



Self-care as a professional imperative: physician burnout, depression, and suicide

Prendre soin de soi, un impératif professionnel: l'épuisement professionnel, la dépression et le suicide chez les médecins

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Abstract

Purpose Burnout has been identified in approximately half of all practicing physicians, including anesthesiologists. In this narrative review, the relationship between burnout, depression, and suicide is explored, with particular attention to the anesthesiologist. Throughout this review, we highlight our professional imperative regarding this epidemic.

Source The authors searched the existing English language literature via PubMed from 1986 until present using the search terms physician burnout, depression, and suicide, with particular attention to studies regarding anesthesiologists and strategies to address these problems.

Principal findings Burnout and depression have increased among physicians, while the rate of suicide has remained relatively the same. There are many factors associated with burnout and depression as well as many causes. Certain individual factors include sex, amount of social support, and mental health history. Systems factors that play a role in burnout and depression include work compression, demands of electronic health records, production pressure, and lack of control over one's professional life. Medical license applications include questions that reinforce the stigma of psychological stresses and discourage physicians from seeking appropriate care.

Conclusion The concept of physician well-being is multidimensional and includes factors related to each physician as an individual as well as to the working

environment. Anesthesiologists must actively engage in self-care. Anesthesiology practices and healthcare organizations should evaluate the balance between demands they place on physicians and the resources provided to sustain an engaged, productive, and satisfied physician workforce. National efforts must be rallied to support physicians seeking help for physical and psychological health problems.

Résumé

Objectif On a constaté un épuisement professionnel chez près de la moitié des médecins en pratique, anesthésiologistes y compris. Dans ce compte rendu narratif, la relation entre l'épuisement professionnel, la dépression et le suicide est explorée, en portant une attention particulière à l'anesthésiologiste. Ce faisant, notre impératif professionnel quant à cette épidémie est précisé.

Source Les auteurs ont effectué une recherche dans la littérature de langue anglaise existante dans la banque de données PubMed de 1986 à nos jours à l'aide des termes suivants: physician burnout, depression et suicide (soit épuisement professionnel, dépression et suicide), en attachant une attention particulière aux études s'intéressant aux anesthésiologistes et aux stratégies employées pour gérer ces problèmes.

Constataions principales L'épuisement professionnel et la dépression sont en hausse parmi les médecins, alors que le taux de suicide demeure relativement stable. Les associations avec et les causes d'épuisement professionnel et de dépression sont nombreuses et comprennent des facteurs individuels tels que le sexe, l'étendue du soutien social et les antécédents de santé mentale. Parmi les facteurs systémiques qui jouent un rôle

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dans l'épuisement professionnel et la dépression, citons les compressions professionnelles, les exigences des dossiers médicaux électroniques, la pression de production et le manque de contrôle sur la vie professionnelle. Les formulaires de postulation pour la licence médicale comportent des questions qui renforcent le stigmatisation rattaché aux stress psychologiques et découragent les médecins de chercher des soins adaptés.

Conclusion *Le concept de bien-être du médecin est multidimensionnel et comprend des facteurs liés à chaque médecin en tant qu'individu, mais également à l'environnement de travail. Les anesthésiologistes doivent faire un effort pour prendre soin d'eux-mêmes. Les pratiques d'anesthésiologie et les organismes de soins de santé devraient évaluer l'équilibre entre les exigences qu'ils fixent aux médecins et les ressources à disposition pour soutenir une population de médecins engagés, productifs et satisfaits. Les efforts nationaux doivent être rassemblés afin de soutenir au mieux les médecins demandant de l'aide pour des problèmes de santé physique ou psychologique.*

In the past several years, tragedies such as the suicide deaths of two medical trainees in New York City, followed by reports of other physician suicides, have brought the topic of physician wellness to prominence in the lay press,¹⁻³ professional meetings, and the medical literature. As an example, the 2016 American Society of Anesthesiologists (ASA) annual meeting included 27 separate presentations related to physician well-being (https://www.asahq.org/annual_meeting/education/sessions). Most people pursue careers in medicine with a strong desire to help others, and they anticipate a fulfilling, satisfying career and life in return for the expense, effort, and delayed gratification associated with years of undergraduate and graduate medical education. The desired or anticipated outcomes for smart, motivated, altruistic physicians do not include loss of productivity, lack of enjoyment of a hard-sought career, disengagement with patient care, compromised patient safety, and ultimately depression and even suicide.

