Feature Editor: Colette C. Mull, MD

A Call to Restore Your Calling
Self-care of the Emergency Physician in the Face of Life-Changing Stress—Part 1 of 6

Colette C. Mull, MD, Amy D. Thompson, MD,* Steven M. Selbst, MD,* Elissa G. Miller, MD,† David I. Rappaport, MD,‡ J. Carlton Gartner Jr, MD,‡ and Wesley R. Bowman, PhD§*

Abstract: Few practicing emergency physicians will avoid life-changing stressors such as a medical error, personal illness, malpractice litigation, or death of a patient. Many will be unprepared for the toll they will take on their lives. Some may ultimately experience burnout, post-traumatic stress disorder, and suicidal ideation. Medical education, continuing education, and maintenance of certification programs do not teach physicians to recognize helplessness, moral distress, or maladaptive coping mechanisms in themselves. Academic physicians receive little instruction on how to teach trainees and medical students the art of thriving through life-changing stressors in their career paths. Most importantly, handling a life-changing stressor is that much more overwhelming today, as physicians struggle to meet the daily challenge of providing the best patient care in a business-modeled health care environment where profit-driven performance measures (eg, productivity tracking, patient reviews) can conflict with the quality of medical care they wish to provide.

Using personal vignettes and with a focus on the emergency department setting, this 6-article series examines the impact life-changing stressors have on physicians, trainees, and medical students. The authors identify internal constraints that inhibit healthy coping and tools for individuals, training programs, and health care organizations to consider adopting, as they seek to increase physician satisfaction and retention. The reader will learn to recognize physician distress and acquire strategies for self-care and peer support. The series will highlight the concept that professional fulfillment requires ongoing attention and is a work in progress.

Key Words: patient death, emotional debriefing, debriefing, life-changing stressor

(*Pediatr Emer Care* 2019;35: 319–322)

This first article in our 6-article series examines the impact of the death of a patient on physicians, resident physicians (residents), and medical students (students). It reviews coping strategies and tools for academic physicians to use as they guide their residents and students through the challenge of patient death (PD).

MY STORY

Several years ago, a 3-year-old boy, Gabriel, presented with a seizure on my overnight emergency department (ED) shift. My team and I tried to stop his seizure using the usual antiepileptic medications, but we were unsuccessful. Eventually, Gabriel suffered respiratory depression, and when profuse vomiting prevented me from intubating his trachea, he suffered cardiac arrest. After a prolonged period of hypoxia and with some difficulty, a member of the anesthesia team successfully secured his airway; we recovered a heart rate, and we transferred Gabriel to the critical care unit. On leaving the ED, his parents seemed to have a good understanding of what had transpired and thanked us profusely for saving their child's life. Several days later, it was determined that Gabriel had little brain function and his parents decided to discontinue his ventilator support.

Eighteen months later, I was informed that a critical care colleague had left Gabriel's parents with the impression that the care provided in the ED was responsible for his death. For the next 6 months, the case was reviewed by hospital administrators, supervisors, lawyers, and external experts. It was finally determined that there was nothing I could have done differently to save this child's life.

Two years later, through mediation, the hospital and Gabriel's parents agreed on a financial settlement. Those 6 months of scrutiny were painful, but the agony that followed made those months look easy. I began to relive the resuscitation in my mind. Flashbacks would wake me up in the morning and prevent me from falling asleep at night. I racked my brain about ways I could have prevented this boy's death. I thought of quitting my job, quitting medicine, and quitting life. I cried frequently and felt detached from family, colleagues, and patients. Devastated and embarrassed, I was angry at my critical care colleague. I was irritable and reactive in my interactions with people. I felt chest pain anytime I was called to a resuscitation, experiencing a flooding of negative thoughts about my performance before, during, and after. My self-confidence plummeted. There seemed to be no end in sight to my suffering.

