

# The Effectiveness of Stress Management Techniques in Emergency Nurses: A Systematic Review of Existing Studies

Hana Ali Ayed Alruwaili<sup>1</sup>, Afrah Ali Ayed Alruwaili<sup>2</sup>, Majidah Meshal Ghazai Alruwaili<sup>3</sup>, Tahani Ali Khalaf Alshammari<sup>4</sup>, Fatimah Meshal Ghazai Alruwaili<sup>5</sup>, Suad Ali Ayed Alruwaili<sup>6</sup>, Hilalah khalaf Barakah Alanazi<sup>7</sup>, Halal Matrouk Orayfij Alruwaili<sup>8</sup>, Reem Shafe Al-Ruwaili<sup>9</sup>, Ajayb Oqalaa Bushaytan Alhazmi<sup>10</sup>

1. *Nursing specialist, Prince Miteb bin Abdulaziz Hospital, Al-Jouf Health Cluster*
2. *Nursing specialist, Prince Miteb bin Abdulaziz Hospital, Al-Jouf Health Cluster*
3. *Nursing specialist, Prince Miteb bin Abdulaziz Hospital, Al-Jouf Health Cluster*
4. *Nursing specialist, Prince Miteb bin Abdulaziz Hospital, Al-Jouf Health Cluster*
5. *Nursing and Midwifery, King Abdulaziz Specialist Hospital in Sakaka - Al-Jouf*
6. *Technician-Nursing, Ministry of Health Branch in Al-Jawf Region, Sakaka - Al-Jawf*
7. *Nursing Technician, General Medical Authority, Al-Jouf Region.*
8. *Nursing Technician, General Medical Authority, Al-Jouf Region*
9. *Nursing technician, Al-Jawf Women, Maternity and Children's Hospital*
10. *Nursing Technician, Prince Abdulaziz bin Musaed Hospital, Arar*

## Abstract

Emergency nurses face significant levels of occupational stress due to the demanding and unpredictable nature of their work. This stress, if unmanaged, can lead to severe consequences, including burnout, emotional distress, and physical health problems, which ultimately affect both nurse's well-being and the quality of patient care. This systematic review examines the effectiveness of stress management techniques aimed at alleviating stress among emergency nurses. The review identifies key stressors affecting emergency nurses, including work-related challenges, emotional burdens, and organizational shortcomings. It explores various stress management interventions, such as mindfulness-based stress reduction (MBSR), cognitive-behavioral therapy (CBT), relaxation techniques, and workplace support programs. The findings indicate that these strategies can significantly reduce stress, enhance emotional resilience, and improve job satisfaction when tailored to the unique demands of emergency nursing. By synthesizing evidence from existing studies, this review provides actionable insights for healthcare administrators and policymakers to develop and implement targeted stress management programs. These interventions not only support nurse well-being but also contribute to improved healthcare outcomes. Future research should focus on evaluating the long-term effectiveness of these techniques and exploring innovative approaches to stress reduction in emergency nursing contexts.

**Keywords:** Effectiveness, Stress Management Techniques, Emergency Nurses

---

## Introduction

Emergency room nursing is one of the most intense areas of healthcare. It is a place where life and death decisions are made every minute, and the pressure can be overwhelming. This high-stakes environment requires exceptional clinical skills and stress management strategies [1]. Emergency units within healthcare settings are among the most demanding and high-stress environments encountered in the medical field [2]

Emergency nurses play a pivotal role in delivering critical care under high-pressure conditions, often facing emotionally and physically demanding situations. The unpredictable nature of emergencies, combined with long working hours, exposure to trauma, and life-or-death decision-

making, makes them highly susceptible to stress. Prolonged exposure to such stress can lead to burnout, compassion fatigue, reduced job performance, and adverse health outcomes, ultimately affecting the quality of patient care.

