | Individual-Level Factors. Fourteen sources explored individual-level factors in relation to turnover intention. Nurses in lower-level roles, for example staff nurses versus advanced nurse practitioners, reported higher turnover intentions (Wolf et al. 2021; Jiang et al. 2023; Wubetie et al. 2020). Three quantitative studies (Cornish et al. 2021; Norful et al. 2024; Smith 2025) and a meta-analysis of ED nurse turnover intention globally (Ren et al. 2024) found younger age to be correlated with higher intention to leave. However, one quantitative cross-sectional survey (Wolf et al. 2021) measuring intention to stay identified the mid-range age group (31–35 years) with the lowest intent.

4.2.2 | Factors Supporting Retention

4.2.2.1 | Job Satisfaction. Across the literature, job satisfaction was repeatedly linked with increased retention (Jiang et al. 2017, Jiang et al. 2023; Ma et al. 2022; Smith 2025; Winters 2016; Skene 2021; Lee and Kim 2020; Johnston et al. 2020; LaRock-McMahon 2018; S. J. Baker 2010; Adriaenssens et al. 2015; Li et al. 2020; van Osch et al. 2018; Muir et al. 2023). Quantitative studies showed that job satisfaction had a significant negative effect on turnover intention and served as a mediator between WPV and turnover intention (Jiang et al. 2017; Ma et al. 2022; Lee and Kim 2020; Li et al. 2021, Li et al. 2020). Satisfaction was linked to work-life balance with both quantitative (Norful et al. 2024; Sawatzky and Enns 2012; Adriaenssens et al. 2015) and qualitative (Daniels et al. 2024; van Osch et al. 2018) studies, and an editorial source (Macks 2010) indicated that flexible rostering, self-scheduling and accommodations for family caregiving responsibilities aided retention. Satisfaction was also gained from task completion (Winters 2016; Skene 2021; S. J. Baker 2010; Wolf 2019), clinical challenge (Macks 2010; Skene 2021; Daniels et al. 2024; Adriaenssens et al. 2011; Dawood 2019) and having a positive impact on patient outcomes (S. J. Baker 2010; Lee 2024; Muir et al. 2023). The self-worth and pride derived from nursing also contributed to satisfaction (Jiang et al. 2017; Ma et al. 2022; LaRock-McMahon 2018; Adriaenssens et al. 2015; Li et al. 2020), with both quantitative (Lee and Kim 2020; Muir et al. 2023) and qualitative (Winters 2016; Corcoran 2021; Simic et al. 2024; van Osch et al. 2018) sources identifying that a strong sense of vocation was associated with retention. Only one study (Lee and Kim 2020) used a validated tool to measure vocation, and their regression analysis showed that strong vocation among nurses working in EDs in regional trauma centres was significantly associated with reduced intentions to leave. No similar analysis was performed for nurses in other types of EDs.

4.2.2.2 | Professional Development. Structured programmes such as Transition to Specialty Practice Programs (TSPPs) (McIntyre et al. 2024; Morphet et al. 2011, 2015; Lee 2024; Amarrador et al. 2025; Friedman et al. 2013) and Emergency Nurse Practitioner pathways (Dawood 2019; Moyle 2018; Stock 2025) were identified across sources, including editorial ($n=1$), literature review ($n=1$), scoping review ($n=2$), cross-sectional study ($n=1$) and evaluation of interventions ($n=3$) as encouraging a sense of future investment in the ED. Across sources, nurses who reported they felt they were growing professionally were more likely to stay (McIntyre et al. 2024; Macks 2010; Skene 2021; Daniels et al. 2024; Lee 2024; Dawood 2019; Friedman et al. 2013; Zaleski 2015).

4.2.2.3 | Workplace Culture and Relationships. Quantitative ($n=6$) and qualitative sources ($n=7$), reviews ($n=4$) and editorials/reports ($n=2$) cited the strength of professional relationships as a factor in decisions to stay. Seven sources associated team camaraderie as indirectly affecting retention via resilience (Gorman 2019; Skene 2021), as a mediator to moral distress (Fernandez-Parsons et al. 2013), through improved communication structures and team development (Adams et al. 2019; Cunningham et al. 2013; S. J. Baker 2010), and through team debriefing and structured support initiatives (Daniels et al. 2024; Healy and Tyrrell 2013). In qualitative studies, nurses reported staying in their roles due to supportive colleagues, mutual trust and camaraderie (Gorman 2019; Corcoran 2021; Power et al. 2022; Simic et al. 2024). Statements like, 'I know too many people down there, I know what position they're in [...] I just can't do it [leave]' (Simic et al. 2024) from a descriptive phenomenological study illustrate the moral and emotional loyalty nurses report feeling to their teams.