There is speculation and discussion about why these problems seem more pervasive now than in the past. Practicing anesthesiologists, anesthesiology residents, and fellows are faced with unprecedented changes in the work environment, with increasingly complex patients and rapid introduction of new technology and anesthetic techniques. Production pressure,⁴ work compression, and financial pressures⁵ are stressors for many. The widespread introduction of the electronic health record (EHR) is often blamed for increasing the burden of clinical

documentation and decreasing the amount of time for personal conversation and connection with patients and families.⁶ Many physicians think there are fewer opportunities to derive meaning from their work or to savour the patient-doctor relationship that historically was a privilege of medicine. Additionally, work demands may decrease the amount of time available for teaching medical students, residents, and fellows and may limit opportunities for self-learning, reflection, and continuing education.

Definitions and incidence

The International Statistical Classification of Diseases and Related Health Problems (ICD-10) clinical definition of burnout is a state of vital exhaustion, part of a category of "problems related to life-management difficulty".⁷ Maslach *et al.* have described job burnout in terms of three components: emotional exhaustion, cynicism or depersonalization, and low personal accomplishment or efficiency.⁷ Personal capacities of energy, enthusiasm, engagement, efficiency, and accomplishment are important for optimal physician-patient relationships and the professional satisfaction of physicians. The presence of sustained burnout can undermine doctors' professional development and, left unchecked, can contribute to carelessness, lack of commitment, increased risk of error, and additional risks to patients.⁸⁻¹⁰ Burnout also impacts its victims personally, with a higher risk of alcohol abuse and dependence and an associated increased risk of suicidal ideation.^{11,12} In one study, medical students' increased debt from educational costs was associated with an increased risk of alcohol abuse and dependence.¹³ Approximately 50% of physicians in the United States report symptoms of burnout at some point in their career.^{11,12} In the general population, higher levels of education, including professional degrees, offer some protection from burnout, but a degree in medicine increases the risk.¹⁴ Dyrbye *et al.* studied medical students, trainees, and early career physicians and determined that work-related stress is a continuous feature of medical education and practice, but the types of stressors may change during the course of a career.¹⁴ In a study of approximately 1,500 anesthesiology residents, DeOliveira *et al.* found a risk of burnout in 41% of trainees. The predictors of burnout included female sex, more than 70 work hours per week, and consumption of more than five drinks of alcohol per week.⁸ A Canadian study of intern and resident well-being indicated that significant stressors, including financial debt, were present at a high level in a third of trainees, and that 18% of the trainees studied reported their mental health as either fair or poor.¹⁵ Physicians who report high levels of burnout report more medication errors than their counterparts with a lower risk of burnout.^{8,9,16,17}

Several studies have found that burnout is more prevalent in anesthesiologists than in other physicians.^{18–20} One influencing factor may be an increased emphasis on performance metrics, which directs attention toward the business elements of practice rather than to the interpersonal relational elements. The demands of constant vigilance and the acuity and significance of decision-making are other elements of anesthesiology practice that create stress for many individuals. Another element is the relative isolation with which most anesthesiologists work. The nature of the intraoperative environment and practice of anesthesiology makes it difficult for ongoing discussions, consultation, and collaboration. Staffing patterns do not include easy back-up plans and there is a culture of reluctance to ask for help. These factors can create situations in which anesthesiologists continue to work following a poor outcome or challenging case, rather than call a peer to allow time for debriefing, counselling, or recovery from the event. The isolated aspect of anesthesia residency training and practice decreases the ability to compare experiences and performance with colleagues, which can lead to inappropriate feelings of low self-esteem, and decreased confidence.²¹ These factors, plus easy access to drugs that can be diverted and abused, convey particular risk to practicing anesthesiologists and trainees. The topics of drug diversion and substance use disorder are beyond the scope of this article but are addressed elsewhere in this issue of the *Journal*. Such factors may confound the reporting and incidence of attempted and completed suicide in the anesthesiology community.

