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Physician burnout in critical care and emergency unit setting

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Abstract---All types of healthcare professionals can develop burnout syndrome (BOS), while those who serve in critical care and emergency units are more susceptible to it. The emergence of BOS is linked to an imbalance between a team member's personal traits and problems at work or with other organisational elements. BOS is linked to a number of negative effects, including as higher rates of employee turnover, lower patient satisfaction, and lower levels of care quality. BOS also has a direct impact on the mental and physical health of the many physicians and other healthcare workers that work in emergency and critical care settings around the world. Critical care medical professionals and other psychological illnesses went mostly undetected until recently. The current paper examines the burnout prevalence among doctors in critical care (CC) unit and emergency unit physicians, the risk factors (RF) of burnout and their consequences, prevention and treatment measures of BOS and intensive and non-ICU healthcare workers' burnout prevalence comparison were also studied. It finally concludes from the study that the physicians from the Critical Care Unit and emergency department unit are more stressed and prone to high burnout levels than others. Many burnout types of research focused on the negative impacts on patients of the condition, like the safety of patients, their happiness with their care, and the quality of the care they received. However, it is equally important to promote the well-being of medical workers.

Keywords---Burnout syndrome (BOS), critical care, burnout, emergency care unit, physician, ICU, moral distress.

Introduction

Burnout has been defined as a protracted reaction to persistent interpersonal and emotional stress at work [1]. It is frequently the outcome of a period of exerting excess effort on the job while having insufficient downtime [2]. Burnout syndrome can occasionally result in clinicians treating their patients like objects rather than people and developing negative, cynical, antagonistic attitudes and feelings

toward them. Personal accomplishments that are lacking are an indication of low self-esteem, insecurity, as well as inefficiency in day-to-day activities. According to several studies, the percentage of fatigued physicians' ranges anywhere from 25 to 60 percent across all medical disciplines [3].

As per research surveys of both physicians in training [4] as well as practicing physicians [5], physician stress & burnout, an illness related to work that is classified by mental exhaustion, depersonalization, as well as a lower sense of personal achievement, has reached alarming proportions with an incidence that is either close to or exceeds 50 percent. Implications entail negative impacts on healthcare professionalism [6], patient safety, professional competence, and physicians' services [7] as well as well-being & safety (considering many problems, such as mental illness & car accidents), healthcare system sales and profits, & physician professional workload substantial reduction. Evidence has demonstrated a correlation between one-point changes in burnout levels and significant variations in self-perceived severe medical errors, eight work-hour reductions, [8] and suicidal ideation [9].

As a result of these worries, requests have been made for more focus on physician health, including initiatives to combat burnout [10]. Table 1 explains the symptoms of physician burnout. It is now impossible to have a comprehensive understanding of the quality & findings of the literature on techniques to avoid and reduce burnout, which is a prerequisite for creating a solid basis for future studies to fill up the gaps.

Table 1
Symptoms of Physician Burnout

Physical Symptoms	Psychological Symptoms
Headache	Anger
Muscle Tension	Frustration
Insomnia	Fear
Exhaustion	Anxious
Fatigue	Lack of ability to express happiness
GI problems	Not being professional

Burnout prevalence among doctors in critical care (CC) unit and emergency unit physicians

Numerous research findings [11–13] show that between 25 & 33 percent of CC and emergency unit doctors have serious symptoms related to stress and burnout, and up to 86 percent showed at least one of the three traditional signs, which are depersonalization, decreased personal achievement, and exhaustion [14]. Compared to other medical specialties, critical care and emergency unit clinicians encounter burnout more frequently [15]. The most prominent indicator of burnout among CC unit and emergency unit doctors is emotional exhaustion (73 percent), preceded by a failure of personal accomplishment (60 percent) and depersonalization (48 percent) [16]. A "contagion effect" may occur in enterprises with a hazardous work environment [17]. The significant lack of CC and emergency unit doctors and the need to recognize and address doctor stress &

burnout [15]. Up to 45 percent of the time, physicians who work in CC as well as in emergency unit have reported showing symptoms of serious burnout [18]. The incidence of burnout & stress in other CC and emergency unit healthcare professions, like healthcare professionals & social workers in physical, respiratory, occupational, and speech therapy, is poorly understood [19].