Workplaces recognised as centres of excellence, for example Magnet designation (Daniels et al. 2024; Johnston et al. 2020) or those where a strong organisational commitment was measured using a validated tool (Lee and Lee 2022; Jiang et al. 2023; Li et al. 2020), were associated with higher staff retention and satisfaction. Similarly, a positive workplace culture with supportive leadership was reported as a powerful retention mechanism in studies using quantitative (Alameddine et al. 2011; D. Baker 2016; Ji and Myung 2023) qualitative (Daniels et al. 2024; Corcoran 2021; Healy and Tyrrell 2013), mixed methods (Kelly-Houston 2019; Adams et al. 2019), reviews (Johnston et al. 2020; Lin et al. 2023; Horvath and Carter 2022) and acknowledged in the literature in editorial sources (Skene 2021; S. J. Baker 2010; Maloney 2012). Leadership practices such as daily rounding, shared decision-making and team debriefings were linked statistically (Adams et al. 2019; D. Baker 2016) and reported qualitatively (Skene 2021; Daniels et al. 2024; Adams et al. 2019; S. J. Baker 2010; Healy and Tyrrell 2013; Maloney 2012) to increased feelings of loyalty and satisfaction. However, only one quantitative source found a positive correlation between transformational leadership styles, engagement and reduced attrition (D. Baker 2016) and in a recent scoping review leadership strategies were not identified as a predictor of retention (Horvath and Carter 2022).

4.2.3 | Interventions Aimed at Retention

4.2.3.1 | Mindfulness. Interventions were assessed in the quantitative ($n=3$) and mixed-method sources ($n=2$) and identified in qualitative literature ($n=4$), scoping review ($n=1$) and editorial pieces ($n=4$). Three studies evaluated interventions using aspects of mindfulness-based stress reduction (MBSR) techniques (Hines-Stellisch et al. 2024; Adams et al. 2019; Cunningham et al. 2013). Two provided results from analysis of intervention efficacy on burnout scores and turnover intention, with one noting a significant reduction in burnout scores (Adams et al. 2019) but not turnover intention and the other (Hines-Stellisch et al. 2024) demonstrating a significant reduction in turnover intention but not burnout scores. The final study did not provide an analysis of its efficacy (Cunningham et al. 2013). Nevertheless, all three identified that MBSR programmes were well received by staff.

4.2.3.2 | Peer-Intervention. Peer-based interventions, such as mentoring programmes and embedded psychological support (McIntyre et al. 2024; Daniels et al. 2024; Kelly-Houston 2019; Maloney 2012; Codier and Codier 2015; O'Hare et al. 2025) were linked to retention and discussed in qualitative (Daniels et al. 2024) and editorial (Codier and Codier 2015) sources as potentially being cost-effective

and suitable for broader application to promote resilience and retention. Only two studies reported qualitative data in relation to mentoring (Daniels et al. 2024; O'Hare et al. 2025) identified increased retention, and no source provided a statistical analysis of this relationship.

4.2.3.3 | Debriefing. The emotional protection provided by debriefing after critical incidents was mentioned exclusively in qualitative sources (Rozo et al. 2017; Simic et al. 2024; Healy and Tyrrell 2013) and editorials (Skene 2021; Maloney 2012). 'Hot' debriefs in the immediate aftermath of an incident and 'cold' debriefs, which allowed for structured reflection, were linked to lower perceived stress and greater workplace cohesion (Skene 2021; Healy and Tyrrell 2013; Maloney 2012).

4.2.3.4 | Adaptation to Work Environment. Two sources described systemic ED changes aimed at easing the workload burden, including tele-triage, vertical care spaces and staff reallocation (Macks 2010; Hodgson et al. 2024). While not directly evaluated for statistical impact, such changes were reported to be perceived by nurses as beneficial to morale. One qualitative study identified dedicated quiet spaces and rest areas as mitigating physical and cognitive fatigue, whilst improving perceptions of organisational support (Daniels et al. 2024).

4.2.3.5 | Transition Programmes. Evidence, including intervention evaluations (Lee 2024; Stock 2025; Bolima 2015; Hignight et al. 2024) quantitative studies (Friedman et al. 2013) qualitative studies (Dawood 2019), mixed methods (Morphet et al. 2015), reviews (Morphet et al. 2011; Amarrador et al. 2025) and a quality improvement initiative (Zaleski 2015) supported structured transition to speciality practice programmes. These corresponded with an increase in retention (Friedman et al. 2013; Stock 2025), a significant drop in turnover (Hignight et al. 2024) and higher reported job satisfaction and retention (Lee 2024; Dawood 2019; Stock 2025).

