

CHALLENGES AND EXPERIENCES OF INTENSIVE CARE UNIT NURSES:
A REVIEW PAPER

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Abstract

Objectives: Intensive Care Units (ICUs) require highly specialized nursing care, often provided under significant pressure. This review explores the challenges and experiences faced by ICU nurses, with particular emphasis on psychological, organizational, and interpersonal factors that influence their professional practice and overall wellbeing.

Methods and Materials: A descriptive exploratory review was conducted using Google Scholar and PubMed. The search strategy was guided by Medical Subject Headings (MeSH) and Boolean operators. Inclusion criteria were limited to peer-reviewed studies published in English within the past ten years. After applying relevance and accessibility filters, 25 studies were selected comprising qualitative research, mixed-methods studies, and systematic reviews from an initial pool of approximately 109,000 articles.

Results: Five main themes emerged from the review. First, emotional and psychological challenges were prominent, with burnout, moral distress, and compassion fatigue frequently reported among ICU nurses. Second, organizational factors such as high patient-to-nurse ratios, extended working hours, and limitations in staffing and workload were associated with decreased quality of care. Third, issues with interprofessional collaboration were identified, particularly poor communication and hierarchical structures that impeded effective teamwork. Fourth, interactions between nurses and patients' families highlighted the critical supportive role of nurses but also introduced additional emotional strain. Finally, while nurses described developing resilience through coping strategies such as professional development, mindfulness, and peer support, these mechanisms were often insufficient to counteract the systemic pressures present in ICU settings.

Conclusions: ICU nurses face complex and multifaceted challenges that impact both their well-being and patient safety. While individual resilience strategies offer some relief, sustainable improvement requires systemic reforms, including adequate staffing, structured psychological support, and enhanced interprofessional collaboration.

INTRODUCTION

Intensive Care Units (ICUs) play a critical role in modern healthcare by providing life-sustaining

treatment to patients with severe, life-threatening conditions. At the forefront of this highly

specialized environment are ICU nurses, who deliver complex care requiring continuous monitoring, rapid clinical decision-making, and advanced technological proficiency. Unlike nurses in general wards, ICU nurses regularly manage high-acuity patients and face ethical dilemmas, as well as emotionally charged situations such as end-of-life care and communication with families. These demands make ICU nursing one of the most challenging and stressful areas of the healthcare profession worldwide (Moss et al., 2016).

The global burden of severe illness is rising, driven by ageing populations, the growing prevalence of chronic diseases, and recurring public health emergencies such as the COVID-19 pandemic. In this context, burnout has become increasingly common among nurses. Systematic reviews have reported a high prevalence of burnout symptoms across various regions, underscoring the urgent need for strategies to address workforce well-being in critical care settings (Almazan et al., 2018). Studies conducted during the COVID-19 pandemic reported that approximately 68% of ICU nurses in Belgium were at risk for burnout, indicating a particularly vulnerable population (Bruyneel et al., 2021). Findings from larger multicenter studies have shown that up to 44% of critical care nurses experience severe burnout (Moss et al., 2016).

In low-resource settings such as Pakistan particularly in urban centers like Karachi the challenges of intensive care nursing may be further exacerbated by limited resources, high patient-to-nurse ratios, and inadequate psychosocial support. A cross-sectional study of 227 nurses at Civil and Dow Hospitals in Karachi found that 63.9% reported moderate levels of burnout (Ahmed et al., 2020). According to a recent report that despite a high levels of resilience among ICU nurses in Karachi, severe burnout persisted due to long shifts, excessive workloads, and insufficient rest periods (Lakhani and Amen, 2025).

These findings suggest that ICU nurses in Karachi face psychological, moral, and organizational challenges similar to those experienced by their counterparts globally factors

that can adversely affect both nurse well-being and the quality of patient care. However, there remains a lack of qualitative research exploring the lived experiences and context-specific challenges within Karachi's ICUs, particularly in areas such as moral distress, institutional support, and interactions with patients' families. This gap limits the ability to design targeted, evidence-based interventions.

Methods and Materials

To identify relevant literature for the topic challenges and experiences of intensive care unit nurses: a literature reviews a comprehensive and systematic search strategy was developed. The literature search was conducted using two major databases such as PubMed and Google Scholar were selected for their extensive coverage of nursing and biomedical research. Due to differences in indexing systems, terminology, and the application of Medical Subject Headings (MeSH), each database required tailored search strategies.