The risk factors (RF) of burnout

The cross-sectional structure of the majority of previous investigations [20] makes it challenging to demonstrate the possible link between the majority of RF as well as the beginning of burnout. Four different types of RF can be recognized for burnout: (1) personal characteristics, (2) organizational components, (3) significant professional interactions, as well as (4) exposure to anxieties or concerns about death [20] (Figure 1). Self-criticism, unhealthy coping mechanisms, sleep deprivation, and an imbalance between work and life are all personal traits linked to burnout [21]. Idealism, perfectionism, and over-commitment are additional personal risk factors for burnout; these traits are frequently seen in the greatest and most productive workers. On the other hand, extroverted, conscientious, and agreeable people are less prone to exhibit signs of burnout. Neurotic people are also more likely to experience burnout [22]. Burnout was once believed to be a phenomenon that only affected professionals later in their careers. Still, studies show that it is more common in younger physicians than in their more experienced counterparts and can begin as soon as residency training [23]. High rates of burnout have also been linked to lacking a strong support network outside the workplace, such as a spouse or children [24]. Organizational factors leading to burnout include:

- An enormous amount of work
- A lack of control over the workplace environment
- Insufficient benefits
- A disruption in the working atmosphere

Burnout is a problem for CC and emergency unit doctors who cannot choose their days off, have a high patient turnover rate, or don't participate in an ICU working group [13]. Higher rates of physician burnout were also linked to having to make ethical judgements. The strained interactions between medical staff, patients, and their families are a substantial source of stress. End-of-life (EOL) issues, like caring for a dying person and participating in or observing decisions to discontinue life-prolonging therapies, are widely cited as RF among physicians. Consequently, increased levels of burnout amongst medical personnel in CC and emergency unit are associated with higher unit-specific survival rates [25].

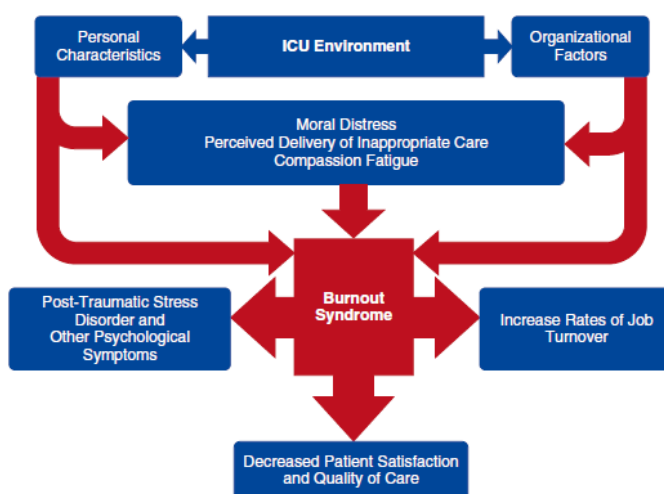


Figure 1. Burnout RF (ICU= Intensive care unit) [20]

Burnout Consequences

Burnout consequences include posttraumatic stress disorder (PTSD), alcoholism, and even suicidal thoughts in critical care and emergency unit medical personnel [26]. Intrusion, avoidance, negative cognitive and affective changes, and noticeable changes in arousal and responsiveness are all symptoms of PTSD. A single catastrophic incident can trigger PTSD, as can chronic or recurring exposure to traumatic events. Additionally, nearly all doctors (98%) who have PTSD will also exhibit symptoms associated with burnout [16]. Participating in EOL challenges, being overburdened, caring for combative patients, observing injuries or severe bleeding, and providing post-mortem care are ICU-related factors for PTSD [27,28]. Many variables can impact a healthcare professional's decision to leave their current position. Moreover, burnout influences a healthcare expert's choice to abandon the line of work [28]. Since competent doctors who leave the ICU should be substituted, high turnover rates increase healthcare expenditures, reduce efficiency, weaken employee satisfaction, and lower the quality of care altogether [29].

Additionally, burnout relates to decreased efficiency and poor work performance, which affect the quality of care. There were strong dose-response relationships between burnout evaluations and medical blunders in investigations featuring primarily physicians. Following a medical blunder, doctors from CC and emergency unit may experience extreme work-related distress, including fear about prospective blunders, lack of confidence, difficulties sleeping, reduced employee satisfaction, and concerns of reputational damage [30]. Discovering techniques to minimize burnout and turnover among CC and emergency unit professionals would also likely have a substantial impact on the care grade and healthcare expenditure.