4.2.3.6 | Culture Change. Interventions aimed at organisational culture change, such as shared decision-making and increased leadership involvement, were identified primarily in quantitative sources ($n = 3$). Two studies reported increased job satisfaction scores (Kelly-Houston 2019; D. Baker 2016) but lacked rigorous pre-/post-testing. Another study found a significant reduction in burnout scores post-intervention, which included a cultural change toolkit incorporating meaningful recognition, shared decision-making and increased leadership involvement (Adams et al. 2019). However, studies that measured turnover scores (Adams et al. 2019; D. Baker 2016) found no significant reduction following cultural change interventions.

4.2.4 | Coping Strategies

Twenty sources identified coping strategies used by ED nurses to manage the demands of their high-pressure clinical environment. Some strategies were reported to play a central role in mitigating burnout and turnover (Gorman 2019; Guerrero et al. 2024; Smith 2025; Lin et al. 2023), while in other cases, they were seen as masking deeper workplace dysfunction (Staempfli and Lamarche 2020; Zavotsky and Chan 2016; Muir et al. 2023; Friedman et al. 2013; Rasero and Ramacciati 2018).

The identified studies commonly categorised coping into two broad types: Emotion-focused coping, characterised by efforts to manage emotional responses to stress, for example avoidance, minimisation or emotional suppression (Skene 2021; Staempfli and Lamarche 2020; Daniels et al. 2024; Corcoran 2021; Power et al. 2022; Zavotsky and Chan 2016; Muir et al. 2023; Codier and Codier 2015; Rasero and Ramacciati 2018; Jeong and Kim 2018); and problem-focused coping, characterised by efforts to directly address the source of stress, for example, planning, seeking solutions or changing work practices (Gorman 2019; Guerrero et al. 2024; McCormick et al. 2023; Smith 2025; Li et al. 2021; Lin et al. 2023; Muir et al. 2023; Healy and Tyrrell 2013; Maloney 2012).

Emotion-focused coping was reported in three quantitative analyses to be associated with higher burnout and turnover intentions (Zavotsky and Chan 2016; Rasero and Ramacciati 2018; Jeong and Kim 2018). These studies and one editorial source (Codier and Codier 2015) identified nurses 'minimising' and downplaying the impact of stressors or ignoring them altogether. However, two studies reported that minimisation was associated with reduced job satisfaction and increased turnover intention over time (Zavotsky and Chan 2016; Rasero and Ramacciati 2018).

Emotional avoidance was highlighted in one qualitative survey design (Daniels et al. 2024) and one editorial (Maloney 2012) as an adjustment to ED cultures where discussing distress was perceived as weakness and vulnerability was stigmatised. Such cultural norms were found to impede help-seeking and perpetuate burnout (Daniels et al. 2024).

A problem-focused coping behaviour involved 'downshifting', the voluntary reduction in hours to preserve mental health, as described by one quantitative longitudinal survey (Smith 2025). Respondents in this study identified downshifting as a retention compromise as nurses stayed in the profession but not in full-time ED roles.

Resilience was predominantly measured in the quantitative sources ($n = 5$) and identified in literature and scoping reviews ($n = 2$) and editorial ($n = 1$). Some nurses demonstrated resilience traits and employed adaptive cognitive coping strategies, such as reframing challenges (Guerrero et al. 2024; Lin et al. 2023), drawing on experience (Gorman 2019; Skene 2021) and finding meaning in their work (Gorman 2019; Skene 2021; Muir et al. 2023). Studies reported that higher resilience was associated with lower emotional exhaustion and greater intention to stay, although not all sources agreed that resilience was a direct mediator.

An interpersonal coping mechanism, identified in three qualitative cross-sectional studies (Daniels et al. 2024; Corcoran 2021; Power et al. 2022), three quantitative studies (Cornish et al. 2021; Bruyneel et al. 2017; Adriaenssens et al. 2011) and in an editorial (Codier and Codier 2015), was seeking peer-based support. Nurses emphasised the importance of talking with colleagues who understand the realities of the role (Power et al. 2022; Bruyneel et al. 2017; Adriaenssens et al. 2011).

4.3 | Pre- and Post- Covid-19 Results

Among the 93 sources in the scoping review, 58 were categorised as pre-COVID, 28 as post-COVID and 7 could not be confidently classified. Therefore, 86 sources were eligible to be included in the COVID-19 subset comparison.

The most common methodology in pre-COVID sources was quantitative cross-sectional survey designs ($n=28$) followed by qualitative studies using a variety of methodologies ($n=9$). Geographical representation was broad with 16 countries represented, with the United States ($n=24$) being most common, followed by China ($n=6$) and South Korea ($n=6$). ED characteristics varied significantly, including both urban and rural settings, regional trauma centres and community hospitals.