IMPACT OF PATIENT DEATH

Physician stress manifests in an individualized amalgam of emotional, physical, and behavioral reactions.[1] In the wake of PD, academic emergency physicians (EPs) most commonly experience insomnia, fatigue, nausea, sadness, and attending disappointment.[2] Research has largely focused on the impact of expected deaths and less so on physicians' reactions to unexpected deaths, such as is often seen in the ED setting. Some researchers have found no association between reaction intensity and seniority or self-identified gender; others have found that interns and female physicians require more emotional support than other physicians.[1–3] Factors found to intensify the reaction to PD include longer/closer relationship with the patient, personal experience with loss, identification with the patient and/or family, sense of responsibility for the death, and religious or cultural upbringing.[3–6] The literature on the impact of PD on emergency medicine (EM) attending physicians (attendings) and residents centers less on reactions to single PDs and more on the consequences of the EP's daily and unrelenting

From the *Division of Emergency Medicine, †Division of Palliative Care, and ‡Division of General Pediatrics, Department of Pediatrics, Nemours/Alfred I. duPont Hospital for Children, Sidney Kimmel Medical College, Thomas Jefferson University; and §Employee Assistance Program, Nemours/Alfred I. duPont Hospital for Children, Wilmington, DE.

Disclosure: The authors declare no conflict of interest.

Reprints: Colette C. Mull, MD, Division of Emergency Medicine, Department of Pediatrics, Nemours/Alfred I. duPont Hospital for Children, Sidney Kimmel Medical College, Thomas Jefferson University, 1600 Rockland Rd, Wilmington, DE 19803 (e-mail: cmull@nemours.org).

ISSN: 0749-5161

exposure to severe illness, trauma, violence, and death. Among these consequences, studies have focused on self-reported suboptimal patient care, burnout, depression, and post-traumatic stress disorder (PTSD).[7–11]

Compared with attendings, residents experience heightened feelings of shock, guilt, incompetence, and helplessness,[4,5] especially in the setting of unexpected deaths, deaths of children, deaths from trauma, and deaths early in training.[4] Stress development was measured prospectively in a cohort of residents over a 3-year period and then 10 years later, when they were attendings in practice. Emotional distress experienced as a resident persisted after training and was associated with future burnout.[12]

Students struggle significantly with PD,[6,13,14] especially their first PD,[6,15] the death of a child,[6,14] deaths secondary to medical error,[6,14] and those in which they felt close to the family of the dying patient.[6,14] Whereas physicians tend to regard PD as a personal failure, students typically do not, unless human error was obviously involved.[14] In the unique dynamic work environment of the ED, deaths can be sudden, traumatic, and occur in the young and previously healthy. Often, the care team must return to work soon after a patient dies. These factors contribute to students experiencing surprise and shock after a PD more often than sadness and grief.[6]

COPING WITH PATIENT DEATH

In Strote et al's[2] survey study, EPs most commonly used work (61%) and conversations with colleagues (78%), or friends and family (69%), as a way of coping with PD.[2] Formal debriefing was rarely or never used (64%). Other physicians report using positive reframing, time alone, time socializing, and work as coping tools.[1,3,4] Notably, these strategies seem to be implemented by the individual physicians rather than by their home institution.

The most common institutional response to critical events is formal debriefing. In general, there are 2 types of debriefing: intellectual and emotional. Anecdotally, in academic EDs and critical care units, intellectual debriefing, a critical medical review of the case, is practiced more often than emotional debriefing (eDEB), the latter focusing on the effects of the event on the clinicians involved.

Some believe that eDEB allows medical providers "to work together after a challenging event to identify, reflect, organize, discuss thoughts and emotions, share perspectives, provide support and decrease preoccupation with the event in a psychologically safe space."[16–22] Cited benefits include event processing, prevention of burnout, and enhancement of resilience.[15,23,24] Even in the form of a simple conversation with an attending, residents report that these interactions improve teamwork, decrease associated stress, refresh their compassion for others, and encourage self-care.[4,24–26] Although residents specifically appreciate attending physician leadership in eDEB,[3,26] most residents find it inappropriate to seek and/or do not seek support from their attendings.[3,4] Serwint et al[5] assert that residency leadership must deliberately facilitate residents' mourning of a PD. Examples include providing time for a resident to attend a funeral and/or to meet with a health care profession to discuss related emotions.[5] Osta et al[19] identify institutional culture, lack of trained facilitators, and perception of inadequate time as obstacles to the implementation of eDEB in residency. They explain that the quality of a debriefing relies heavily on the debriefing leader's professional training in eDEB, that participants need an opt-out choice, and that eDEB should be offered as part of a diverse array of mental health or spiritual resources.[19] Their review offers a critical examination of facilitator training of senior trainees and eDEB formats.[19]

