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The lived experiences of postgraduate medical residents in managing high patient turnover in the emergency departments of government hospitals in Pakistan

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ABSTRACT

Objectives: This study was conducted to explore and compare the experiences of the postgraduate medical residents caring for high patient turnover in the emergency department of government hospitals in Pakistan.

Methodology: This qualitative comparative study was carried out at the Casualty department allied with the Department of Medicine, Ayyub Teaching Hospital, Abbottabad. In this study, purposive sampling of 10 post graduate medical residents from various government hospitals was used. Semi-structured in-depth interviews (IDI) were used for data collection. Themes were created that captured elements of residents' experiences at the different facilities and were both similar and different.

Results: high patient loads, lack of resources and heavy workload were cited by most residents as being under intense pressure. Emotional exhaustion, negative impact on clinical decision making and a lack of support from the hospital management were prominent themes. Personal and peer coping strategies were used by several residents, but the environment was still emotionally and physically stressful. Lack of support from institutions also added to the cognitive and emotional burden which impacted wellbeing and professional confidence.

Conclusions: This study highlighted the need for structural changes to better the situation for postgraduate medical trainees in high turnover EDs. To strengthen healthcare services in Pakistan's government hospital emergency departments in a sustainable manner, quality of human resource, health facilities and mental health services needs to be enhanced

Keywords: Postgraduate medical residents, emergency department, patient turnover, government hospitals, lived experiences, Pakistan, qualitative study, healthcare challenges.

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Introduction

In hospital-based health care systems, emergency departments (EDs) are the initial and most important point of access for inpatient care, where patients present with life-threatening and urgent health care needs for immediate assessment, stabilization and treatment.[1] EDs are known globally as 'stressful settings where the flow of patients is continuous, time is of the essence and there is a lack of predictability. These problems are compounded by poor infrastructure, under-resourced staffing capacities, and under-developed primary care systems in LMICs that force the majority of primary care into tertiary care.[2]

Many of these structural issues are prevalent in Pakistan's healthcare system. Overcrowding is a common issue in government hospital EDs, especially in tertiary hospitals, which is attributed to population growth, lack of access to primary health services, and public choice for tertiary services at low cost.[3] This leads to high patient turnover (fast influx and discharge of patients within short time intervals) which puts a constant strain on health care providers. The effects of ED overcrowding have been demonstrated to be deleterious to patient outcomes, to

cause length of stay delays, and to reduce quality of care received.[4]

In the context of this, postgraduate medical residents are crucial to the healthcare workforce. Their role is two-fold; to be a trainee developing their clinical skills, as well as out on the front lines, providing much needed emergency care. They are under high workload demands, long working hours and emotionally charged clinical situations[5] due to this dual responsibility. In many government hospitals in Pakistan, people are expected to take care of several critically ill patients at once, no one has any supervision or support about them, and they are expected to take care of them without any supervision and support from the hospital, which increases their cognitive strain and emotional burden.

It is well established in the international literature that there is a relationship between physician burnout and high workload. Burnout is defined as emotional exhaustion, depersonalization and loss of sense of personal accomplishment.[6] Emergency medicine doctors and trainees are at special risk because they are often faced with trauma, death and time-critical decisions. A systematic review conducted by Hoot and Aronsky identified overcrowding as a multifactorial issue, that has an impact on patients as well as ED staff (such as stress).

Physician burnout has been linked to decreased clinical performance, more medical errors and worse mental health, such as depression and anxiety disorders.[7] Physician burnout is an individual issue, but also a systemic one caused by organizational inefficiency, too many workloads, and the absence of institutional support, West et al. underscored. This is important in LMICs, where resource limitations further contribute to stressors and lower resilience levels for health workers.

Structured Emergency Medicine in Pakistan is still under development. There have been several studies that point to problems of standardized training, inadequate supervision, and limited formal residency programmes in emergency care. Zafar et al. highlighted that there are systemic barriers to the emergency medicine in Pakistan, such as understaffing, under training system and lack of formal recognition of the specialty.[3] Such restrictions directly impact the postgraduates' experiences in EDs.

Furthermore, the working hours in government hospitals are frequently long, exceeding 12 – 24 hours, the rest periods are inadequate, and there is a lack of adequate staffing ratios. These factors lead to sleep deprivation, cognitive impairments and poor clinical performance.[8] In emergencies, there are well-known examples of errors caused by fatigue and fatigue is a serious risk to patient safety.

The mental strain of being an ED worker is also very high. Residents may be regularly exposed to trauma, high mortality rates and emotionally upsetting scenarios that can result in an acute stress response and chronic psychological impact.[9] The effects of chronic occupational stress on anxiety, emotional fatigue and job satisfaction were found in a study performed among emergency nurses, which is highly relevant for resident doctors in comparable settings.