Post-COVID sources were similar in terms of methodologies, with quantitative cross-sectional survey designs used most frequently ($n=10$), followed by qualitative methods ($n=6$). Geographical location was again dominated by American studies ($n=12$), followed by Australia ($n=5$) and China ($n=3$). Almost half of the EDs were described as urban ($n=12$), with only 1 source specifying a rural location.

4.4 | COVID-Era Comparison of Turnover and Retention Themes

Several notable shifts in thematic emphasis were observed in relation to turnover, retention and coping strategies.

4.4.1 | Turnover

The frequency of key turnover factors post-COVID remained similar to pre-COVID reporting (Table 1). However, intensity levels increased in all key factors with the exception of WPV, which reduced from strong to moderate as the language used to describe it became less assertive (Li, Chao, and Shih 2018; Hamdan and Hamra 2015; Alameddine et al. 2011; Hassankhani et al. 2018; Jiang et al. 2023; Li et al. 2020; Rasero and Ramacciati 2018; Jeong and Kim 2018; Li et al. 2019) and more accepting (McIntyre et al. 2024; Guerrero et al. 2024; Zhu et al. 2022; Chipps et al. 2024; Muir et al. 2024); with expressions of 'helplessness' and 'powerlessness' when confronted with violence in the ED (Li et al. 2021; Zullo et al. 2022). One pre-COVID study using quantitative methods explored the complex relationship between WPV and intent to leave, identifying that nurses with high burnout scores were less likely to resign following violent incidents (Li, Chao, and Shih 2018). No other study included in this review explored this relationship.

Burnout, while prevalent in both groups, was described in more acute and immediate terms post-COVID. Many nurses reported near immediate threats to their emotional and professional viability, (Sawatzky and Enns 2012; McCormick et al. 2023; Zavotsky and Chan 2016) with burnout described as 'crisis-level' (Skene 2021; Zullo et al. 2022) rather than the slow burn or chronic descriptions pre-pandemic (Jiang et al. 2017; Norful et al. 2024; Lee and Kim 2020; LaRock-McMahon 2018; Rozo et al. 2017; Wubetie et al. 2020; Dawood 2019). Eight post-COVID data sources reported sharp increases in emotional exhaustion, depersonalisation and moral distress among ED nurses during the pandemic (Cornish et al. 2021; Guerrero et al. 2024; Sungbun et al. 2023; McCormick et al. 2023; Zhu et al. 2022; Simic et al. 2024; Ren et al. 2024; Lin et al. 2023). Prolonged exposure to critical patients and staff shortages contributed to turnover pre-COVID (Lee and Lee 2022; Fernandez-Parsons et al. 2013; Hou et al. 2021; Healy and Tyrrell 2013; Maloney 2012; Jeong and Lee 2013; Sukhee and Lee 2015) but in addition, continually evolving protocols and a sense of unrelenting demand and diminishing control experienced during the pandemic were reported to increase the intensity of psychological trauma and moral distress (Guerrero et al. 2024; Sawatzky and Enns 2012; McCormick et al. 2023; Simic et al. 2024; Boulton and Farquharson 2024).

Leadership support was reported across sources including qualitative ($n=3$) and quantitative ($n=6$) methodologies, mixed-method ($n=2$), intervention study ($n=1$), editorial ($n=1$) and scoping review ($n=1$) and viewed differently pre-COVID (Kelly-Houston 2019; Adams et al. 2019; Cunningham et al. 2013; S. J. Baker 2010, 2016; Hou et al. 2021; Adriaenssens et al. 2011) and post-COVID (Sungbun et al. 2023; McCormick et al. 2023; Daniels et al. 2024; Wolf et al. 2021; Lin et al. 2023; Muir et al. 2021; Lassiter 2022), where failures in communication and

TABLE 1 | Key Turnover factors identified through the dual framework (intensity × frequency) analysis.

Theme	Pre-COVID ($n=58$)	Post-COVID ($n=28$)
Workload/overcrowding/staffing	Frequently cited, moderate emphasis	Frequently cited, strong emphasis
Psychological trauma	Occasionally cited, moderate emphasis	Frequently cited, strong emphasis
Burnout (EE, DP)	Commonly cited, moderate emphasis	Commonly cited, strong emphasis, more severe and immediate descriptions
Moral distress	Emerging theme: occasionally cited, moderate emphasis.	Commonly cited, strong emphasis (conflict, guilt)
Poor leadership support	Occasionally cited, Moderate emphasis	Occasionally cited, strong emphasis, focus on communication failures
Workplace violence	Commonly cited, strong emphasis, esp. verbal threats	Commonly cited, moderate emphasis, described with resignation/acceptance

Note: Darkest blue = frequently cited + strong emphasis; lightest = rarely cited/emerging/minimal emphasis. Sorted by post-COVID strength.

support were cited as key contributors to their intent to leave. In contrast, a scoping review completed in 2022 found that no specific leadership strategy significantly influenced nurse's decisions to leave or stay (Horvath and Carter 2022).