Citing 2 meta-analyses (2002) and a 2012 literature review, critics of eDEB assert that it is ineffective at preventing and may even lead to the development of PTSD.[27–29] The 2002 *Cochrane Review* firmly states: "Compulsory debriefing of victims of trauma should cease."[27] United Kingdom's health care leadership recommends eliminating debriefings.[27]

Debriefings are infrequently practiced in academic EDs.[30] There is a paucity of data addressing the use of eDEBs in EDs. Some liken working in an ED to working in a combat zone: risking self to save patients, observing first-hand violence and suffering, and losing patients despite providers' beliefs that they should be able to save all.[9,31] Murray and Gidwani[31] opine that EM providers, much like combat staff, are uniquely more at risk of moral injury and moral injury cannot be prevented or healed with debriefing or building of resilience. Others look to prehospital literature for how best to cope in the aftermath of an ED PD. Although some prehospital providers benefit from compulsory postcritical incident downtime, others, including ED staff, may be best served by a *"screen and treat"* model.[27,32] There is accumulating evidence that cognitive behavior therapy, started as early as 11 to 24 hours after a traumatic event, can reduce the severity of a layperson's depression and PTSD and, in some, prevent the development of PTSD.[33] Currently, researchers in psychology, psychiatry, and EM are collaborating on the development of early interventions in the prevention of PTSD. Vanyo and colleagues[34] are trialing process groups, in which residents and psychiatrists meet on a regular basis to discuss stressors and coping skills.[34] It is important to note that much of the literature on eDEB centers on prevention and treatment of PTSD in traumatized patients and findings may not be generalizable to medical providers.

TEACHING COPING SKILLS

Smith-Han et al[35] describe 3 stages a student navigates as their reaction to PD matures: negotiating a tension between emotional concern and professional detachment,[15] adoption of traditional physician coping mechanisms (eg, talking to family, friends, and peers, sublimation into their work),[35] and, last, viewing the role of a physician as caring for (and not curing) patients.[35] The challenges of maturation are mitigated by PD debriefings, attending/resident role modeling, and peer support.[15] Compared with preclinical end-of-life education, students assign greater value to the behaviors and attitudes modeled in real time by their patient care team,[36,37] specifically the team's respect, empathy, and tolerance in helping the student cope with a PD.[14,36,37] Unfortunately, post-PD processing is the exception rather than the rule.[6,13,37] Rhodes-Kropf et al[13] found that, in 63% of PDs, there was no postdeath discussion with the assigned third-year student. Many suggest that faculty development in the area of the hidden curriculum needs to be openly articulated.[15,36] Attendings should purposefully teach and model how to be a doctor when your patient dies.[15,36] Attending-student debriefing allows students to progress from *"knowing about* to *working with"* PD.[35] Suggestions for medical school curriculum improvements include moving end-of-life training to the clinical years, adding multidisciplinary features, and urging attendings to create teachable moments for students during the actual care of a dying patient.[36,37]

CONCLUSION TO MY STORY

I asked my husband, a physician himself, if he thought I should quit medicine. He said he thought I should, that he did not see how I was going to get over this otherwise. I had begun seeing a mental health professional who also, after some time, told me that quitting medicine would not be a bad idea. And yet, I really did not want to give up on myself, felt it would be admitting that I was incompetent, and I knew I was not. I recognized the feeling of burnout and realized that I could turn things around for myself.

