



Published in final edited form as:

J Emerg Nurs. 2020 September ; 46(5): 557–559. doi:10.1016/j.jen.2020.05.009.

Invited Commentary: Tackling Burnout with Team Science: Nursing and Physician Collaborations on improving psychological well-being amongst Emergency Providers

Bernard P. Chang, MD PhD¹, Kenrick Cato, PhD, RN^{1,2}

¹Department of Emergency Medicine, Columbia University Irving Medical Center

²School of Nursing, Columbia University

Invited Commentary

Emergency Medicine has historically been one of the medical specialties with the highest rates of provider burnout for both physicians and nurses.^{1, 2} While there has been an explosion of interest in burnout and wellness initiatives within Emergency Medicine,^{3, 4} previous editorials or society statements have conceptualized burnout from the perspective of the individual provider or specialist. Taking a page from the adage that no individual is an island, acute care providers work intimately together as a team, working in a common environment, where they are exposed to similar occupational stressors that may adversely impact both nurses and physicians. Given the broad effects of such stressors, an interdisciplinary approach to burnout science may be ideal, drawing on the unique contributions and synergies of emergency frontline nurses and physicians, along with researchers, administrators and informatics experts.

Prolonged exposure to stressful environments has been associated with the development of adverse psychological outcomes, including the development of burnout.⁵⁻⁷ *Burnout* is characterized by emotional exhaustion, physical fatigue, and cognitive weariness, which may lead to feelings of depersonalization and reduced accomplishment.⁸ Nearly half of the nearly 900,000 practicing physicians in the US report symptoms of burnout, with emergency physicians reporting the highest rates of burnout.⁷ Similarly, two recent systematic reviews on burnout in emergency nurses also found high rates of nurse burnout (e.g. 31%).^{2, 5} Alarming, these elevated rates of burnout are seen even among early career clinicians and trainees, suggesting that the impact of burnout is significant even to early career individuals.⁹

The negative impact of burnout on clinicians is broad, including increased risk for depression, anxiety, and substance abuse amongst nurses and physicians.¹⁰⁻¹² Burnout has also been associated with poorer delivery of medical care, including clinician-reported patient care, less empathetic communication, job absenteeism and increased medical errors.^{13, 14} The combined impact on patients interacting with burned out physicians practicing in

Conflicts of interest: Neither BC or KC have any conflicts of interest or disclosures to disclose for this commentary

highly stressful acute care environments - represents a near perfect storm leading to dissatisfaction and risk of poorer outcomes.¹⁵

While a recent systematic review of interventions for physician burnout concluded that institutional interventions were most effective, none focused on burnout in acute care providers, as well as a core clinical partner in the ED (e.g. nurses).¹⁶ An understanding of both the unique and common variables associated with nursing and physician burnout would shed new light on the development and management of clinician well-being. The impact of burnout at both the individual and team level on effective team dynamics is a vital aspect of efficient and effective patient care delivery but has been understudied to date. This may be explored in numerous ways integrating nursing and physician scientists. Nurses and physicians are key partners in the acute management and stabilization of patients in the Emergency Department (ED), with shared environmental stressors and risk factors for the development of burnout.¹⁷ Furthermore, the unique dynamic of the nurse-physician relationship in the ED, may interact with clinician burnout, while also having immediate and more sustained effects on patient care. For example, emergency nurses and physicians report high degrees of documentation burden.¹⁸ The impact of this documentation load on individual provider performance and its downstream effects on nurse-physician or clinician-patient communication may have important implications for patient care. Additionally, approaching the potential impact that physician and/or nursing cognitive load may have on both patient care as well as the interactions with their clinical colleagues, may build a more comprehensive model of acute/chronic stress in the acute care environment, leading to the identification of common themes or potential modifiable targets of intervention.

A collaborative research agenda involving key nursing and physician stakeholders should be based on a non-hierarchical approach, open to exploring the pathophysiology and associates of burnout from both clinical perspectives. The partnership between nurses and physician scientists should be fully integrated, with each team member's perspective equally valued, starting from study conceptualization, to manuscript dissemination. Diverse key personnel teams on funded projects should include core nursing and physician representation on grant budget justification to recognize the efforts of both teams. Additionally, involvement from not just nursing and physician scientists but also other frontline clinical disciplines would help shed unique insight from the perspective of the practicing clinician. Support for these endeavors should foster the creation of both early state nursing/physician investigators, as well as mentors to help encourage such dynamic nursing-physician team projects. Many academic professional societies encourage the growth of these interdisciplinary approaches. For example, The Society of Academic Emergency Medicine (SAEM), has a basic research methods and study design, the Advanced Research Methodology Evaluation and Design "ARMED" course, that specifically targets early career nursing and physician investigators.