Systemic issues such as inadequate resource allocation, inconsistent communication from leadership and the normalisation of unsafe working conditions were identified by the pre-COVID sources (Macks 2010; Adriaenssens et al. 2015; D. Baker 2016; Bragard et al. 2015) However, reporting of systemic issues appears intensified post-COVID across twelve sources, including quantitative (Sungbun et al. 2023; McCormick et al. 2023; Muir et al. 2023; Ji and Myung 2023), qualitative (Daniels et al. 2024; Zullo et al. 2022; Hodgson et al. 2024; Muir et al. 2024), grounded theory (Lassiter 2022), scoping review (Lin et al. 2023), systematic review (Ren et al. 2024) and editorial (Skene 2021) papers. Sources report these systemic failings led to disillusionment with institutional structures and a loss of trust in organisational support, which in turn reduced retention intent even among previously committed nurses (Daniels et al. 2024; Johnston et al. 2020; Boulton and Farquharson 2024; Pienaar et al. 2025).

4.4.2 | Retention

Evaluation of personal and professional priorities appears to have changed post-COVID—see the key factors reported as aiding retention (Table 2). This re-evaluation was emphasised in four qualitative sources: the experience of working through a pandemic led some nurses to reconsider their career paths (Simic et al. 2024), place increased emphasis on work-life balance, mental health and reconsider the long-term viability of remaining in emergency care (Skene 2021; Simic et al. 2024; Lin et al. 2023; Muir et al. 2023).

A new theme of moral obligation appeared exclusively in the post-COVID qualitative literature in seven sources, where nurses felt compelled to stay despite deteriorating personal well-being to avoid letting down their team (Skene 2021; Daniels et al. 2024; Simic et al. 2024). Describing an intense moral conflict between their desire to protect their own health and their families', and their unwillingness to leave colleagues understaffed (Skene 2021; Power et al. 2022; Simic et al. 2024; Zullo et al. 2022; Ren et al. 2024). These narratives frequently referred to a reluctance to abandon the team, even as personal stress and exhaustion mounted. Participants in one phenomenological study clarified this feeling as a moral obligation not to walk away during a crisis (Simic et al. 2024).

Career development, which had been a strong retention factor pre-COVID (Macks 2010; Bruyneel et al. 2017; de Wijn et al. 2022; Spivak et al. 2011; Moyle 2018; Fitzpatrick et al. 2014), received less focus in the post-pandemic period. Post-COVID saw traditional retention drivers such as development programmes (Dawood 2019; Morphet et al. 2015; Friedman et al. 2013; Stock 2025; Zaleski 2015; O'Hare et al. 2025; Bolima 2015; Hignight et al. 2024; Kutzin and Collins 2025) give way to basic survival needs supported by flexible working options, emotional safety provided by effective leadership and moral obligation as both individuals and institutions prioritised crisis response over professional advancement (McIntyre et al. 2024; Daniels et al. 2024; Zullo et al. 2022; Horvath and Carter 2022; Lassiter 2022).

Despite the adversity, strongly protective factors such as team camaraderie and peer support (Gorman 2019; Winters 2016; Staempfli and Lamarche 2020; Corcoran 2021; Bruyneel et al. 2017; van Osch et al. 2018) were reported to have remained (Simic et al. 2024). However, in a post-pandemic systematic review (Ren et al. 2024) and two scoping reviews (McIntyre et al. 2024; Lin et al. 2023), their protective value was seen to have diminished under pandemic strain. Nurses who might otherwise have found fulfilment in their roles described themselves as too depleted to continue, and the focus of retention motivators shifted towards survival over engagement (Sungbun et al. 2023; Simic et al. 2024; Lin et al. 2023).

TABLE 2 | Key Retention factors identified through the dual framework (intensity × frequency) analysis.

Theme	Pre-COVID ($n = 58$)	Post-COVID ($n = 28$)
Team camaraderie	Frequently cited, strong emphasis	Commonly cited, strong emphasis, discussed alongside guilt, the protective value seems diminished under pressure
Flexible work arrangements	Occasionally cited, moderate emphasis	Commonly cited, strong emphasis as nurses reevaluate priorities
Autonomy and meaning in work	Commonly cited motivator, moderate emphasis	Commonly cited but in the negative, that is lacking and often overshadowed by exhaustion. Strong emphasis.
Leadership presence	Occasionally cited, moderate emphasis	Occasionally cited, strong emphasis, often reported lacking
Moral obligation to stay	Not present	Unique to post-COVID studies, occasionally cited, strong emphasis
Career development/learning	Commonly cited, Strong emphasis	Occasionally cited, minimal emphasis amid crisis response

Note: Darkest blue = frequently cited + strong emphasis; lightest = rarely cited/emerging/minimal emphasis. Sorted by post-COVID strength.