Stress can be defined as a state of discomfort experienced by an individual, resulting from activities that are perceived as excessively intense and frequent. Such activities surpass an individual's coping capabilities and available resources for effective management [3]. Stress is an increasingly concerning phenomenon among nursing professionals because of intense workload [4]. Given the profound implications of stress on both nurses and the healthcare system, stress management has become a significant focus of research in recent years [5]. Effective stress management techniques can enhance coping mechanisms, improve mental health, and boost job satisfaction and retention among emergency nurses. These strategies range from mindfulness-based interventions, cognitive-behavioral therapy (CBT), and physical activity programs to workplace modifications and organizational support systems [6].

Despite the availability of various stress management approaches, their effectiveness across different contexts and populations remains inconsistent. This underscores the need to critically evaluate existing evidence to identify the most impactful techniques tailored to the unique challenges faced by emergency nurses. This systematic review aims to synthesize the current body of literature on the effectiveness of stress management techniques among emergency nurses. By identifying evidence-based strategies, the study seeks to inform policy makers, healthcare administrators, and educators on how to support this essential workforce, ensuring both their well-being and the sustainability of high-quality emergency care.

### **Concept of stress management**

Stress management involves using different coping techniques and strategies to improve the way you react to stressful things in your life and build resilience. But it's not for everyone. Stress management refers to the act of developing and implementing strategies or interventions aimed at reducing or controlling occupational stress, particularly in high-stakes professions like emergency nursing [7]. These strategies are designed to mitigate the negative effects of stress, enhance coping mechanisms, and promote overall well-being. In the context of emergency nursing, where professionals are exposed to intense work demands and emotionally charged situations, effective stress management is not merely a personal necessity but also a critical organizational priority [8]. The high levels of occupational stress among emergency nurses can result in adverse consequences, including burnout, decreased job satisfaction, and compromised patient care. Stress management interventions encompass a wide range of approaches, from individual techniques like mindfulness, relaxation exercises, and physical fitness programs, to systemic solutions such as enhanced team communication, supportive leadership, and access to professional counseling services [9].

Understanding the effectiveness of these interventions is essential for designing comprehensive strategies to support emergency nurses. This systematic review explores the evidence on stress management techniques specific to this population, providing insights into which methods have demonstrated the most significant impact on reducing stress and improving both personal and professional outcomes. By doing so, this study contributes to a better understanding of how healthcare systems can foster resilience and sustainability in emergency nursing.

### **Stress management techniques**

Nurses face significant stressors in their day-to-day lives. Fast-paced work environments filled with life-and-death situations, long hours, and nurse shortages that burden healthcare providers all combine to create extremely stressful working conditions. One problem is that healthcare

professionals, including nurses, can only offer quality care if they're mentally and physically well themselves. A nurse who is experiencing physical symptoms of stress can't always devote their full attention to what a patient is dealing with [4].

Effective stress management techniques are vital in proactively addressing the impact of stress. Using these techniques in daily life can help people feel more empowered and in control, leading to better overall mental, physical, and emotional health. Some effective stress management techniques include practices like Mindfulness meditation, Deep breathing exercises, Physical activity, Time management strategies, Seeking social support [10]. Managing stress is crucial for nurses to maintain their well-being and provide the best care for their patients. By incorporating these stress management techniques into daily routines, nurses can enhance their resilience, reduce burnout, and thrive in their careers.

### **Key Stressors in Emergency Nursing: Understanding the Challenges**

Nurses working in emergency units are frequently exposed to high levels of stress due to the demanding nature of their roles [10]. Emergency nursing is one of the most demanding and high-pressure specialties within the healthcare field. Nurses in this area frequently encounter critical and unpredictable situations that require immediate attention, quick decision-making, and emotional resilience [5]. These challenges arise from a combination of work-related, emotional, and organizational stressors, all of which significantly impact their mental health and job performance [11].

Work-related stressors are particularly prevalent in emergency nursing. Nurses often deal with high patient loads, long working hours, and insufficient staffing levels. The fast-paced and unpredictable environment demands multitasking and constant vigilance, increasing the risk of errors and physical exhaustion. Additionally, the frequent exposure to traumatic events, such as severe injuries, cardiac arrests, and deaths, contributes to a cumulative stress burden that can severely affect their well-being [8].