Boolean operators (AND, OR) were employed to optimize the balance between sensitivity and specificity in the search strategy. Medical Subject Headings (MeSH) terms were utilized in PubMed to identify studies specifically related to critical care nursing, while the broader scope of Google Scholar required a more flexible keyword-based approach. The primary search keywords included "ICU nurses' experiences and challenges" OR "interprofessional collaboration" AND "resilience" AND "Pakistan." These terms were strategically combined using Boolean operators to ensure comprehensive coverage while maintaining relevance to the research focus.

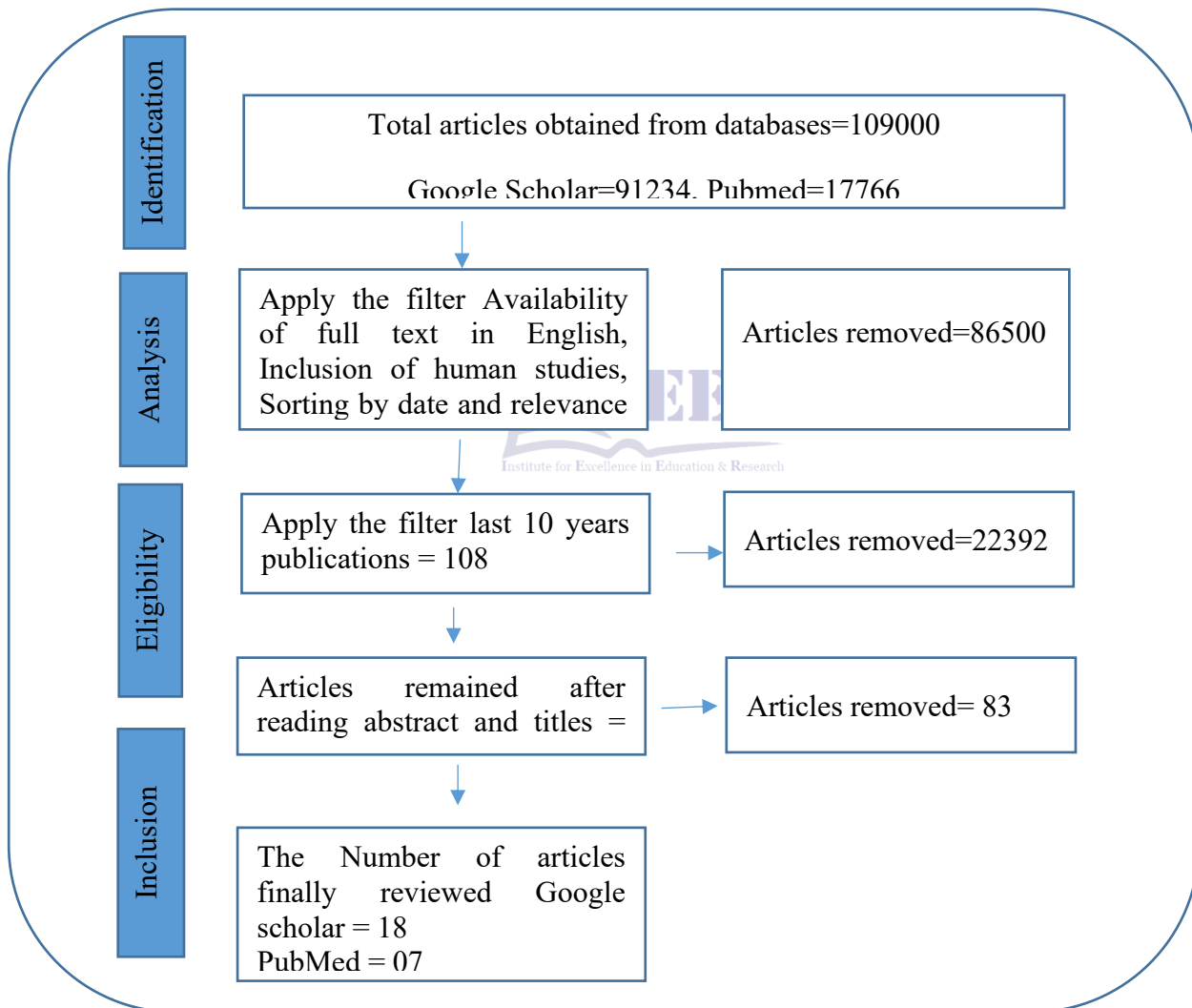
The initial database search yielded approximately 109,000 articles. To enhance relevance and manageability, multiple filters were applied, including limiting to human studies, sorting by date and relevance, and restricting to full-text articles available in English. These filters reduced the results to 22,500 articles. Further applying a publication date filter to include only studies from the past ten years narrowed the selection to 108 articles. Titles, abstracts, and relevant sections of these papers were then screened to

exclude duplicates and studies not aligned with the review objectives. Following this rigorous screening process, 25 articles were selected for in-depth analysis.