4.4.3 | Coping Strategies

The post-COVID coping strategies presented in Table 3 show an apparent move away from group support towards a reliance on individual actions to safeguard well-being.

Coping strategies shift from pre-COVID emotional suppression and peer support (Sung and Choi 2012; Trautmann et al. 2015; Codier and Codier 2015; Fei et al. 2023) to downshifting and withdrawal behaviours seen in a longitudinal quantitative study (Smith 2025), three quantitative cross-sectional studies (Sungbun et al. 2023; Jain et al. 2024; Ji and Myung 2023) and a systematic review of global prevalence rates of ED nurse turnover intention (Ren et al. 2024) post-COVID, perhaps hinting at a reduced capacity of teams to emotionally support each other post-COVID as suggested in a post-pandemic scoping review (Lin et al. 2023).

5 | Discussion

This scoping review highlights the multifactorial nature of turnover and retention in the ED nursing workforce, with findings shaped by diverse study designs and varied strength of evidence. While some associations are well established, others emerge more tentatively, suggesting the need for ongoing research and targeted intervention.

WPV was consistently identified across multiple studies as a significant contributor to burnout, emotional withdrawal and intent to leave. Its apparent normalisation within ED culture (McDermid et al. 2020) reinforces findings that WPV is not merely a sporadic hazard but a chronic condition shaping workforce dynamics. Though paradoxically, one quantitative study from Taiwan reported that nurses experiencing higher burnout were less likely to express turnover intentions following WPV (Li et al. 2020), potentially reflecting internalised professional expectations or cultural attitudes. It may also represent a further indication of the normalisation of WPV and the negative impact on the professional self-image, which is characterised as 'working in the trenches' (Winters 2016; Simic et al. 2024). Although interventions aimed at cultural change did not show a subsequent reduction in turnover (Adams et al. 2019; D. Baker 2016), increased job satisfaction was reported (Kelly-Houston 2019; D. Baker 2016). Job satisfaction and professional self-image have been identified in the wider literature as key factors in combating toxic workplace culture and bullying (Vessey et al. 2010; Edmondson 1999; Einarsen et al. 2011). Nevertheless, the limited number of strategies or interventions aimed at addressing WPV, bullying or toxic workplace cultures is concerning.

Workload and overcrowding were identified as stressors across the literature, implicated in emotional exhaustion, reduced quality of care and the decision to downshift or exit emergency nursing altogether. These findings align with other research in high-acuity clinical environments (Musio et al. 2025; Ramírez-Elvira et al. 2021), and while some interventions to address the work environment were reported at the service level, their impact appeared limited (Macks 2010; Simic et al. 2024; Hodgson et al. 2024). Particularly during COVID-19 surges, even indirect exposure to high-stress settings, such as working in hospitals admitting COVID-19 patients, was linked to increased thoughts of leaving (Cornish et al. 2021), underscoring the impact of ambient stress on retention. It is important to note that the severity and duration of COVID-19 pressures varied across countries, and as such, differences in national policy responses and healthcare system capacity may have shaped nurses' experiences and retention decisions in ways not fully reflected in this review.

While demographic predictors of turnover were not consistent, a few interesting points emerged such as female gender, which, contrary to broader burnout literature, was associated with lower turnover intent in one study (Adriaenssens et al. 2011). A more thorough exploration of intersectionality across the sources may have provided more insight but nevertheless indicates that further investigation of turnover in relation to gendered dynamics of loyalty or role identity may be useful. Similarly, senior nurses appeared to use more complex coping strategies following WPV, which may potentially reflect deeper job embeddedness (Li, Chao, and Shih 2018).

Leadership emerged as a pivotal determinant of retention, turnover and the efficacy of interventions. In studies with stronger methodological designs (Adams et al. 2019;

TABLE 3 | Key Coping Strategies factors identified through the dual framework (intensity × frequency) analysis.

Strategy	Pre-COVID ($n = 58$)	Post-COVID ($n = 28$)
Peer support	Frequently cited, strong emphasis	Commonly cited, strong emphasis, described in negative terms, considering moral obligation
Emotion-focused coping	Occasionally cited but more common than other strategies, moderate emphasis	Occasionally cited, moderate emphasis more discussion of withdrawal.
Downshifting	Rarely cited, minimal emphasis	Occasionally cited, moderate emphasis, linked to overload.
Help-seeking	Occasionally cited, minimal emphasis, culturally limited.	Occasionally cited, moderate emphasis. Still stigmatised but some positive shifts in peer response to help-seeking.
Resilience	Occasionally cited, highlighted as protective with moderate emphasis	Rarely cited, minimal emphasis, mixed findings on its sustainability and value.

