

# Burnout in Anesthesiology

## *A Call to Action*

The health and dedication of physicians and other care providers is critical to the nation's healthcare system. Quality of care is dependent on an engaged, competent, compassionate, and cohesive team of providers working together to meet the needs of their patients. Unfortunately, increasing evidence suggests that the nation's physicians and nurses are experiencing epidemic levels of burnout, dissatisfaction, and work-related stress.<sup>1</sup> In a word, the providers are themselves sick.

The causes of this problem are not difficult to identify. Increasing productivity requirements, regulation and bureaucracy in combination with decreasing reimbursements, less time with patients, a rapidly expanding base of medical knowledge (requiring continuous training with no time allocated for this activity), and difficulty balancing personal and professional life because of excessive work hours and frequent night call are all contributing factors.<sup>1</sup> For those in academic practice, resident work-hour restrictions that have shifted work from residents to faculty and decreasing federal funding for research are additional sources of stress.<sup>2</sup>

Studies have demonstrated that although medical students enter their training with mental health profiles similar to their peers, substantial degrees of burnout and depression become evident early during the medical training process and crescendo during residency.<sup>3</sup> The arduous training process, during which residents have little control over their schedule, also fails to help future physicians develop the skills necessary to integrate their personal and professional responsibilities once they enter practice. The cost of training saddles future physicians with a significant amount of educational debt that encourages them to work long hours early in their career, perpetuating burnout acquired during training. Studies across nearly every specialty of medicine both in the United States and abroad suggest that 30%–50% of practicing physicians experience symptoms of burnout at any given point in time.<sup>4</sup>

Physician burnout has significant personal and professional consequences. Studies have found that burnout and dissatisfaction influence patient compliance,<sup>5</sup> patient satisfaction with their medical care,<sup>6,7</sup> and quality of care<sup>8,9</sup> with multiple studies suggesting burnout may contribute to medical errors.<sup>10–13</sup> On a personal level, burnout has been shown to relate to suicidal

ideation among both physicians and medical students and may contribute to other personal problems such as substance abuse and broken relationships.<sup>14,15</sup> Burnout is also associated with malpractice suits and turnover, which can create substantial cost to hospitals and practice groups.<sup>16</sup>

Against this backdrop, two articles in this issue of ANESTHESIOLOGY shed further insight into stress and burnout among anesthesiologists and perioperative care providers. In the first study, the authors conducted an evaluation of burnout among all members of a perioperative care team in a single surgical suite, including anesthesiologists, surgeons, nurse anesthetists, residents, and other perioperative personnel.<sup>17</sup> Consistent with studies in other areas of medicine, the investigators found that although burnout is an issue for all perioperative providers, its prevalence seems to be highest in physicians.<sup>18</sup> Burnout was also more common among younger physicians, including residents, a finding demonstrated throughout the literature.<sup>4,19</sup>

The second article evaluates the prevalence of burnout among anesthesia program directors using a similar strategy to the approach used in previous studies of program directors in the fields of obstetrics and gynecology,<sup>20</sup> ophthalmology,<sup>21</sup> and otolaryngology.<sup>22</sup> The participation rate was exceptionally high, providing a powerful insight into the experience of anesthesia program directors in the United States.<sup>23</sup> The median emotional exhaustion and depersonalization scores (two dimensions of burnout) of anesthesiology program directors in this study were among the highest ever recorded in any sample of physicians, although the abbreviated version of the Maslach Burnout Inventory used in this study makes comparisons to many studies difficult. Stress related to budgetary concerns, faculty retention, and accreditation/compliance issues associated with the residency program were among the largest sources of stress.<sup>23</sup> Independent of the number of years they had served as chairman, nearly half of U.S. anesthesiology program directors intended to step down in the next 1–2 yr. Such an exodus would translate into a massive loss of experience, expertise, and mentorship with

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potentially profound implications for future physicians training in anesthesiology.

These studies add to what is a discouraging picture of the effects that the training process and practice culture have on physicians. The medical school selection and training process are designed to assemble bright, talented, hardworking, and altruistic individuals and then augment and refine these traits with the intent of producing competent and compassionate physicians. As both studies in this issue demonstrate, however, many of these students are destined to become burned out and dissatisfied with their careers. The current studies also raise questions of whether burnout may be transmitted from one member of the care team to another (*e.g.*, individuals working in the same operative suite) or from program directors to trainees through modeled burnout and/or a culture of cynicism. It is particularly concerning that the individuals selected for leadership positions based on their talents and accomplishment seem to be rewarded with such an overwhelming workload and array of challenges that they rapidly vacate these positions. If this issue is not addressed, it will make it increasingly difficult to recruit highly qualified replacements to lead our training programs with potential repercussions for the quality of training for future generations of anesthesiologists.

The solutions for these problems are not simple. Although much has been written about personal strategies physicians can use to maintain balance and promote resilience,<sup>1,24–26</sup> the prevalence of burnout and the professional factors that are its origin suggest that organizational and policy changes are necessary. Studies evaluating system-level interventions (institutional, organizational, national)<sup>16,27</sup> designed to optimize workload, improve efficiency, reduce the administrative burden on physicians, and promote a culture of compassion, engagement, meaning, and support are desperately needed to reduce the negative consequences of burnout both for physicians and the patients they care for.