Depression is a disorder characterized by a change in mood and a loss of interest or pleasure in daily activities that is sustained over time. It is characterized by symptoms related to irritability, anhedonia, weight and appetite change, sleep disturbances, changes in activity, fatigue and loss of energy, feelings of guilt and worthlessness, problems in concentration, and when severe, suicidality.²² The risk of depression in the United States is higher in physicians than in a comparable lay population. A number of studies have characterized the incidence of depression and symptoms of depression in resident physicians.^{8,23,24} In a review and meta-analysis of studies describing the prevalence of depression and symptoms of depression in residency, Mata *et al.* found an overall incidence of 28.8%, with a range of 20.9–43.2%. It is notable that the prevalence increased significantly over the course of the first year of training and increased progressively with subsequent years. Rose and Brown have identified depression in anesthesiologists as another form of impairment deserving of the same amount of attention given to substance abuse disorder.²⁵

Suicide is the unfortunate final product of a complex interplay of individual health, behavioural health, and

environmental factors and is the tenth leading cause of death in the United States.²⁶ Suicide does not typically arise from burnout alone, but is more commonly associated with other mental illness, such as depression and bipolar disorder.²⁷ Nevertheless, episodes of suicidal ideation are known to occur in physicians who are suffering from significant stress, burnout, and depression. One study found that, in a general population, 34% of individuals with suicidal ideation develop a suicide plan, and at least 70% of those with a plan will attempt suicide.²⁸

Physicians have the remarkable (and unfortunate) distinction of more successful suicides than the general population. The risk of suicide and suicidal ideation increases in medical school but dramatically accelerates once trainees enter graduate medical education programs. One study reported an increase from approximately 4% during the pre-internship period to about 25% during the intern year.²⁹ Sen *et al.* showed that the frequency of suicidal ideation increased approximately fourfold in the first three months of the internship year.²⁹ Compared with the general population, the relative risk of completed suicide is 1.4 in male physicians and 2.3 in female physicians.³⁰ Although a tremendous amount of attention has been focused on the problems of depression and suicide during residency training, a notable period of significant stress, the actual rate of suicide is highest in physicians in late middle age.³¹ In addition to a higher percentage of attempted suicides, physicians also complete suicide at a higher rate than their lay counterparts,³¹ in part because of enhanced knowledge of toxicology and means of successful techniques for suicide.²⁸

Associations and causes of burnout and depression

Individual factors

Sex affects the experience of burnout. In males, the most common signs of burnout are depersonalization followed by emotional exhaustion and cynicism. Females are more likely to experience emotional exhaustion as the first sign of burnout, later experiencing depersonalization and cynicism and a decreased sense of accomplishment.³² A male's sense of personal accomplishment is less likely to diminish with burnout.³² As mentioned earlier, unlike the general population, the risk of suicide in female physicians is increased even more than the increased rate of suicide in male physicians compared with their lay peers.³⁰

Personal factors that increase the risk of depression and suicide in physicians include a personal or family history of mental health disorders, alcohol or substance abuse, the stress of problems with their families or friends, and most importantly, threats and stresses in their professional life.