The majority of the included studies employed qualitative or mixed-methods approaches, reflecting the suitability of these methodologies for exploring nurses' lived experiences and workplace challenges. Letters to the editor, commentaries, and editorials were excluded,

whereas meta-analyses and systematic reviews were included when directly relevant to the research topic. The rigorous methodology employed in this review ensures that findings are based on reliable, high-quality evidence, providing a nuanced and comprehensive understanding of the complex experiences and challenges faced by ICU nurses, particularly within the context of Pakistani intensive care units

Figure 1. PRISMA Flow Chart



Literature Review on Exploring the Experiences and Challenges Faced by Nurses in Intensive Care Units

Collaboration among ICU nurses is essential for maintaining performance under stress and extends beyond basic professional duties. Effective teamwork fosters trust, enhances communication, and reduces the sense of isolation commonly experienced in critical care environments. Importantly, the absence of a collaborative culture contributes to increased workload-related stress and emotional exhaustion, whereas its presence is associated with improved patient outcomes and higher levels of job satisfaction (Al-Ajarmeh et al., 2021).

Expanding on this perspective, a 2019 study examined the relationship between job satisfaction, resilience, and burnout among ICU nurses. The study found that long shifts, exposure to suffering, and the relentless emotional demands of intensive care nursing often contribute to depersonalization and fatigue. However, resilience emerged as a powerful protective factor, enabling nurses to adapt, recover, and find meaning in their work. Nurses with higher resilience demonstrated greater commitment and job satisfaction, as well as lower levels of burnout (Al Barmawi et al., 2019).

Psychological & Emotional Challenges

According to a global umbrella review, nearly one-third of nurses experience high levels of burnout, with intensive care unit staff identified as particularly vulnerable due to the demanding nature of their work (Getie et al., 2025). Additionally, compassion fatigue is prevalent in this setting, with nurses reporting moderate to high levels of secondary traumatic stress, which progressively undermines their well-being and capacity to provide compassionate care (Özan and Polat, 2024). Similarly, moral distress often arising when nurses are unable to act according to their ethical judgments is a significant source of psychological strain and is strongly associated with dissatisfaction, ethical conflict, and intentions to leave the profession (Andersson et al., 2022). Additionally, ICU nurses experience higher rates of anxiety and depression compared to nurses in other specialties, particularly during crises such as the COVID-19 pandemic. These conditions contribute to reduced quality of

life, impaired sleep, and diminished clinical decision-making (Ślusarska et al., 2022).

Workload & Staffing Issues

According to a multicounty cross-sectional study, inadequate nurse-to-patient ratios have a substantial negative impact on patient safety and are highly correlated with increased levels of burnout and stress among nurses (Aiken et al., 2014). Similarly, studies in Jordan showed that intensive care unit nurses usually put in long shifts with little time for rest, which results in chronic weariness and a reduced ability to deliver high-quality care (Al Barmawi et al., 2019). A comprehensive research found that mandatory overtime and inadequate staffing levels were ongoing stressors that exacerbated work unhappiness and raised ICU nurses' intentions to leave their jobs (Lake et al., 2015). According to data from a European study, nurses' attentiveness was diminished by lengthy work hours and a lack of staff, which led to medical mistakes and worse patient outcomes (Bruyneel et al., 2015).

Interprofessional Collaboration

According to a recent qualitative study conducted in Canada, open communication and respect for one another were often hindered by communication breakdowns and enduring hierarchical norms, even though both nurses and doctors recognized the need of interprofessional collaboration (Butler and Fox, 2024). A recent study conducted in the United States, nurses frequently felt that doctors did not acknowledge them enough, which negatively impacted their professional self-perception and decreased their desire to participate in clinical team decision-making (Landis et al., 2025). A cross-sectional study done in Jordan, firm hierarchies and a lack of institutional support undermined teamwork and increased discontent among intensive care unit nurses, demonstrating the critical influence organizational culture played (Al-Ajarmeh et al., 2021). In support of these findings, a comprehensive study found that trust, shared decision-making and acknowledging the knowledge of each professional were all strongly associated with effective interprofessional collaboration; however, these elements were frequently jeopardized by unequal

power relations within healthcare teams (Reeves et al., 2017).