There could be multiple unique themes on a nursing-physician led burnout research initiative, including efforts to enhance nursing-physician communication, assessments of the impact of environmental factors such as patient acuity, load, and complexity, to occupational patterns such as shift work pattern and length. Computational approaches to understanding the cognitive and physiological stress associated with acute care work, could leverage novel methods in informatics and machine learning to assess broader models of how such variables

interact and influence the development of any clinician based or patient facing outcomes. Future interventions for acute care providers could include work cycles/schedules that optimize staffing models to adjust for real time changes in factors such as crowding, which may simultaneously improve clinician well-being, patient outcomes, and even healthcare costs. Other hospital models designed to enhance the work-flow environment, such as use of scribes, seamless voice recognition, or overlapping clinical shifts should focus not just on implications for clinical productivity, but also on their implications on nurse-physician team dynamics and clinician well-being. Dynamic clinical scheduling, may be informed by large data set/informatic approaches which may provide unique information about optimized work schedules to maintain clinical vigilance and provider well-being. A key aspect of patient care rests on nurse-physician communication. Future interdisciplinary work bridging the unique expertise of nursing and physician scientists would permit novel insight into optimizing communication strategies between providers to improve patient care. Ideally, the fruits of this work would guide institutions toward tailored interventions to offset risk in patients, clinicians, and staff, all of whom are daily exposed to potentially harmful conditions.

Like an engine running constantly to pull a heavy load up a steep mountain, emergency nurses and physicians working in a work environment besieged by acute stressors may feel ineffectual, overwhelmed, and “burnt out”. A multi-disciplinary approach to studying this challenge is critical, and interventions will likely require investment from multiple components of the healthcare system. Ultimately, the adoption of such a research approach integrating nursing and physician patterns, may improve not only provider well-being and career longevity, but also optimize patient care and hospital outcomes.

References

1. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Archives of internal medicine*. 2012;172:1377–1385. [PubMed: 22911330]
2. Gómez-Urquiza JL, De la Fuente-Solana EI, Albendín-García L, Vargas-Pecino C, Ortega-Campos EM, Cañadas-De la Fuente GA. Prevalence of burnout syndrome in emergency nurses: A meta-analysis. *Critical care nurse*. 2017;37:e1–e9.
3. Chang B, Gallos G, Wasson L, Edmondson D. The Unique Environmental Influences of Acute Care Settings on Patient and Physician Well-Being: A Call to Action. *The Journal of emergency medicine*. 2018;54:e19. [PubMed: 29329636]
4. Moss M, Good VS, Gozal D, Kleinpell R, Sessler CN. An official critical care societies collaborative statement: burnout syndrome in critical care health care professionals: a call for action. *American Journal of Critical Care*. 2016;25:368–376. [PubMed: 27369038]
5. Adriaenssens J, De Gucht V, Maes S. Determinants and prevalence of burnout in emergency nurses: a systematic review of 25 years of research. *International journal of nursing studies*. 2015;52:649–661. [PubMed: 25468279]
6. Potter C To what extent do nurses and physicians working within the emergency department experience burnout: A review of the literature. *Australasian Emergency Nursing Journal*. 2006;9:57–64.
7. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med*. 2012;172:1377–1385. [PubMed: 22911330]
8. Maslach C, Jackson SE, Leiter MP, Schaufeli WB, Schwab RL. *Maslach burnout inventory*: Consulting psychologists press Palo Alto, CA; 1986.

9. Kimo Takayesu J, Ramoska EA, Clark TR, et al. Factors associated with burnout during emergency medicine residency. *Academic Emergency Medicine*. 2014;21:1031–1035. [PubMed: 25269584]
10. Glass DC, McKnight JD, Valdimarsdottir H. Depression, burnout, and perceptions of control in hospital nurses. *Journal of consulting and clinical Psychology*. 1993;61:147. [PubMed: 8450100]
11. Brown SD, Goske MJ, Johnson CM. Beyond substance abuse: stress, burnout, and depression as causes of physician impairment and disruptive behavior. *Journal of the American College of Radiology*. 2009;6:479–485. [PubMed: 19560063]
12. Sundquist K, Chang BP, Parsons F, Dalrymple N, Edmondson D, Sumner JA. Treatment rates for PTSD and depression in recently hospitalized cardiac patients. *Journal of psychosomatic research*. 2016;86:60–62. [PubMed: 27302548]
13. Chang BP, Carter E, Ng N, Flynn C, Tan T. Association of clinician burnout and perceived clinician-patient communication. *The American journal of emergency medicine*. 2018;36:156–158. [PubMed: 28711276]
14. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Annals of surgery*. 2010;251:995–1000. [PubMed: 19934755]
15. Chang B Can hospitalization be hazardous to your health? A nosocomial based stress model for hospitalization. *General hospital psychiatry*. 2019;60:83. [PubMed: 31376645]
16. Panagioti M, Panagopoulou E, Bower P, et al. Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis. *JAMA Internal Medicine*. 2016.
17. Healy S, Tyrrell M. Stress in emergency departments: experiences of nurses and doctors. *Emergency nurse*. 2011;19.
18. Neri P, Redden L, Poole S, et al. Emergency Medicine Resident Physicians' Perceptions of Electronic Documentation and Workflow. *Applied clinical informatics*. 2015;6:27–41. [PubMed: 25848411]