Anesthesiologists have ready access in the workplace to drugs that can be used for suicide.³³ There is some evidence that indebtedness is also a risk factor for suicide.^{5,11}

The culture of medicine

Medical students learn cultural imperatives such as service, excellence, competence, and compassion.³⁴ These are important sources of pride for physicians, but each can become destructive if not balanced. Dedication and a sense of service—encompassed in the Hippocratic Oath—are the most compelling reasons that draw individuals to a career in medicine. Nevertheless, the personal sacrifices required to provide service can result in feelings of deprivation or victimization if the self-sacrifice is extreme. Physicians routinely deny personal needs such as sleep and food in the course of their training and work. Presenteeism, the practice of coming to work while sick, is a common problem in both residents and practicing physicians. This is an example of self-sacrifice that is potentially harmful to both patients and physicians themselves.^{35–37}

Medicine and anesthesiology are disciplines that uphold standards of excellence and often support a culture or credence for which there is zero tolerance for mistakes. Anesthesiologists' expectations often breed a sense of perfectionism and a desire for control, and if left unchecked, a lack of acceptance of the potential for error leads to an erroneous sense of invincibility. Fortunately, the specialty of anesthesiology has embraced the need for standards of care and disclosure of errors and the system factors creating them,^{38,39} but again, if left unchecked, a sense of perfectionism creates unrealistic demands on the anesthesiologist.

The development of competence is a fundamental element of physician training, and a sense of competence is expected upon completion of training and with board certification. Some medical students and residents manifest signs of imposter syndrome, i.e., they struggle to achieve a sense of competence but doubt their ability or competence despite excellent evaluations and test scores. Some individuals overcompensate for the internal distress of imposter syndrome by embracing a sense of omnipotence (Table 1).³⁴ Nevertheless, patient outcomes are not always

within a physician's control, and an unchecked sense of responsibility for patient outcomes can lead to inappropriate feelings of disappointment and shame.

Compassion includes empathy and the development of appropriate emotional boundaries with patients and families.³⁴ Medical students, trainees, and early career physicians witness a variety of tragedies and complex cases in the course of their work. It is imperative that physicians develop skills to maintain a sense of compassion in the face of suffering, while not suppressing their own emotions to the point of becoming emotionally isolated.

System factors

There is no question that the practice of medicine and anesthesiology is changing rapidly. This impacts the way anesthesiologists and anesthesiology trainees work and the opportunities for satisfaction that have historically been found in the practice of medicine.

The United States Accreditation Council for Graduate Medical Education (ACGME) implemented a series of work hour restrictions for residents, initially in 2003 and with modifications in 2011.^{40,41} These limitations were intended to decrease fatigue and enhance patient safety, but there have been mixed results regarding trainee satisfaction and patient safety.^{42,43} Similarly, although residents work fewer hours since the implementation of the duty hour rules, a decrease in the prevalence of burnout has not been identified. Additionally, work burden has shifted from trainees to faculty, increasing the risk of burnout at the practicing physician level. Health systems have varied in their approaches to duty hour restrictions. The unintentional phenomenon of work compression—i.e., the expectation that the same amount of work and learning will be accomplished in less time—is a result. These pressures reduce the amount of time available for teaching and learning, decreasing both faculty and trainee satisfaction in academic settings. The implementation of duty hour rules utilizing night float (i.e., several consecutive shifts of night work during which daytime physicians are relieved and the night float team covers patient workload) and other structures has resulted in increased fragmentation of healthcare. This has led to an increased number of patient handovers and a decreased sense of physician

Table 1 Interplay between cultural norms in medicine and burnout factors (adapted from Nedrow *et al.*)³⁴

Positive Value	Negative Potential	Burnout Factors
Service	Deprivation	Compassion fatigue, entitlement
Excellence	Invincibility	Emotional exhaustion
Competence	Omnipotence	Ineffectiveness, cynicism
Compassion	Isolation	Depersonalization

“ownership” of patients. This limits the opportunities for meaningful engagement with patients and families as well as teaching and learning opportunities.⁴⁴ Additionally, insufficient emphasis has been placed on adequate sleep hygiene and rest when trainees are not working. Trainees are expected to work a set schedule rather than maintain control of their own hours, usually expected in professional life. One study of medical interns reported that each intern spent less than eight minutes with each patient per day.⁴⁵ Only about 12% of total work time was spent in direct contact with patients, and 66% of the trainees’ time was spent in indirect patient care activities, such as placing and reviewing orders, communicating with other physicians, and writing and reading progress notes.⁴⁵