Nurse-Family Interaction

ICU nurses often act as emotional intermediaries between critically ill patients and their families, providing comfort and clarity during uncertain times. A qualitative study from the United States highlighted this supportive role (McAndrew et al., 2016). Similarly, research in South Korea found that nurses not only delivered medical updates but also assisted families in managing emotional distress, significantly increasing nurses' daily emotional workload (Sala Defilippis et al., 2020). A mixed-methods study from Sweden reported that repeated communication in morally challenging situations, such as end-of-life decision-making, heightened stress and moral distress among ICU nurses, despite families valuing their empathy and availability (Karlsson et al., 2012). A recent Canadian study emphasized that while effective nurse-family engagement fosters trust and reduces family anxiety, it demands substantial time and emotional investment from nurses, often without institutional recognition or support (Henrich et al., 2011).

Coping Strategies & Resilience

A cross-sectional study conducted in Turkey found that ICU nurses primarily relied on cooperation and peer support as coping strategies, with interconnected encouragement reducing feelings of isolation and enhancing resilience in high-stress environments (Ludin, 2018). Similarly, research in China demonstrated that critical care nurses who engaged in mindfulness and self-care practices, including relaxation and emotional regulation techniques, experienced decreased anxiety and improved psychological adjustment (Karavasileiadou, 2022). A recent study from Spain further emphasized the protective effects of resilience training and continuing education, showing that nurses participating in structured programs were better equipped to manage burnout, although systemic issues such as staffing shortages continued to undermine their coping capacity (Moreno-Jiménez et al., 2020).

Conclusion

Intensive care unit nurses face a unique array of challenges that extend well beyond routine clinical duties. As highlighted in this review, burnout, moral distress, compassion fatigue, and the persistent stress associated with high patient acuity represent significant psychological, emotional, and organizational burdens borne by ICU nurses. These challenges are exacerbated by excessive workload demands, staffing shortages, and insufficient institutional support, all of which threaten both nurse well-being and patient outcomes. Furthermore, effective teamwork is often undermined by strained interprofessional collaboration and hierarchical dynamics, while the emotionally demanding role of supporting patients' families adds an additional, frequently overlooked, layer of responsibility in clinical practice and policy. Despite these severe challenges, ICU nurses demonstrate remarkable resilience through coping strategies such as mindfulness, peer support, and ongoing professional development. Nonetheless, individual resilience alone is insufficient to address systemic issues, particularly in resource-limited settings where staffing deficits and lack of psychosocial support remain pervasive.

To enhance the sustainability of intensive care nursing, systematic interventions addressing both organizational and individual aspects of well-being are urgently required. Future research should focus on context-specific strategies to improve interprofessional collaboration, mitigate moral distress, and foster resilience, particularly within resource-constrained healthcare systems. Policymakers must prioritize investments in family-centered care models, supportive leadership, and adequate staffing to safeguard the health of the nursing workforce and ensure high standards of patient care. Ultimately, maintaining the well-being of intensive care nurses is not only a professional obligation but also essential for delivering safe, ethical, and compassionate critical care.

Recommendations

Strengthen Nurse-to-Patient Ratios

Maintaining adequate staffing levels is essential to reduce workload demands, prevent burnout, and enhance the quality of patient care. Prioritizing

investment in human resources is especially critical for policymakers operating in resource-limited settings.

Integrate Structured Mental Health and Resilience Programs

ICU nurses with regular access to counseling, mindfulness training, and resilience-building programs demonstrate improved capacity to manage compassion fatigue, moral distress, and emotional exhaustion.

Promote Interprofessional Collaboration

The implementation of collaborative cultures within hospitals can improve teamwork and job satisfaction by fostering open communication, reducing hierarchical barriers, and recognizing the contributions of all healthcare team members.

Institutionalize Family-Centred Care Models

Emotional strain can be alleviated and trust between families and healthcare teams enhanced by providing nurses with formal training and institutional support focused on nurse-family communication.

Encourage Context-Specific Research

Further mixed-methods and qualitative research is needed across diverse cultural and healthcare settings, particularly in low- and middle-income countries, to document lived experiences and guide the development of tailored interventions.

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