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## References

- Shanafelt T, Sloan J, Habermann T: The well-being of physicians. *Am J Med* 2003; 114:513–59
- Goitein L, Shanafelt TD, Nathens AB, Curtis JR: Effects of resident work hour limitations on faculty professional lives. *J Gen Intern Med* 2008; 23:1077–83
- Dyrbye LN, Thomas MR, Shanafelt TD: Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med* 2006; 81:354–73
- 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. *Ann Surg* 2009; 250:463–71
- DiMatteo MR, Sherbourne CD, Hays RD, Ordway L, Kravitz RL, McGlynn EA, Kaplan S, Rogers WH: Physicians' characteristics influence patients' adherence to medical treatment: Results from the Medical Outcomes Study. *Health Psychol* 1993; 12:93–102
- Linn LS, Brook RH, Clark VA, Davies AR, Fink A, Koscoff J: Physician and patient satisfaction as factors related to the organization of internal medicine group practices. *Med Care* 1985; 23:1171–8
- Haas JS, Cook EF, Puopolo AL, Burstin HR, Cleary PD, Brennan TA: Is the professional satisfaction of general internists associated with patient satisfaction? *J Gen Intern Med* 2000; 15:122–8
- Grol R, Mokkink H, Smits A, vanEijk J, Beek M, Mesker P, Mesker-Niessen J: Work satisfaction of general practitioners and the quality of patient care. *Fam Pract* 1985; 2:128–35
- Melville A: Job satisfaction in general practice: Implications for prescribing. *Soc Sci Med Med Psychol Med Sociol* 1980; 14A:495–9
- Shanafelt TD, Bradley KA, Wipf JE, Back AL: Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* 2002; 136:358–67
- West CP, Huschka MM, Novotny PJ, Sloan JA, Kolars JC, Habermann TM, Shanafelt TD: Association of perceived medical errors with resident distress and empathy: A prospective longitudinal study. *JAMA* 2006; 296:1071–8
- Shanafelt TD, Balch C, Bechamps G, Russell T, Dyrbye L, Satele D, Collicott P, Novotny PJ, Sloan J, Freischlag J: Burnout and medical errors among American surgeons. *Ann Surg* 2010; 251:1001–2
- Firth-Cozens J, Greenhalgh J: Doctors' perceptions of the links between stress and lowered clinical care. *Soc Sci Med* 1997; 44:1017–22
- Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Moutier C, Szydlo DW, Novotny PJ, Sloan JA, Shanafelt TD: Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 2008; 149:334–41
- Shanafelt TD, Balch C, Dyrbye LN, Bechamps G, Russell T, Satele D, Rummans T, Swartz K, Novotny PJ, Sloan J, Oreskovich MR: Suicidal ideation among American surgeons. *Arch Surg* 2010; (in press)
- Jones JW, Barge BN, Steffy BD, Fay LM, Kunz LK, Wuebker LJ: Stress and medical malpractice: Organizational risk assessment and intervention. *J Appl Psychol* 1988; 73:727–35
- Hyman S, Michaels DR, Berry JM, Schildcrout JS, Mercado ND, Weinger MB: Risk of burnout in perioperative clinicians: A survey study and literature review. *ANESTHESIOLOGY* 2011; 114:194–204
- Grunfeld E, Whelan TJ, Zitzelsberger L, Willan AR, Montesanto B, Evans WK: Cancer care workers in Ontario: Prevalence of burnout, job stress, and job satisfaction. *CMAJ* 2000; 163:166–9
- Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM, Leaning MS, Snashall DC, Timothy AR: Burnout and psychiatric disorder among cancer clinicians. *Br J Cancer* 1995; 71:1263–9
- Gabbe SG, Melville J, Mandel L, Walker E: Burnout in chairs of obstetrics and gynecology: Diagnosis, treatment, and prevention. *Am J Obstet Gynecol* 2002; 186:601–2
- Cruz OA, Pole CJ, Thomas SM: Burnout in chairs of academic departments of ophthalmology. *Ophthalmology* 2007; 114:2350–5
- Golub JS, Johns MM III, Weiss PS, Ramesh AK, Ossoff RH: Burnout in academic faculty of otolaryngology—Head and neck surgery. *Laryngoscope* 2008; 118:1951–6
- De Oliveira GS Jr, Ahmad S, Stock MC, Harter RL, Almeida MD, Fitzgerald PC, McCarthy RJ: High incidence of burnout in academic chairs of anesthesiology: Should we be taking better care of our leaders? *ANESTHESIOLOGY* 2011; 114:181–93
- Quill TE, Williamson PR: Healthy approaches to physician stress. *Arch Intern Med* 1990; 150:1857–61
- Shanafelt T, Chung H, White H, Lyckholm LJ: Shaping your career to maximize personal satisfaction in the practice of oncology. *J Clin Oncol* 2006; 24:4020–6
- Krasner MS, Epstein RM, Beckman H, Suchman AL, Chapman B, Mooney CJ, Quill TE: Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA* 2009; 302:1284–93
- Dunn PM, Arnetz BB, Christensen JF, Homer L: Meeting the imperative to improve physician well-being: Assessment of an innovative program. *J Gen Intern Med* 2007; 22:1544–52