Burnout prevention and treatment measures

No sizable randomized control trials have looked at current methods for treating or preventing burnout among critical care and emergency unit medical personnel. Two kinds of treatment options can be used to treat or prevent burnout associated with CC: (1) treatments aimed at enhancing the ICU atmosphere and (2) treatments focused on supporting patients in dealing with their circumstances. Establishing and maintaining a healthy work environment that encourages respect may be a crucial strategy for reducing stressful situations in the ICU environment [31,32]. An analysis from the American Association of CC doctors says that a healthy workplace needs to meet six specifications: 1) good communication, 2) authentic collaboration, 3) effective decision, 4) the correct combination of personnel, 5) constructive recognition, as well as 6) strong leadership [33]. A healthy ICU workplace should also emphasize "improving EOL care" and "preventing or managing conflicts." Communication, collaboration, and sensible decision-making during emotional extremes are necessary to encourage the team and minimize stressful situations. It can improve workplace health by holding team debriefings, engaging in organized communication, and collaborating with team members on significant decisions [34].

Health care providers should consider accepting personal responsibility for preserving their own mental and physical well-being and fostering resilience. Resilience is a multifaceted quality that enables someone to survive in challenging situations with rapid rates of change [35]. Table 2 explains potential solutions for critical care and emergency unit burnout prevention and treatment. Family care conferences are now urged within 72 hrs. of ICU admittance [36] to understand prognosis & treatment goals with the families of severely ill patients, especially those with serious sepsis as well as multiple organ system failures. These measures, coupled with the usage of palliative care & ethics counselling, may minimize the moral distress that ICU physician's face, which is believed to be a significant mediator in the development of burnout. More research is required to find specific treatments for psychological illnesses like burnout and others in critical care as well as emergency unit medical personnel. Burnout treatment measures include academic institutions, group patient advocacy, professional organization, etc. Professional societies help members' education and informational requirements. These programs focus on improving medical knowledge, updating healthcare rules, and teaching new practices.

Intensive and non-ICU healthcare workers' burnout prevalence comparison

The surroundings of the ICU are very distinctive from that of the general wards. It has been discovered that burnout is more common in the ICU because the work is getting harder, the people with the disease are sicker, as well as members of the family & patients are under more mental trauma. According to four large-scale research investigations, the incidence of burnout ranged from 28 percent to 61 percent, suggesting that ICU healthcare providers were significantly more likely to experience burnout than the typical healthcare worker [37].

Table 2
Potential solutions for CC and emergency unit burnout prevention and treatment

Environment-related actions	Encouraging a productive workplace
mitigation strategies for RF	➤ Palliative care advice sessions ➤ Ethics consultations ➤ Defining each ICU patient's treatment objectives ➤ Conference with family members within 72 hours of ICU arrival
Team-based interventions	➤ Team debriefings ➤ Using tools that are established for communication ➤ Forming a team and interacting with others ➤ Training
Collaborative interventions	➤ Debriefings with the entire team ➤ Utilization of formal communication tools ➤ Training in interpersonal skills and teamwork
Practitioner-focused interventions	➤ Stress management instruction ➤ Calming strategies ➤ Management of time ➤ Practise with assertiveness ➤ Meditation ➤ Work-life balance indicators: family, interests, & social activities ➤ Self-care practises include getting enough sleep, exercising, and maintaining a balanced diet.

Conclusion

Most of the research on burnout focused on the negative impacts on patients of the condition, like the safety of patients, their happiness with their care, and the quality of the care they received. However, it is equally important to promote the well-being of medical workers [38,39].

Professionals in critical care and emergency unit nursing and their friends and families

There should be services available to healthcare professionals who can recognise the signs and symptoms of burnout. Family members of CC and emergency unit medical workers should be notified of the warning signs of burnout and trained about its long-term consequences.

ICU Unit-based Leaders

Healthcare directors, unit-based administrators, as well as ICU nurse supervisors need to know if any of their staff have mental health problems that are happening at the same time. ICU nurse managers as well as medical directors can promote their workers to take part in running the unit, reward great work, and try to make the workplace a good place to be.

Professional Organizations

Professional societies play a crucial role in their members' education and informational needs. These educational programmes frequently concentrate on advancing medical understanding, revising healthcare regulations, and imparting fresh methods of practise. Professional organisations should tell their members about burnout as well as other psychological problems that could hurt their mental and physical health, lower the quality of care they give to their patients, and dissuade trainees from going into their fields.

Academic institutions preparing the next wave of healthcare workers

In career guidance, academic institutions are crucial. The positions and specialties in which students and postgraduate trainees are most likely to succeed should be pursued. Nevertheless, fewer undergraduates and postgraduate trainees are being hired for specializations that involve a lot of stress. Career counsellors should enhance trainees' readiness for their chosen jobs and help them build more satisfying and long-lasting careers.