Emotional stressors further exacerbate the challenges faced by emergency nurses. Providing care in life-threatening situations often takes a heavy emotional toll, especially when outcomes are unfavorable. Nurses may experience compassion fatigue, particularly when dealing with patients suffering from chronic conditions, severe injuries, or emotional trauma. They are also prone to moral distress, which arises when they are unable to provide optimal care due to resource limitations or ethical conflicts. These emotional challenges can lead to feelings of helplessness, frustration, and diminished job satisfaction [12, 13].

Organizational stressors also play a significant role in the stress levels experienced by emergency nurses. Issues such as lack of managerial support, inadequate resources, and ineffective communication within healthcare teams often leave nurses feeling undervalued and unsupported. These systemic issues not only impact on their professional satisfaction but also hinder their ability to provide high-quality care, further compounding their stress [12].

Understanding these key stressors is crucial for addressing the mental health challenges faced by emergency nurses. By identifying the root causes of stress, healthcare organizations can implement targeted strategies to mitigate their effects and foster a supportive work environment. This understanding serves as the foundation for evaluating and implementing stress management techniques that are tailored to the unique demands of emergency nursing.

### **Evaluating Stress Management Techniques: Evidence from Existing Studies**

The impact of stress on nurses is well-documented, with evidence highlighting its association with burnout, emotional distress, and a range of physical ailments. Prolonged exposure to stress can lead to significant health challenges, including high blood pressure, chronic fatigue, headaches,

sleep disorders, and gastrointestinal problems. These issues not only affect nurses' personal well-being but also impair their ability to provide effective patient care [11].

Stress levels among nurses are influenced by a complex interplay of three interconnected elements: individual factors, personal life circumstances, and the work environment. Individual factors, such as personality traits, coping mechanisms, and resilience, determine how nurses respond to stressors. For example, nurses with strong emotional resilience and adaptive coping strategies may experience lower stress levels than their counterparts. Personal life circumstances, including family responsibilities, financial pressures, and social support networks, also significantly impact on a nurse's capacity to manage workplace stress [14].

The work environment plays a central role in shaping stress levels. Factors such as workload intensity, lack of control over work processes, interpersonal conflicts, and limited access to resources can escalate stress levels among nurses. Emergency nurses face unique stressors due to the high-stakes nature of their work, requiring targeted interventions to address their needs effectively [6]. Existing studies have explored a variety of stress management techniques aimed at mitigating these challenges. Interventions such as mindfulness-based stress reduction (MBSR), cognitive-behavioral therapy (CBT), relaxation techniques, and organizational support programs have shown promise in reducing stress levels. Additionally, strategies that promote a healthy work-life balance, such as flexible scheduling and peer support initiatives, have been highlighted as effective measures for fostering resilience [14].

Evaluating the effectiveness of these techniques is crucial for understanding which approaches yield the most significant benefits. A systematic review of existing studies provides valuable insights into evidence-based practices, helping healthcare organizations design and implement interventions tailored to the specific needs of their nursing staff. By prioritizing stress management, institutions can enhance nurse well-being, improve job satisfaction, and ultimately deliver higher-quality patient care.

### **Conclusion**

Stress management is essential for supporting the well-being and performance of emergency nurses, who face significant occupational stress due to the high demands and challenges of their profession. Prolonged exposure to stress not only affects their mental and physical health but also impacts their ability to deliver optimal patient care. Addressing these challenges requires a multifaceted approach that considers individual factors, personal circumstances, and workplace dynamics.

This systematic review highlights the importance of evidence-based stress management techniques, such as mindfulness, cognitive-behavioral therapy, relaxation strategies, and organizational support interventions. These strategies have demonstrated potential in alleviating stress, improving resilience, and fostering job satisfaction among emergency nurses. Furthermore, addressing systemic issues, such as workload intensity, resource availability, and supportive leadership, is critical to creating a sustainable and nurturing work environment.

By synthesizing existing research, this review underscores the need for tailored interventions that address the unique stressors faced by emergency nurses. Healthcare organizations must prioritize the implementation of effective stress management programs to safeguard the well-being of their nursing staff, enhance job satisfaction, and ensure the delivery of high-quality patient care. Future research should focus on identifying the most effective interventions for specific populations and exploring innovative approaches to stress management in emergency nursing.