As mentioned earlier, increased attention on the business aspects of anesthesiology practice, including determination of metrics for first case on-time starts (FCOTS), turnover time (TOT), and increased demands for productivity and patient throughput, risks anesthesiologists’ self-perception as professionals rather than “workers”. Production pressure decreases the amount of time spent in meaningful conversations with patients, families, and learners and has the potential to jeopardize patient safety.⁴ This is particularly concerning, as patients requiring anesthesia care are increasingly more complicated with significant comorbidities, and the scope of anesthesia and surgical care is being expanded. The need to learn and adapt to the rapid expansion of technology and techniques in anesthesia care, such as Enhanced Recovery After Surgery techniques, echocardiography, ultrasound-guided techniques, and expansion of anesthesia practice into the perioperative surgical home model,^{46,47} creates additional pressure on faculty to do more and learn more in less time.^{46,48}

Another challenge that has arisen in the past several years is the widespread adoption of EHR systems, which has accelerated in the United States because of the Centers for Medicare and Medicaid Services “Meaningful Use” regulations.⁴⁹ Although the potential exists for EHRs—i.e., electronic formats of medical records and data intended to contain and share information from all providers involved in a patient’s care, across locations; distinct from electronic medical records, which are merely digital representations of historical patient documents—to improve efficiency, safety, and the quality of care, most physicians find that use of the EHR increases their clerical burden and has changed the nature of their interactions with patients (e.g., “doctoring while typing”, addressing patient concerns through web-based portals). A *RAND Health* review requested by the American Medical Association in 2013 characterized factors affecting physician satisfaction with EHRs. The authors found that, although EHRs facilitate some aspects of clinical care, in general, physician

satisfaction was worsened due to the mismatch of user interface with clinical workflow, information overload, and time-consuming documentation requirements formerly performed by lower-skilled workers. Practice finances were often jeopardized by the introduction of EHRs.⁴⁹ Physicians are spending more time with documentation and clerical tasks and less time in dialogue with patients.⁶ In one study, only about 30% of anesthesiologists were satisfied or very satisfied with the EHR, and about 55% were dissatisfied with their clinical clerical burden directly related to patient care.⁵⁰ The authors found a higher risk of burnout in physicians using EHRs, regardless of their satisfaction level with the EHR.⁵¹ Another study by Babbott *et al.* indicated that physicians using complex EHRs reported more time pressure in their clinical work, which was associated with significantly more burnout, dissatisfaction, and intention to leave the practice.⁵² It is unclear whether this is a transitional effect, as younger physicians seem to be more satisfied with the EHR.^{50,51} Finally, a recent commentary succinctly summarized the benefits and frustrations of the current state of the EHR and pointed out that, in its current form, the EHR is not fulfilling its potential to enhance physicians’ ability to synthesize important information, communicate effectively with and about patients, and clearly inform clinical decisions.⁵³

Strategies to enhance physician well-being

The concept of physician well-being is multidimensional and includes factors that relate to each physician as an individual as well as to the environment in which the physician works. A one-size-fits-all approach to such a complicated problem is unlikely to be successful. Instead, attention must be paid to the different components of well-being and the different types of stressors that medical students, residents, and physicians may encounter at various points in their career.¹⁴ Additionally, the best approaches to enhancing physician well-being must address self-care as a professional imperative, including physical and mental health. Historically, the intimation was that preservation of well-being was a personal individual matter and that physicians were responsible for their own resilience and well-being. This view ignores the impact of the learning and work environment on the satisfaction and performance of the employees and learners within it. Therefore, the likelihood of successful planning for physician well-being will be increased if its elements include attention to the physician as an individual, the stressors of the particular work setting (e.g., clinical unit or department), institutional approaches, and national policies and strategies addressing physician well-being.