So, I persisted in my work but made some changes that allowed me to feel more confident in my skills. I completed a difficult airway refresher course, recrafted my own lecture on airway skills, and decided to reduce my clinical hours. With the advice and support of a colleague, I completed a course in Mindfulness-Based Stress Reduction. I began running and lost 20 lbs of unhealthy weight in 1 year. Finally, I decided that it was time to openly discuss the topic of physician stress and burnout; it became my academic niche. I find peers and trainees with similar experiences, self-shamed into silence and unneeded suffering. I hope that my story will raise your awareness of physician distress and the need for self-care in yourself, your colleagues, and trainees.

SUMMARY

Attendings, residents, and students are poorly equipped to process PD. Responses to PD vary by provider and consist of emotional, physical, and/or behavioral signs and symptoms of stress. An important and healthy coping strategy after a PD is sharing one's feeling with peers, friends, and family. Peer support will be discussed later in this series. Debriefing in the traumatized layperson has been shown to be ineffective and possibly dangerous with regard to the development of PTSD. A small body of literature affirms that eDEB may be useful to some residents after PD but should be only one of many support services offered. Attendings are responsible for providing guidance and support to residents and students as they cope with PDs. They must acknowledge the PD, encourage an open conversation with the learner, and introduce and model healthy coping strategies. Finally, processing PD in an ED remains challenging owing to the constraints of time. There is a dearth of ED provider–specific data on the effectiveness of eDEB after PD. Trials are underway looking at cognitive behavior therapy interventions, psychiatrist/psychologist-led educational modules and support sessions, and ED-embedded psychologists.

Please tune in for Article 2 of our 6-part series where authors share stories about thriving through medical error and malpractice litigation.