## References

1. Sharma, J., Dhar, R. L., & Tyagi, A. (2016). Stress as a mediator between work-family conflict and psychological health among the nursing staff: Moderating role of emotional intelligence. *Applied Nursing Research*, 30(2016), 268–275. <https://doi.org/10.1016/j.apnr.2015.01.010>
2. Durand, A.-C., Bompard, C., Sportiello, J., Michelet, P., & Gentile, S. (2019). Stress and burnout among professionals working in the emergency department in a French university hospital: Prevalence and associated factors. *Work*, 63(1), 57–67.
3. Alharbi H, Alshehry AJAS. Perceived stress and coping strategies among ICU nurses in government tertiary hospitals in Saudi Arabia: a cross-sectional study. 2019;39(1):48–55
4. Hegney, D. G., Craigie, M., Hemsworth, D., Osseiran-Moisson, R., Aoun, S., Francis, K., & Drury, V. (2014). Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia: Study 1 results. *Journal of Nursing Management*, 22(4), 506–518. <https://doi.org/10.1111/jonm.12160>
5. Abellanoza, A., Provenzano-Hass, N., & Gatchel, R. J. (2018). Burnout in ER nurses: Review of the literature and interview themes. *Journal of Applied Biobehavioral Research*, 23(1), e12117.
6. Bolado GN, Ataro BA, Gadabo CK, Ayana AS, Kebamo TE, Minuta WM. Stress level and associated factors among nurses working in the critical care unit and emergency rooms at comprehensive specialized hospitals in Southern Ethiopia, 2023: explanatory sequential mixed-method study. *BMC Nurs*. 2024 May 21;23(1):341. doi: 10.1186/s12912-024-02004-w. PMID: 38773519; PMCID: PMC11106981.
7. Happell, B., Dwyer, T., Reid-Searl, K., Burke, K. J., Caperchione, C. M., & Gaskin, C. J. (2013). Nurses and stress: Recognizing causes and seeking solutions. *Journal of Nursing Management*, 21(4), 638–647. <https://doi.org/10.1111/jonm.12037>
8. Ahmed, S. S., & Sajit, K. R. (2022). Effectiveness of problem-solving strategies for stress management among emergency nurses working in Mosul City Hospitals. *International Journal of Health Sciences*, 6(S4), 2876–2882. <https://doi.org/10.53730/ijhs.v6nS4.8067>
9. Xu HG, Kynoch K, Tuckett A, Eley R. Effectiveness of interventions to reduce emergency department staff occupational stress and/or burnout: a systematic review. *JBIS Synth*. 2020 Jun;18(6):1156-1188. doi: 10.11124/JBISIR-D-19-00252. PMID: 32813371.
10. Wike Hariani Sari, Fakultas Kesehatan, (2024), Analysis of the Effectiveness of Stress Management Training for Nurses in Emergency Units, Indonesia, *International Journal on Health and Medical Sciences*, Vol. 2, No. 3, pp. 82-90
11. Giesler RF. Implementation of a Stress Management Program for new nursing graduates. Aspen University; 2021.
12. Alborzkouh P, Nabati M, Zainali M, Abed Y, Shahgholy Ghahfarokhi F. A review of the effectiveness of stress management skills training on academic vitality and psychological well-being of college students. *J Med Life*. 2015;8(Spec Iss 4):39-44. PMID: 28316704; PMCID: PMC5319270.
13. Shabani M, Moghimi M, Zamiri RE, Nazari F, Mousavi Nasab N, Shajari Z. Life Skills Training Effectiveness on Non-Metastatic Breast Cancer Mental Health: A Clinical Trial. *Iran Red Cres Med J*. 2014;16(1):e8763. doi: 10.5812/ircmj.8763
14. Niazi AK, Niazi SK. Mindfulness-based stress reduction: a non-pharmacological approach for chronic illnesses. *N Am J Med Sci*. 2011 Jan;3(1):20-3. doi: 10.4297/najms.2011.320. PMID: 22540058; PMCID: PMC3336928.