Personal approaches

Fundamentally, it is important that physicians make a commitment to self-care. Physicians in training must learn skills to balance the competing professionalism demands of altruism and self-care. The work demands of physicians, including graduate medical education trainees and faculty or staff anesthesiologists, can make this difficult. Nevertheless, it is important that physicians avail themselves of the same care they prescribe for their patients. This includes appropriate attention to medical conditions, health maintenance activities (e.g., sleep), and non-postponement of essential diagnostic tests.^{54,55} Counselling and psychotherapy are proven to be effective for treatment of depression and other mental health disorders, including anxiety. As mentioned later in this article, physicians must overcome a number of obstacles besides busy clinical schedules in order to seek care. Some strategies to enhance resilience and prevent burnout are described below.

Cognitive behavioral therapy

Sen *et al.* at the University of Michigan have been conducting The Intern Study (<http://www.srijam-sen-lab.com>), which includes several components addressing the problems of burnout, depression, and suicidal ideation during internship.²⁹ Participants in the study complete online screening tests assessing their risk of depression, and they have access to a series of web-based cognitive behavioural therapy tools (wCBT). The same group is also investigating the genetics of depression and stress.⁵⁶ The wCBT program appears to be associated with decreased suicidal ideation in medical interns. Another preliminary study reported benefits of an internet-based self-compassion cultivation program for psychology trainees, including increased happiness and decreased depression and stress.⁵⁷ Both interventions offer the advantage of asynchronous administration, allowing physicians to access and use the modalities at their own pace and time.

Exercise

Physical exercise has beneficial effects on general health, allows for positive interactions with others, and has been shown to have salutary effects on depression. The group at Mayo Clinic found that trainees who participated in an organized exercise program had improved quality of life and burnout scores compared with a peer group that did not participate in the program.⁵⁸

Mindfulness training

There is some evidence that promotion of self-awareness and mindfulness training can positively impact the rate of

physician burnout, increasing doctors' well-being and the quality of their patient interactions.^{59,60} Other interventions that have been applied in a variety of settings are positive psychology exercises. Examples of these include positive visualization, recognition of appreciation and gratitude, and other exercises that can be conducted independently or in group settings. The efficacy of these interventions suggests that they can be effective for increasing feelings of happiness and decreasing depressive symptoms, and their effect can last longer than the intervention period.^{60,61}

Institution- and system-based strategies

The effects of thoughtfully planned system-level approaches are more likely to endure, particularly in conjunction with individual or personal approaches.⁶² Importantly, Shanafelt *et al.* showed that the attributes of frontline leaders can markedly impact the career satisfaction of physicians, including their likelihood of burnout.⁶³ The implication is that leaders should emulate desired wellness behaviour, leading by example. It is likely that the importance of relationships between leaders and employees is replicated in other situations, such as those between anesthesiology chairs and faculty, program directors and residents,¹⁸ and medical school leaders and students. Therefore, recognition of the problems of burnout and depression is critical for health system leaders. Strategies to enhance the learning environment are paramount in combatting the problems of burnout and depression in our health systems. A longitudinal study of one institution's physician workforce discovered that poor burnout and satisfaction scores were correlated with reductions in physician work effort over time, and that declining scores of emotional exhaustion or physician satisfaction predicted the likelihood that a physician would request reduced work hours or part-time status over the subsequent year.⁶⁴ Considering that there is a projected physician workforce shortage in the United States (and elsewhere),^{65,66} this is an important issue, as a resilient and satisfied workforce will be best equipped to care for patients. It is important for healthcare institutions to develop systems and resources to promote satisfied employees. The expenses and effort to address this issue can be offset by decreased costs in turnover and recruitment.^{67,68} The remainder of this section describes initiatives that have been implemented in some health systems to address the problem of physician burnout.

Enhancing physician professional development

Traditional resources that can positively impact physician satisfaction include providing local continuing medical education opportunities or funds to support these pursuits

outside the institution. This shows the importance of staying current in rapidly changing medical fields as well as the institution's commitment to ensure this important aspect of a physician's identity.

