

NAVIGATING THE NIGHT: EXPERIENCES OF EMERGENCY MEDICINE RESIDENTS MANAGING CRITICALLY ILL PATIENTS – A THEMATIC ANALYSIS

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Abstract

Background: Night shifts work is unavoidable component of hospital based medical practice and are integral to emergency medicine training but associated with unique emotional, cognitive, physical and professional challenges. Understanding residents lived experiences can guide institutional strategies to improve training, supervision, learning, and well-being. **Methods:** A qualitative exploratory study was conducted in the Emergency Department of MTI Lady Reading Hospital, Peshawar, from 1st to 28th September 2025. Twelve emergency medicine residents (2nd–5th year) participated in in-person, audio-recorded interviews averaging 45 minutes. Data were transcribed verbatim and analyzed using Braun and Clarke's six-phase thematic analysis framework. Trustworthiness was ensured through triangulation, reflexivity, and member checking.

Results: Analysis revealed five overarching themes: (1) System-level constraints at night, (2) Emotional toll and cognitive fatigue, (3) Autonomy under pressure–learning versus risk, (4) Coping repertoires–short-term relief, limited restoration, and (5) Ethics of triage and fairness under scarcity. Residents described resource shortages, emotional fatigue, moral distress, and forced independence that shaped both professional growth and burnout.

Conclusion: Night shifts provide crucial experiential learning but at the expense of well-being and structured learning. Improvements in staffing, supervision, equipment reliability, and structured recovery support are needed to balance autonomy with sustainability.

INTRODUCTION

Emergency departments is characterized by unpredictability, time-sensitive decision-making, and high-stakes patient care. Physicians and residents working in this specialty often face immense pressure when managing critically ill

patients especially during night shifts when there are fewer resources and less supervision. Residents often face unique psychological, emotional, and professional challenges at night

Globally, literature highlights night shifts as a source of fatigue, burnout, and reduced cognitive performance (Smith et al., 2019; Patterson et al., 2020). In South Asian settings, these challenges are magnified by resource limitations and lack of formal recovery protocols. However, limited research explores the lived experiences of emergency medicine residents in Pakistan, where night shifts often define independent decision-making capacity.

This study aims to explore the lived experiences of emergency medicine residents managing critically ill patients during night shifts at a major tertiary-care hospital in Pakistan. By identifying the emotional, cognitive, and systemic dimensions of night-shift work, this research contributes evidence for institutional improvements and postgraduate curriculum design.

Methodology

This qualitative exploratory study employed Braun and Clarke's six-phase framework for thematic analysis. The research was conducted in the Emergency Medicine Department of MTI Lady Reading Hospital, Peshawar, between 1st and 28th September 2025.

Twelve emergency medicine residents (2nd to 5th year) coded (R1-R12) participated. A purposive sampling technique was applied to ensure variation in experience. Inclusion criteria were at least 2nd year of post graduate training and 6 months of night shift experience. In-person, semi-

structured interviews lasting approximately 45 minutes were conducted in a private, quiet hospital room and were audio recorded. The interview guide included open ended questions. Interviews explored emotional experiences, workload, decision-making, supervision, coping, institutional support and ethical challenges.

Audio recordings were transcribed verbatim. Braun and Clarke's six-step framework guided analysis: familiarization, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Coding was both semantic and interpretive. Trustworthiness was maintained through member checking, peer debriefing, and reflexivity.

Ethical approval was obtained from the Institutional Review Board. All participant received information sheet explaining the study objectives, voluntary participation and their right to withdraw at any stage. Informed written consent was obtained for participation and interview recording. Confidentiality and anonymity were ensured.

Results

A total of twelve residents (10 male, 2 females; Years 2–5 of training) participated. Interviews lasted an average of 45 minutes and provided rich accounts of working during night shifts. Five main themes and corresponding subthemes emerged from the data.

Table 1 Participant demographic

No of participant /code	Gender	Year of training	Night shifts per month
R1	Male	2 nd	6-8
R2	Male	5 th	5-6
R3	Male	5 th	5-6
R4	Female	4 th	6-7
R5	Male	3 rd	6-8
R6	Male	2 nd	6-8
R7	Male	4 th	6-7
R8	Male	3 rd	6-8
R9	Male	4 th	6-7
R10	Male	3 rd	6-8

R11	Male	4 th	6-7
R12	Female	4 th	6-7

Theme 1: System-Level Constraints at Night**Sub-theme 1A: Staff and Service Limitations**

Residents consistently reported inadequate staffing, limited supervision, and delayed responses from ancillary departments at night:

- “Decreased number of staff... no supervision.” (R 12)
- “Slow response from other specialties and departments... less number of staff.” (R 10)
- “No transfers; patient overload.” (R 4)

Sub-theme 1B: Equipment and Bed Bottlenecks

Limited ICU beds and malfunctioning monitors frequently impeded care for critically ill patients: “ICU bed availability is the biggest challenge.” (R 7)

- Functional monitors/BP devices requested as essentials. (R 5)

Sub-theme 1C: Case-Mix and Throughput Strain

non-urgent walk-ins and mass-casualty cases overloaded the emergency department:

- “Non-urgent visits at night compromise care for the critically ill.” (R 3)
- Mass-casualty/bomb-blast surge highlighting resource strain. (R 3)

Interpretation: Night shifts compound pre-existing system bottlenecks. Fewer personnel and slower downstream services amplify time-critical risks for emergency resuscitation.