Structural weaknesses in healthcare systems are a key determinant of residents' experiences, as well as emotional stress. Effective emergency care systems need proper infrastructure, trained staff, monitoring and oversight, and mental health support for health care workers, as stated by the World Health Organization (WHO).[10] However, several LMICs among them, Pakistan – still face challenges in effectively realizing these basics.

While these obstacles are present, residency training is an important period in the formation of competent doctors. Repeatedly seeing complex cases exposes residents to advanced clinical decision-making skills, procedure proficiency, and resilience to build.[11] But when training demands are too high and it is poorly supported, learning can be secondary to service delivery, jeopardising learning outcomes as well as well-being.

World-wide, there has been a growing focus on learning about the lived experiences of healthcare workers to drive policy and system-level changes. Emergency medicine qualitative research has revealed that when emergency services are required, front-line healthcare workers tend to use informal coping mechanisms, including peer support, emotional suppression and adaptation to stress, instead of formal psychological support systems.[12] These approaches can only be considered as short-term strategies which are not viable if no institutional intervention takes place.

There is a lack of qualitative studies focusing on the experiences of postgraduate medical residents in the emergency department in Pakistan. The majority of the studies that are available tend to be centered on quantitative measures like wait times, mortality rates, and hospital throughput. But these metrics don't measure the emotional, cognitive and psychological toll that healthcare workers take. In order to create holistic health system reforms, it is crucial to have a grasp of these subjective experiences.

This study thus seeks to address this gap by analyzing and comparing the experiences of postgraduate medical residents in GHA's emergency departments with high patient turnover in Pakistan. It particularly addresses emotional stress, cognitive burden, physical strain, coping strategies and perceptions of institutional support. The study documents these dimensions, which is a step towards a more comprehensive picture of emergency health care delivery in resource-limited areas.

Enhancing emergency care systems also needs to involve targeted interventions to safeguard the health of health carers as well as infrastructural and policy changes. Measures to enhance supervision, staffing, the implementation of mental health support systems, and strengthening residency training structures are crucial for sustainable health care delivery in Pakistan.[13]

Methodology

The present study used a qualitative phenomenological research design to try to better understand the experiences of post graduate medical residents in government hospitals in Pakistan who work in emergency departments (EDs) with a high turnover of patients. This choice of the phenomenological perspective was made to understand the subjective perception, emotional response and professional problems related to the practice in participants' real clinical environment. The study was carried out in association with the Department of Medicine and Casualty Department of the Medical Teaching Institution, Abbottabad, a public sector hospital with high volume of patient, and limited resources due to overcrowding. The study population comprised postgraduate medical residents working in emergency facilities and the study methodology was a purposive sampling technique from which participants with direct and sustained exposure to high patient turnover conditions were recruited. There were 10 residents (6 men and 4 women) from various residency years and data collection was carried out till the thematic saturation occurred, meaning there were no more themes that emerged. The information was collected using semi-structured, in-depth interviews in a confidential setting from the 8 May 2025 to 30 May 2025, to ensure that the information was not shared openly and honestly. Interviews were of about 30-60 minutes' duration. After completing a thorough literature review, a discussion with experts, and a search for relevant literature, an interview guide was created, which included topics of the workplace stressors, the emotional and physical strain, the cognitive challenges, coping mechanisms, and perceived institutional support. The interviews were audio-recorded with informed consent, and transcribed verbatim for analysis. The ethics committee of Ayub Medical College approved the study and informed consent forms were signed by all the subjects, ensuring confidentiality, anonymity and voluntariness; they were given the right to drop out of the study at any time without losing their confidentiality. The analysis of the data was carried out by Interpretative Phenomenological Analysis (IPA), including repeated reading of the transcripts, creation of initial notes, coding of meaningful statements, and coding organization into themes and subthemes that shared experiential patterns among participants. Thematic areas of key concern encompassed emotional fatigue, cognitive burden, physical fatigue, institutional neglect, professional growth, and coping mechanisms. To improve trustworthiness, findings were checked with the raw transcripts on an ongoing basis and reflexivity was maintained throughout the research process to reduce interpretive bias.

Results

Ten post-graduate medical residents took part in the study (six males, four female) and had a range of clinical experience with emergency medicine. The themes that emerged from the analysis of the interviews were intertwining and included multiple aspects of work stressors, psychological impact, physical health consequences, institutional factors and coping mechanisms.