Screening tools for distress

The development of screening tools would be one possible method to identify physicians who are at risk of significant psychological distress. Dyrbye *et al.* have validated such tools in medical student, trainee, and physician populations.^{69,70} They have shown that these screening tools are reasonably sensitive and specific in stratifying mental quality-of-life scores, degrees of suicidal ideation, fatigue, and career satisfaction. The University of California at San Diego has developed a program to raise awareness of depression in physicians. The program includes screening tools for suicide prevention⁷¹ that can be used as self-assessments or as part of an established treatment or counselling plan. Implementation of these tools can identify physicians or trainees who might benefit from additional resources.

Support for physicians and the care team

Institutional holistic wellness programs

Many institutions have implemented holistic wellness programs to support their physicians and staff at times of severe stress, such as following an unexpected patient death.⁷² The term "Code Lavender" has been used in some institutions to describe these activities,⁷³ which mimic the terms "Code Red" for fire alerts and "Code Blue" for medical emergencies. Providers can call a Code Lavender, which brings support services to the providers who are experiencing severe stress. "Second victim" response groups have been implemented to help address the traumatic response that physicians and other healthcare workers experience after unexpected patient events or errors.^{74,75}

Additionally, other opportunities for debriefing and decompression, such as Balint groups, Schwartz Centre Rounds, and stress management sessions have been used in various settings, including training programs. Such programs help caregivers cope with the stressors of their work, decrease compassion fatigue and burnout, and help them reconnect with the purpose and meaning of their careers.^{76,77} Balint groups have been used for decades in primary care and family medicine programs. They are group sessions intended to enhance the physician's interviewing skills and relationships with patients. Tolerance, listening, and curiosity are skills that are emphasized.⁷⁸ Schwartz Centre Rounds are intended to

improve relationships and communication with patients and to enhance healthcare providers' sense of personal support.^{76,79} They are conducted in a safe multidisciplinary format where care providers are allowed time and space to share their stories, struggles, and successes related to their work in healthcare.⁸⁰ These sessions provide an opportunity for healthcare team members to debrief and reflect on the care they provide and its emotional impact. Lown and Manning⁷⁹ studied a group of attendees of Schwartz Centre Rounds and found that participants experienced decreases in perceived stress and an increase in the ability to cope with the emotional aspects of patient care.

The Mayo Clinic group recently conducted a meta-analysis of 15 randomized-controlled trials comprised of 716 physicians and 37 unique cohort studies involving 2,914 physicians. Notably, most of the studies found significant reductions in the scores for emotional exhaustion and depersonalization. Their findings indicated that results of the interventions showing differences in overall burnout did not differ between controlled trials vs observational trials or between residents vs practicing physicians. Institutional efforts were more effective than individual efforts. The authors remark that more investigation is needed to determine which interventions might be best for particular populations and what combinations of institutional and individual approaches might be most effective.

Linzer *et al.* described "10 bold steps" to prevent burnout in general internists (Table 2).⁸¹ Most of these steps may also be applied to anesthesiologists. Suggestions are broken down into institutional metrics, work changes, career development, and personal interventions to improve quality of life, reduce burnout, bring joy back into the practice of medicine, and ultimately improve the quality of patient care.

National considerations

Medical students, residents and fellows, and practicing anesthesiologists must overcome significant real and perceived barriers in seeking behavioural healthcare for themselves. Behavioural health conditions carry significant stigma compared with other medical conditions, even among healthcare providers.⁸² Additional barriers include concerns about confidentiality, cost, and time constraints. Due to these concerns, self-treatment is more likely, potentially leading to delays in appropriate treatment and even substance abuse.⁸³ Anesthesiologists, like all physicians, are cautious about revealing that they have received or are receiving care for depression or other behavioural health issues. This remains an issue even if

Table 2 The ten bold steps to prevent burnout in general internal medicine (adapted for anesthesiologists).⁸¹