REFERENCES

1. Moores TS, Castle KL, Shaw KL, et al. Memorable patient deaths': reactions of hospital doctors and their need for support. *Med Educ*. 2007; 41:942–946.
2. Strote J, Schroeder E, Lemos J, et al. Academic emergency physicians' experiences with patient death. *Acad Emerg Med*. 2011;18:255–260.
3. Redinbaugh EM, Sullivan AM, Block SD, et al. Doctors' emotional reactions to recent death of a patient: cross-sectional study of hospital doctors. *BMJ*. 2003;327:185.
4. Jackson VA, Sullivan AM, Gadmer NM, et al. "It was haunting…": physicians' descriptions of emotionally powerful patient deaths. *Acad Med*. 2005;80:648–656.
5. Serwint JR, Rutherford LE, Hutton N. Personal and professional experiences of pediatric residents concerning death. *J Palliat Med*. 2006; 9:70–81.
6. Batley NJ, Bakhti R, Chami A, et al. The effect of patient death on medical students in the emergency department. *BMC Med Educ*. 2017;17:110.
7. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
8. Mills LD, Mills TJ. Symptoms of post-traumatic stress disorder among emergency medicine residents. *J Emerg Med*. 2005;28:1–4.
9. Vanyo L, Sorge R, Chen A, et al. Posttraumatic stress disorder in emergency medicine residents. *Ann Emerg Med*. 2017;70:898–903.
10. Roden-Foreman JW, Bennett MM, Rainey EE, et al. Secondary traumatic stress in emergency medicine clinicians. *Cogn Behav Ther*. 2017;46: 522–532.
11. Lu DW, Dresden S, McCloskey C, et al. Impact of burnout on self-reported patient care among emergency physicians. *West J Emerg Med*. 2015;16: 996–1001.
12. Raimo J, LaVine S, Spielmann K, et al. The correlation of stress in residency with future stress and burnout: A 10-year prospective cohort study. *J Grad Med Educ*. 2018;10:524–531.
13. Rhodes-Kropf J, Carmody SS, Seltzer D, et al. "This is just too awful; I just can't believe I experienced that…": medical students' reactions to their "most memorable" patient death. *Acad Med*. 2005;80:634–640.
14. Pessagno R, Foot CE, Aponte R. Dealing with death: medical students' experiences with patient loss. *Omega (Westport)*. 2013–2014;68:207–228.
15. Kelly E, Nisker J. Medical students' first clinical experiences of death. *Med Educ*. 2010;44:421–428.
16. Balch CM, Shanafelt TD. Combating stress and burnout in surgical practice: a review. *Adv Surg*. 2010;44:29–47.
17. Montgomery A. The inevitability of physician burnout: implications for interventions. *Burn Res*. 2014;1:50–56.
18. Baer TE, Feraco AM, Tuysuzoglu Sagalowsky S, et al. Pediatric resident burnout and attitudes toward patients. *Pediatrics*. 2017; 139:e20162163.
19. Osta AD, King MA, Serwint MD. Implementing emotional debriefing in pediatric clinical education. *Acad Pediatr*. doi: 10.1016/j.acap.2018.10.003. Available at: https://www.academicpedsjnl.net/article/S1876-2859(18)30728-9/fulltext. Accessed December 2, 2018.
20. Mitchell JT, Everly GS. *Critical Incident Stress Debriefing (CISD): An Operations Manual for CISD, Defusing and Other Group Crisis Intervention Services*. 3rd ed. Ellicott City, MD: Chevron; 2001.
21. Granek L, Bartels U, Barrera M, et al. Challenges faced by pediatric oncology fellows when patients die during their training. *J Oncol Pract*. 2015;11:e182–e189.
22. Pettker CM. Systematic approaches to adverse events in obstetrics. Part II. Event analysis and response. *Semin Perinatol*. 2017;41:156–160.
23. Colville GA, Smith JG, Brierley J, et al. Coping with staff burnout and work-related posttraumatic stress in intensive care. *Pediatr Crit Care Med*. 2017;18:e267–e273.
24. Bateman ST, Dixon R, Trozzi M. The wrap-up: a unique forum to support pediatric residents when faced with the death of a child. *J Palliat Med*. 2012;15:1329–1334.
25. Serwint JR. One method of coping: resident debriefing after the death of a patient. *J Pediatr*. 2004;145:229–234.
26. Eng J, Schulman E, Jhanwar SM, et al. PD debriefing sessions to support residents' emotional reactions to patient deaths. *J Grad Med Educ*. 2015;7: 430–436.
27. Rose S, Bisson J, Churchill R, et al. Psychological debriefing for preventing post-traumatic stress disorder (PTSD). *Cochrane Database Syst Rev*. 2012;2:CD000560.
28. Van Emmerik AA, Kamphuis JH, Hulsbosch AM, et al. Single session debriefing after psychological trauma: a meta-analysis. *Lancet*. 2002; 360:766–771.
29. Kearns MC, Ressler KJ, Zatzick D, et al. Early interventions for PTSD: a review. *Depress Anxiety*. 2012;29:833–842.
30. Zinns LE, O'Connell KJ, Mullan PC, et al. National survey of pediatric emergency medicine fellows on debriefing after medical resuscitations. *Pediatr Emerg Care*. 2015;31:551–554.
31. Murray E, Gidwani S. Posttraumatic stress disorder in emergency medicine residents: a role for moral injury? [letter]. *Ann Emerg Med*. 2018;72: 322–323.

32. Halpern J, Maunder RG, Schwartz B, et al. Downtime after critical incidents in emergency medical technicians/paramedics. *Biomed Res Int*. 2014;2014:483140.

33. Birur B, Moore NC, Davis LL. An evidence-based review of early intervention and prevention of posttraumatic stress disorder. *Community Ment Health J*. 2017;53:183–201.

34. Vanyo L. In reply. *Ann Emerg Med*. 2018;71:541.

35. Smith-Han K, Martyn H, Barrett A, et al. That's not what you expect to do as a doctor, you know, you don't expect your patients to die. Death as a learning experience for undergraduate medical students. *BMC Med Educ*. 2016;16:108.

36. Ratanawongsa N, Teherani A, Hauer KE. Third-year medical students' experiences with dying patients during the internal medicine clerkship: a qualitative study of the informal curriculum. *Acad Med*. 2005;80:641–647.

37. Wear D. "Face-to-face with It": medical students' narratives about their end-of-life education. *Acad Med*. 2002;77:271–277.