Note: Darkest blue = frequently cited + strong emphasis; lightest = rarely cited/emerging/minimal emphasis. Sorted by post-COVID strength.

Corcoran 2021), effective leadership, which was visible, communicative and responsive, was associated with increased morale, job satisfaction and a greater sense of organisational trust. In contrast, poor leadership support was frequently cited as a source of disillusionment and intent to leave, often compounding the effects of other stressors. The protective role of leadership is supported by a range of study designs, indicating that it may play a central role in retention. Furthermore, it may have a pivotal role in re-establishing institutional trust, emphasising its potential as a focus for intervention on the turnover pathway.

Professional development pathways were identified as important retention levers that intersected with multiple themes. Their presence was associated with job satisfaction and psychological resilience, whereas their absence, particularly during the pandemic, was linked to professional stagnation and disaffection. Although this relationship was tested by fewer studies, it appeared consistently across the literature ($n = 17$) to suggest a protective role that merits further evaluation.

However, the erosion of traditionally protective factors such as visible leadership, team camaraderie and career development raises concerns for post-pandemic retention. Supports that were once seen to buffer staff from the emotional toll of emergency care appear to have faltered under sustained pressure. Likewise, the emergence of 'moral obligation to stay', although a short-term retention force, may paradoxically lead to longer-term attrition if left unaddressed, reflecting a situation where nurses stayed not because of sustainable engagement, but because they could not ethically justify leaving.

Conversely, there was limited evidence pointing to a generational shift in values, as only one study suggested that younger nurses were placing greater emphasis on work-life balance, job satisfaction and career progression (Ren et al. 2024). Nevertheless, this finding aligns with broader workforce literature, which documents changing expectations among newer cohorts of healthcare professionals (Tan and Chin 2023). If such trends persist, they may signal the need for more individualised, flexible or supportive career pathways to retain emerging talent in the ED setting.

Coping strategies such as emotional suppression and minimisation were commonly reported, enabling short-term performance in high-pressure environments. However, moderate evidence suggested that prolonged reliance on these mechanisms was associated with increased psychological distress and higher turnover intent, consistent with broader occupational health literature on maladaptive coping. Further longitudinal exploration is warranted. Post-COVID early adaptive behaviours such as emotional suppression, task orientation and peer support gradually gave way to structural self-preservation strategies like role downshifting, boundary-setting and re-prioritisation of personal well-being. These responses depict a workforce attempting to maintain its integrity in the absence of reliable institutional safeguards and could be characterised as either resilience or resignation. Facilitating and encouraging nurses who make the choice to downshift or work flexible hours as an alternative to the evidenced patterns of maladaptive coping strategies may provide timely intervention on this turnover pathway.

These shifts signal a transformation in the nature of workforce risk, suggesting that the pandemic did not only exacerbate pre-existing challenges in emergency nursing but redefined the emotional and ethical terrain in which nurses operate. Rather than a continuation of pre-pandemic dissatisfaction, post-COVID turnover has become increasingly driven by moral injury and psychological depletion, with nurses no longer describing their decisions to leave in terms of disengagement but rather as acts of emotional and ethical self-preservation.

5.1 | Strengths and Limitations

This review provides a comprehensive synthesis of existing literature, yet several limitations must be acknowledged. Interpretation of findings is shaped by substantial methodological variation. The predominance of cross-sectional, self-report designs limits the ability to infer causality or examine changes over time. The inclusion of grey literature, while strengthening the comprehensiveness of the review, introduced variability in methodological transparency and reporting quality. No formal critical appraisal was undertaken, in keeping with scoping review methodology and so the rigour of individual sources could not be systematically assessed. Additionally, the inconsistent use of validated outcome measures, particularly for constructs like burnout, resilience or intent to leave, complicated cross-study comparisons and synthesis. Although pre- and post-pandemic patterns are visualised, these comparisons remain exploratory; as a scoping review, the study maps trends rather than testing hypotheses or establishing causal relationships. Interpretation of pre- and post-pandemic differences is also influenced by potential publication and reporting biases, as well as researcher subjectivity within the qualitative synthesis; these comparisons should therefore be viewed as exploratory.

Furthermore, while a large number of sources were included, the geographical distribution was uneven, with most research from high- to upper-middle-income countries such as the United States, Australia and China. This may limit the applicability of findings to low- and middle-income settings where emergency care systems and workforce dynamics may differ significantly. In addition, the intersectionality of factors was underexplored, representing a gap in the evidence base. Similarly, few studies reported on long-term outcomes or included follow-up data to assess the durability of interventions.