All participants viewed the ED as very challenging and busier than other clinical settings. Many people (30%) used strong terms like “warzone” or “battlefield” when referring to their working conditions, indicating there was a high level of stress and clinical pressure in terms of patient flow. 30% of participants reported understaffing, 30% reported overcrowding, and 20% reported a lack of resources. 30% reported the challenge of having to manage multiple critically ill patients simultaneously.

The participants were highly likely to experience emotional distress. 20% reported being emotionally exhausted or experiencing burnout symptoms and 20% reported experiencing anxiety before shifts and feelings of helplessness. Psychological adaptation to chronic stress was reported with 10% reporting emotional numbness. There was also evidence of cognitive strain: 20% felt self-doubt, fear of making clinical decisions "go wrong" and a decreased level of confidence in making decisions under stress.

Often there were physical health issues reported. Nearly one-third of residents were very tired, and 20% indicated sleep problems, erratic eating habits, and stomach problems. Fewer (10-20%) reported diminished stamina and overall physical deterioration from long duty hours and not getting enough rest.

Overall, 30% of participants reported improved clinical judgment, 20% reported increased procedural confidence and 12% reported increased speed in decision making. But most of this professional development took place in an unstructured and informal environment.

It was reiterated repeatedly that there were weaknesses in the institution. Around 20% of respondents indicated that they did not receive any mentorship, structured feedback, or mental health and wellness programs. Likewise, 20% said that they did not get adequate orientation to new residents, reflecting a lack of training infrastructure.

Coping strategies were mainly informal. Peer support, emotional venting and emotional suppression were reported by 20% each, with journaling reported by 20%. Furthermore, 20% of the respondents said that they coped with work overload and 10% said that they used short relaxing periods like tea breaks.

Table I: Workplace Stressors and Psychological Impact

Theme	Description	N (n=10)	%
Overcrowding	High patient influx in ED	3	30%
Understaffing	Insufficient workforce	3	30%
Lack of resources	Equipment/space shortages	3	30%
High workload (multiple critical cases)	Simultaneous patient management	2	20%
Emotional exhaustion	Burnout and fatigue	2	20%
Anxiety before shifts	Pre-duty stress	2	20%
Helplessness	Feeling unable to cope	2	20%
Emotional numbness	Psychological detachment	1	10%
Self-doubt	Reduced confidence	2	20%
Fear of errors	Clinical uncertainty	2	20%

Discussion

This study aimed to depict the lived experiences of postgraduate medical residents in high turnover emergency departments (EDs) in government hospitals in Pakistan. The results illustrate a complex interplay of systemic health care problems, overburdened workload, psychological distress, and adaptive coping strategies that are not necessarily sustainable. In summary, the findings demonstrate that emergency medicine training environments in low-resource settings are intense and that there is considerable occupational stress in emergency medicine that impacts mental, physical and cognitive health.

Table 2: Physical Effects, Development & Coping.

Theme	**Description**	**N (n=10)**	**%**
Physical fatigue	Exhaustion due to long shifts	3	30%
Sleep disturbances	Irregular sleep cycle	2	20%
GI issues/headache	Stress-related symptoms	2	20%
Reduced stamina	Decline in physical endurance	1	10%
Clinical growth	Improved judgment & skills	3	30%
Procedural confidence	Hands-on skill improvement	2	20%
Lack of mentorship	No supervisory guidance	2	20%
No wellness support	Absence of mental health system	2	20%
Journaling	Written emotional coping	2	20%
Peer support	Informal discussion with colleagues	2	20%
Emotional suppression	Avoidance coping strategy	2	20%
Overwork coping	Staying busy to avoid stress	2	20%
Tea/short breaks	Informal relaxation	1	10%

A strong result was the high prevalence of emotional burnout and exhaustion among residents. Participants expressed that they continued to experience fatigue, anxiety, emotional detachment, and helplessness. This corresponds to extensive studies that have shown that burnout is a common problem among health care workers in general. Instead, Shanafelt et al., pointed to organizational inefficiencies like excessive workload, lack of autonomy, and insufficient institutional support as the major cause of burnout.[14] Likewise, West et al. showed that physician burnout is significantly correlated with process-level problems, such as poor workflow and poor staffing.[15] The present findings lend significant support to these conclusions, showing that housing and neighborhood structural and institutional characteristics were repeatedly cited by residents as the source of their distress, rather than personal deficits.

Another notable theme was cognitive strain, with its expression being feelings of self-doubt, concerns about

making mistakes in the clinical setting, and loss of confidence in making clinical decisions. This aligns with the evidence that burnout has a negative impact on cognitive functions like performance, attention span and clinical judgment. Rotenstein et al. identified a connection between the presence of depressive symptoms and worse professional functioning and higher risk of medical errors in medical trainees.[16] Moreover, the systematic review conducted by Dewa et al. showed that psychological distress among physicians is associated with a significant decrease in their productivity and increase in clinical risk, especially in emergency departments characterized by high pressure.[17] The current study has shown that exposure to overcrowded emergency environments can negatively impact residents' confidence and decision making capacity, and that fear of making mistakes is a symptom of this.