Theme 2: Emotional Toll and Cognitive Fatigue**Sub-theme 2A: Stress, Anger, Guilt, and Apathy**

Residents described frustration, moral distress, and emotional depletion:

- “Anger... people were not doing their job despite being on duty.” (R 4)

“Emotionally more tiring... decreased resources.” (R4)

“Feeling of guilt... thinking what could be done better.” (R 12)

“Apathy... untidiness, exertion, sleepiness after nights.”

R6

Sub-theme 2B: Fatigue, , sleep disruption and Recovery Lag

Participants experienced chronic fatigue and poor sleep quality, affecting cognitive performance and family life:

- “Disturbed routine... social isolation, no time for family.” (R 11)
- “Takes few days to recover after a night shift.” (R11)
- “Long hours, sleep deprivation... low cognition.” (R 9)

Interpretation: Emotional strain was not incidental—it was structural. Fatigue and moral distress persisted beyond shift end, eroding recovery and well-being.

Theme 3: Autonomy Under Pressure — Learning vs. Risk**Sub-theme 3A: Forced decisiveness and confidence**

Residents valued the independence night shifts forced upon them but acknowledged the risks:

“Nights force you to be decisive.” (R4)
“Mostly on our own... quickly making decisions... instill confidence.” (R10)

Sub-theme 3B: Hindrance to planned learning

However, absence of supervision limited feedback and learning:

Lack of supervision, poor security/management, and sleep deprivation hinder learning.

R 10

R 8

R 3

“Decision-making quality dips late in the shift due to fatigue.” (R 9)

Interpretation: Autonomy promoted confidence but hindered structured learning and increased the likelihood of cognitive fatigue-driven errors.

Theme 4: Coping Repertoires – Short-Term Relief, Limited Restoration

Sub-theme 4A: In-Shift Coping

Residents used immediate coping methods such as caffeine, chatting with peers, and micro-breaks:

- “Tea, coffee, or brief talks with colleagues help us get through.” (R 10)
- Short breaks, tea/coffee, chatting with colleagues; brief rest when possible.

R 11

R 10

R 4

R 12

- Hands/face washing, micro-breaks as alertness boosters.

R12

Sub-theme 4B: Post-Shift Recovery

Most relied on sleep, prayer, or gym visits but without routine structure:

“We just deal with it... no fixed recovery pattern.” (R6, 12)

Interpretation: Coping was pragmatic and short-term; no structured recovery mechanisms existed within the department.

Theme 5: Ethics of Triage and Fairness Under Scarcity

Sub-theme 5A: Prioritization Logic

Residents described ethical tensions while allocating limited resources:

“Prioritize young and good prognosis patients.” (R 12)

Sub-theme 5B: Safety and Crowd Management

Large attendant groups often interfered with patient care:

“Crowd management during resuscitation adds another level of stress.” (R 5)

Interpretation: Ethical responsibility and fairness were constant concerns, reflecting the human dimension of emergency care under scarcity.

Discussion

This study explored how emergency medicine residents at a major tertiary hospital experience and navigate night-shift work. The findings reveal a paradox: night shifts foster professional independence and confidence while simultaneously generating sustained emotional strain and ethical pressure.

System-level challenges—including staff shortages, bed bottlenecks, and slow diagnostics—mirror reports from other low- and middle-income settings (Patterson et al., 2020; Gaba et al., 2020). These structural deficiencies are not isolated to one hospital but reflect a national pattern in emergency care infrastructure.

Emotional fatigue emerged as a dominant theme. Feelings of anger, guilt, and detachment align with prior literature on “moral distress” among emergency clinicians (West et al., 2020). The combination of cognitive overload and inadequate recovery time undermines both learning and well-being.

Autonomy under pressure was another double-edged phenomenon. Consistent with Barger et al. (2019), independence accelerated clinical confidence but reduced the opportunity for reflective learning due to lack of senior supervision and fatigue-induced decision lapses.

Coping strategies were adaptive yet insufficient. Like findings by Leary et al. (2021), residents depended on caffeine, micro-breaks, and peer support, but these short-term methods lacked the restorative effect necessary for long-term resilience.

Ethical decision-making—triage under scarcity—was a recurring stressor. Prioritizing “younger or better prognosis” patients reflected utilitarian reasoning, yet it caused emotional dissonance. Such moral balancing acts are intrinsic to emergency medicine but require structured ethical support and clearer policies.

Collectively, these findings call for **organizational interventions** rather than individual coping. A dedicated night resuscitation team, enhanced supervision (including remote consultant support), reliable equipment, and protected

recovery periods could substantially reduce fatigue and error risk

Limitations

This study was limited by its single site design which restricts the generalizability of findings to other hospitals or health care systems with differing structures, staffing or policies. The small sample size of 12 participants though sufficient for data saturation may not fully capture variations. Reliance on self-reported experience introduces subjectivity and potential recall bias, as emotional intensity can shape memory.

Conclusion and Recommendations

Night shifts in emergency medicine provide critical experiential learning but come with significant personal and systemic costs. Residents gain autonomy at the expense of rest, supervision, and emotional well-being. System-level reforms—ensuring adequate staff, functional equipment, streamlined ICU transfers, and post-night recovery policies—are vital. Support mechanisms such as structured debriefings and mentorship can help balance autonomy with sustainability.

Key Messages / Implications for Practice

- Establish a dedicated Night Resuscitation/ALS team with rapid access to ICU beds.
- Strengthen night-shift staffing and ensure availability of functioning monitors and BP devices.
- Implement structured post-night recovery protocols to prevent fatigue accumulation.
- Introduce on-call consultant supervision (in-person or remote) for critical cases.
- Develop triage policies to divert non-urgent cases away from night ED operations.

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