Regarding the review process itself, the thematic synthesis involved the interpretation of sticky note-based coding from a visual Miro board. While this allowed for rich conceptual grouping, it presents limitations in terms of reproducibility. Furthermore, the lack of a second reviewer to check the interpretation of results on the Miro board introduces subjective bias in theme categorisation affecting reliability. Nevertheless, the Miro record provides an auditable record of the process and facilitates external scrutiny.

Despite these limitations, this scoping review offers a timely and comprehensive synthesis of the current evidence and highlights important areas for future research and policy consideration.

6 | Conclusions

This review identified several factors that transcend thematic boundaries and underscore the importance of targeting multilevel factors that recur across the turnover pathway. Issues like WPV and leadership not only influence emotional well-being but also intersect with cultural norms, coping strategies and structural stressors. As such, they represent promising focal points for intervention. At the same time, traditional retention mechanisms such as career development seem to have diminished influence as nurses increasingly prioritise mental health and day-to-day survival.

COVID-19 appears to have further reshaped the landscape of emergency nursing, transforming the underlying drivers of retention and turnover. The pandemic redefined burnout from a slow attrition risk into an immediate existential threat, compounded by moral conflict and systemic distrust. In the post-COVID era, retention efforts should acknowledge the psychological injuries inflicted by sustained crisis response and the limitations of traditional motivators in a context where personal survival competes with professional duty.

Finally, workforce values appear to be evolving and supporting moral sustainability, emotional well-being and an equitable distribution of workload alongside ED operational metrics may offer a path towards not only halting attrition but also fostering a sense of purpose, professional dignity and resilience in emergency nursing.

6.1 | Implications of the Findings for Research

This review reveals several important gaps in the evidence base that warrant further investigation. While numerous studies identify factors associated with emergency nurse turnover and retention, few employ longitudinal or causal designs capable of determining which factors predict actual turnover over time or evaluating the long-term effectiveness of retention strategies. Furthermore, while various interventions show promise, the quality of evaluation is often limited. Many studies lack control groups, standardised outcome measures or sufficient follow-up. There is a clear need for rigorous comparative evaluations of interventions.

As this review identified overlapping concepts across themes, there is clear scope for future research aimed at conceptualising how individual, organisational and systemic factors interact. Participatory systems mapping research focused specifically on post-COVID retention interventions may be timely, given the rapidly evolving landscape and changing workforce expectations.

Finally, COVID-19 policy responses and healthcare system pressures differed widely across countries, and these contextual differences may have influenced nurse retention. Cross-country comparison was beyond the scope of this review, but future comparative analyses could help determine how contextual factors shape ED nurse retention and the extent to which findings translate across settings.

6.2 | Implications for Policy and Practice

This review highlights priorities for policymakers, health leaders and ED managers.

Strong, communicative leadership appears to aid retention and burnout reduction, potentially making leadership development a central retention strategy. Leadership development that incorporates principles of psychological first aid could equip leaders to recognise and respond effectively to staff exposed to cumulative trauma. Likewise, embedding structurally supported opportunities for emotional processing, with routine debriefing, reflective practice, peer support and the de-stigmatisation of help-seeking into the cultural fabric of emergency nursing may help alleviate the day-to-day burden that nurses report carrying. In tandem, these practices could help make psychological safety a foundational condition for workforce sustainability rather than an aspirational goal.

Rebuilding organisational trust through transparent communication, shared decision-making and consistent institutional support may help repair relationships strained during the pandemic. Whilst the normalisation of flexible work practices, particularly downshifting and non-linear career paths, may also prove to be valid strategies for maintaining engagement, especially among experienced staff. Consideration should also be given to maintaining sustainable transition-to-specialty programmes even during resource-constrained periods such as pandemics.

Finally, addressing WPV through comprehensive prevention, such as staff training, reporting systems and security protocols, may help reduce both burnout and turnover.

Overall, long-term workforce sustainability may benefit from the reconfiguration of organisational practices through a restorative and trauma-informed lens (Ashworth et al. 2023; Harris and Fallot 2001), helping to foster resilient teams, not just resilient individuals. While individual resilience is important, the available evidence suggests it may be most effective when supported by structural changes that reduce chronic stressors rather than placing the burden of systematic failure on individual perseverance and normalising a culture where endurance is valued over well-being.

Author Contributions

Olivia Boulton: conceptualisation, methodology, formal analysis, investigation, writing – original draft, writing – review and editing, visualisation. **Barbara Farquharson:** supervision, writing – review and editing. **Louise Hoyle:** supervision, writing – review and editing.

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Consent

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that supports the findings of this study is available in the Supporting Information of this article.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Data S1:** Thresholds for Frequency Groupings. **Data S2:** PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources. **Data S3:** Source Characteristics Table. **Data S4:** Full Protocol (published on Open Science Framework). **Data S5:** Miro board of factors associated with ED nurse turnover or retention. **Data S6:** Results of Data analysis for COVID-19 subset.