Group patient advocacy

Patient advocacy groups are primarily concerned with educating the public, influencing public policy, advancing scientific discovery, and enhancing patient care. Patient advocacy organizations should be concerned with enhancing healthcare personnel's capacity to provide patients with effective treatment, given the negative consequences of burnout on patient-centred outcomes. In conclusion, everyone needs to collaborate to create healthy working conditions in the intensive care unit (ICU), which will ultimately & most importantly, improve the level of care given to patients.

References

1. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol* 2001; 52:397-422.
2. Bakker A, Schaufeli W, Van Dierendonck D, Houtman ILD, Schaufeli WB, Taris T. Burnout: prevalentie, risicogroepen en risicofactoren. [Burnout: prevalence, risk-groups and risk-factors]. *Psychische vermoeidheiden werk: Cijfers, trends en analyses* Samsom, Alphen a/d Rijn, The Netherlands:2000;65-82.
3. Gazelle, G., Liebschutz, J. M., & Riess, H. (2015). Physician burnout: coaching a way out. *Journal of general internal medicine*, 30(4), 508-513.
4. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Moutier C, Szydlo DW, Novotny PJ, Sloan JA. Burnout and suicidal ideation among US medical students. *Annals of internal medicine*. 2008 Sep 2;149(5):334-41.
5. West CP, Shanafelt TD, Kolars JC. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. *Jama*. 2011 Sep 7;306(9):952-60.
6. Shanafelt TD, Balch CM, Bechamps GJ, Russell T, Dyrbye L, Satele D, Collicott P, Novotny PJ, Sloan J, Freischlag JA. Burnout and career

- satisfaction among American surgeons. *Annals of surgery*. 2009 Sep 1;250(3):463-71.
7. Fahrenkopf AM, Sectish TC, Barger LK, Sharek PJ, Lewin D, Chiang VW, Edwards S, Wiedermann BL, Landrigan CP. Rates of medication errors among depressed and burnt out residents: prospective cohort study. *Bmj*. 2008 Feb 28;336(7642):488-91.
 8. Shanafelt TD, Mungo M, Schmitgen J, Storz KA, Reeves D, Hayes SN, Sloan JA, Swensen SJ, Buskirk SJ. Longitudinal study evaluating the association between physician burnout and changes in professional work effort. In *Mayo Clinic Proceedings* 2016 Apr 1 (Vol. 91, No. 4, pp. 422-431). Elsevier.
 9. Shanafelt TD, Balch CM, Dyrbye L, Bechamps G, Russell T, Satele D, Rummans T, Swartz K, Novotny PJ, Sloan J, Oreskovich MR. Special report: suicidal ideation among American surgeons. *Archives of surgery*. 2011 Jan 1;146(1):54-62.
 10. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *The lancet*. 2009 Nov 14;374(9702):1714-21.
 11. Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. *Curr Opin Crit Care* 2007;13:482-488.
 12. Poncet MC, Toullic P, Papazian L, Kentish-Barnes N, Timsit JF, Pochard F, Chevret S, Schlemmer B, Azoulay E. Burnout syndrome in critical care nursing staff. *Am J Respir Crit Care Med* 2007;175: 698-704.
 13. Mealer M, Jones J, Newman J, McFann KK, Rothbaum B, Moss M. The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: results of a national survey. *Int J Nurs Stud* 2012;49:292-299.
 14. Chlan LL. Burnout syndrome among critical care professionals: a cause for alarm. *Crit Care Alert* 2013;21:65-68.
 15. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annual review of psychology*. 2001;52:397-422.
 16. Mealer M, Burnham EL, Goode CJ, Rothbaum B, Moss M. The prevalence and impact of post traumatic stress disorder and burnout syndrome in nurses. *Depress Anxiety* 2009;26:1118-1126.
 17. Bakker AB, Le Blanc PM, Schaufeli WB. Burnout contagion among intensive care nurses. *J Adv Nurs* 2005;51:276-287.
 18. Garcia TT, Garcia PC, Molon ME, Piva JP, Tasker RC, Branco RG, Ferreira PE. Prevalence of burnout in pediatric intensivists: an observational comparison with general pediatricians. *Pediatr CritCare Med* 2014;15:e347-e353.
 19. Murji A, Gomez M, Knighton J, Fish JS. Emotional implications of working in a burn unit. *J Burn Care Res* 2006;27:8-13.
 20. Poncet MC, Toullic P, Papazian L, Kentish-Barnes N, Timsit JF, Pochard F, Chevret S, Schlemmer B, Azoulay E. Burnout syndrome in critical care nursing staff. *Am J Respir Crit Care Med* 2007;175: 698-704.
 21. Shanafelt TD. Enhancing meaning in work: a prescription for preventing physician burnout and promoting patient-centered care. *JAMA* 2009; 302:1338-1340
 22. Cañadas-De la Fuente GA, Vargas C, San Luis C, García I, Cañadas GR, De la Fuente EI. Risk factors and prevalence of burnout syndrome in the nursing profession. *Int J Nurs Stud* 2015;52:240-249.