Decline in physical health also was common, such as fatigue, sleep disturbance, gastrointestinal symptoms, and decreased stamina. The results confirm international studies on the association between physiological exhaustion and those working long hours, and between physiological disruption and those on shift work. Dyrbye et al. showed that medical trainees who experience burnout have higher rates of somatic symptoms (headaches, fatigue, sleep disturbance).[18] Likewise, Pejtersen et al. reported a strong association between high psychological demands in healthcare work and musculoskeletal and gastrointestinal problems, which further confirms the biopsychosocial effects of occupational stress.[19]

However, there were also challenges reported, as well as professional growth, especially in the areas of clinical judgment, proficiency in procedures, and faster decision-making. This development was mostly self-directed and without formal supervision or mentorship, however. This is a key imbalance in the systems of post-graduate training, where service delivery outweighs education. Holmboe et al. highlighted the importance of structured feedback, supervision and competency-based frameworks for effective residency training, to facilitate learning and patient safety.[20] The lack of such formal structures in the current study suggests that there is a significant gap in emergency medicine training in resource limited environments.

One of the most salient results was the perception of insufficient institutional support, such as the lack of mentorship, structured feedback pathways, wellness initiatives, and mental health care. This systemic weakness plays a key role in work stress and burnout. According to West et al, the only way to see meaningful change in reducing physician burnout would be to address organizational-level factors like workload redesign, leadership involvement, and wellness infrastructure development. Likewise, Panagioti et al., showed that interventions at the organizational level (dealing with the structure and workflow of the organization) were more effective in reducing burnout than interventions at the individual level (dealing with individual resilience training).[21] The findings of the present study agree very much with these findings, suggesting the need for institutional change.

The coping strategies found among the residents were mostly informal such as peer support, venting feelings, journaling, short breaks and emotional suppression. Emotional suppression and overwork might be unhelpful coping mechanisms, which are associated with greater psychological distress in the longer term but can be relieved in the short term by peer support. Mealer et al. conducted a systematic review that identified use of informal coping strategies by healthcare workers during stressful times but noted that they were not adequate without any formal psychological intervention.[22] In the same way, Pereira-Lima et al. noted that there is a correlation between maladaptive coping and a higher probability of the persistence of burnout and a lower level of professional satisfaction.[23]

The results also highlight the broader issues of emergency department (ED) crowding in low and middle-income countries (LMICs) that are often associated with poor primary healthcare and inadequate emergency department infrastructure. In these situations, junior doctors may be held responsible for a large amount of clinical work but without the support and supervision they deserve. This not only has an adverse impact on their psychological health but also on healthcare quality. Integrated investment in the development of mental health support for healthcare workers, infrastructure and workforce is a key component of strengthening emergency care systems as highlighted by the World Health Organization.

Significantly, this study is one in a series of studies that is increasingly pushing for interventions to shift from individuals to systems. People's coping and adaptability skills are not enough when the environment they work in is structured. Rather, organizational redesign, better staffing ratios, structured supervision and formal mental health care systems are indicated as necessary for sustainable improvement. The stories of residents in this study illustrate the fact that in the absence of these

changes, both patient safety and physician health are at risk.

Overall, postgraduate medical residents working in the government hospitals's EDs are exposed to heavy psychological, physical and cognitive burden due to the root cause of systemic deficiencies. They show resilience and developmental growth, but such development takes place in a non-supportive environment which restricts sustainable development. These challenges must be urgently addressed in the context of institutional changes, such as workload management, mentorship, training structure and mental health integration in residency.

Conclusion

The study revealed that high patient output had an impact on postgraduate medical residents in the government hospitals in Pakistan emergency departments. These difficulties were physical fatigue, emotional strain, inadequate oversight and insufficient means. I did observe a lot of resilience, flexibility and a desire for patient care from the staff with all these challenges. The distribution of workload, availability of support, and the quality of training were variable across institutions, impacting residents' experiences and coping. Participants working in better-resourced hospitals had marginally better levels of satisfaction with work and opportunities to learn when compared to those working in under-resourced hospitals. Its findings revealed important dynamic data and the importance of structural changes – such as changes in staff quality, mentor support, infrastructural support etc. – that are vital for residents to achieve a better/well-being performance. In general, this study contributed rich data on the experience of medical residents, and highlighted the role of institutional support in addressing emergency care work demands.

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