Step	General Internal Medicine	Anesthesiology adaptation
1	Institutional metrics should include physician satisfaction well-being	Same
2	Incorporate mindfulness and teamwork for trainees and clinicians	Same
3	Decrease stress from Electronic Health Records	Same
4	Address challenging work conditions in underresourced primary care clinics-space, resources, availability of consultants	Improve work conditions in clinical areas
5	Cover predictable life events with clinician "float pools"	Same
6	Develop practice models that preserve physician work control	Same
7	Support manageable patient panel sizes, lengthened visits, and staffing ratios	Support manageable caseload and work production expectations
8	Support career planning, customization, development of interests	Same
9	Promote career opportunities and advancement for part-time physicians	Same
10	Prioritize self-care as part of medical professionalism	Same

their condition is stable and well-controlled because they have concerns about difficulties with licensure and medical staff credentialing.^{84,85}

In a review of medical licensure applications, Schroeder *et al.* determined that approximately 70% contained at least one question that was impermissible (or likely impermissible) in regards to compliance with the Americans with Disabilities Act (ADA).⁸⁶ While a balance exists to protect the public from unwell physicians, there is no reason that physicians who have been or are currently receiving treatment for depression, and are stable, should have to disclose this condition differently than any other medical history. Fear about the consequences of disclosure is one obstacle that physicians must overcome in order to seek care for depression or other health problems.⁸⁷ Some medical boards are addressing this concern with more explicit reassurance regarding disclosure in licensure applications. For example, one medical board in the United States has published a document⁸⁷ intended to "encourage physicians and other...licensees to seek help free of the unwarranted concern that doing so will automatically lead to Board intervention, discipline, or licensure limitation." We argue that medical boards and credentialing agencies should focus their questions on impairment rather than on a diagnosis of depression or other mental health problem.

Easing credentialing barriers can be one part of the solution, but additional efforts will be required to determine the best national strategies to confront and meaningfully address the problems of physician burnout, depression, and suicide. The ACGME has initiated several efforts to address this problem for residents and fellows, including the creation of a permanent task force focused on physician wellness, resources to educate the physician community about burnout, depression, and physician suicide, and collaborating with others in research projects

to delve further into the problem and solutions.⁸⁸ The ACGME's duty hour rules have been criticized but have also been shown to mitigate against resident burnout. Despite the success of these initiatives, support and attention must also be provided to practicing physicians.⁸⁹ The ACGME is partnering with other national organizations, such as the Association of American Medical Colleges, the American Medical Association, and the Institute of Medicine, to address wellness across the continuum of medical education and physician practice.⁹⁰ In 2007, the ASA established "Health and Wellness in Action", an initiative intended to promote health in the specialty.⁹¹ Other professional organizations have identified self-care as a professional obligation. Encouraging anesthesiologists and trainees to care for themselves will permit continued enthusiastic engagement in the practice of medicine and provide optimal and safe patient care.

Conclusions

The problems of physician burnout, depression, and suicide have existed in clinical practice and have been reported in the literature for over a decade. Numerous calls to action have occurred; however, a recent increase in public awareness and attention to the problem, along with the tragic loss of approximately one physician per day to suicide, has provoked a greater sense of urgency for improvement. Depression occurring during residency training negatively impacts trainee self-perception and their valuing of the medical profession.⁹² We consider self-care to be a professional imperative. The strategy to enhance physician well-being must be multilayered at the individual, institutional, and national levels. Anesthesiologists must develop skills to cope with the

periods of intense stress and challenge that are fundamentally present in the practice of anesthesiology. They must also learn and embrace practices to support their resiliency and mental health to foster long healthy careers filled with personal and professional satisfaction. Changes in medical licensing and institutional credentialing processes and enhanced awareness and education about the increased risk of burnout, depression, and suicide should decrease barriers to physicians seeking appropriate care. Anesthesiology practices and healthcare organizations should evaluate the balance between the demands they place on physicians and the resources provided to sustain an engaged, productive, and satisfied physician workforce. Ultimately, these strategies will benefit the organizations by decreasing staff turnover and improving the quality and safety of patient care.

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