23. Shanafelt TD, Sloan JA, Habermann TM. The well-being of physicians. *Am J Med* 2003;114:513–519.
24. Teixeira C, Ribeiro O, Fonseca AM, Carvalho AS. Burnout in intensive care units - a consideration of the possible prevalence and frequency of new risk factors: a descriptive correlational multicentre study. *BMC Anesthesiol* 2013;13:38.
25. Merlani P, Verdon M, Businger A, Domenighetti G, Pargger H, Ricou B; STRESII Group. Burnout in ICU caregivers: a multicenter study of factors associated to centers. *Am J Respir Crit Care Med* 2011;184:1140–1146.
26. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Moutier C, Szydlo DW, Novotny PJ, et al. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 2008;149:334–341.
27. Mealer ML, Shelton AL, Martin GS, Burnham EL, Odom SE, Moss M. The prevalence of post traumatic stress disorder is increased among intensive care unit nurses. *Proc Am Thorac Soc* 2006;3:A833.
28. Mealer M, Jones J. Posttraumatic stress disorder in the nursing population: a concept analysis. *Nurs Forum* 2013;48:279–288.
29. Jones CB. Revisiting nurse turnover costs: adjusting for inflation. *J Nurs Adm* 2008;38:11–18.
30. Waterman AD, Garbutt J, Hazel E, Dunagan WC, Levinson W, Fraser VJ, Gallagher TH. The emotional impact of medical errors on practicing physicians in the United States and Canada. *Jt Comm J Qual Patient Saf* 2007;33:467–476.
31. Ulrich BT, Lavandero R, Woods D, Early S. Critical care nurse work environments 2013: a status report. *Crit Care Nurse* 2014;34:64–79.
32. Von Rueden KT, Hinderer KA, McQuillan KA, Murray M, Logan T, Kramer B, Gilmore R, Friedmann E. Secondary traumatic stress in trauma nurses: prevalence and exposure, coping, and personal/environmental characteristics. *J Trauma Nurs* 2010;17: 191–200.
33. American Association of Critical-Care Nurses. AACN Standards for Establishing and Sustaining Healthy Work Environments: a journey to excellence, 2nd ed. Aliso Viejo, CA: American Association of Critical-Care Nurses; 2016.
34. Manojlovich M. Power and empowerment in nursing: looking backward to inform the future. *Online J Issues Nurs* 2007;12:2.
35. Buell JM. The resilient leader: mind, body and soul. *Healthc Exec* 2014; 29:10–12, 14–16, 18.
36. Dellinger RP, Levy MM, Rhodes A, Annane D, Gerlach H, Opal SM, Sevransky JE, Sprung CL, Douglas IS, Jaeschke R, et al.; Surviving Sepsis Campaign Guidelines Committee including the Pediatric Subgroup. Surviving sepsis campaign: international guidelines for management of severe sepsis and septic shock: 2012. *Crit Care Med* 2013;41:580–637.
37. Chuang CH, Tseng PC, Lin CY, Lin KH, Chen YY. Burnout in the intensive care unit professionals: a systematic review. *Medicine*. 2016 Dec;95(50).
38. Howell MD. Intensivist time allocation: economic and ethical issues surrounding how intensivists use their time. In *Seminars in respiratory and critical care medicine* 2012 Aug (Vol. 33, No. 04, pp. 401–412). Thieme Medical Publishers.
39. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *The lancet*. 2009 Nov 14;374(9702):1714–21.

40. Arnawa, I.K., Sapanca, P.L.Y., Martini, L.K.B., Udayana, I.G.B., Suryasa, W. (2019). Food security program towards community food consumption. *Journal of Advanced Research in Dynamical and Control Systems*, 11(2), 1198-1210.
41. Widjaja, G. (2021). Impact of human resource management on health workers during pandemics COVID-19: systematic review. *International Journal of Health & Medical Sciences*, 4(1), 61-68. <https://doi.org/10.31295/ijhms.v4n1.850>