

Well-Being in Graduate Medical Education: A Call for Action

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Abstract

Job burnout is highly prevalent in graduate medical trainees. Numerous demands and stressors drive the development of burnout in this population, leading to significant and potentially tragic consequences, not only for trainees but also for the patients and communities they serve. The literature on interventions to reduce resident burnout is limited but suggests that both individual- and system-level approaches are effective. Work hours limitations and mindfulness training are each likely to have modest benefit. Despite concerns that physician trainee wellness programs

might be costly, attention to physician wellness may lead to important benefits such as greater patient satisfaction, long-term physician satisfaction, and increased physician productivity. A collaborative of medical educators, academic leaders, and researchers recently formed with the goal of improving trainee well-being and mitigating burnout. Its first task is outlining this framework of initial recommendations in a call to action. These recommendations are made at the national, hospital, program, and nonwork levels and are meant to inform stakeholders who have taken up the

charge to address trainee well-being. Regulatory bodies and health care systems need to be accountable for the well-being of trainees under their supervision and drive an enforceable mandate to programs under their charge. Programs and individuals should develop and engage in a “menu” of wellness options to reach a variety of learners and standardize the effort to ameliorate burnout. The impact of these multilevel changes will promote a culture where trainees can learn in settings that will sustain them over the course of their careers.

Job burnout will affect the majority of graduate medical trainees. Predisposing factors may include work hours, work intensity, overwhelming responsibility for patient lives, maladaptive coping strategies, inadequate social and emotional support, and poor work–home balance.¹ The cumulative psychological toll of knowledge deficits, patient deaths, medical errors,² and “self-doubt”³ may also play a role in the evolution of burnout. In addition, work hours limitations, introduced to decrease demands on residents, have led to new stressors by creating a “beat the clock” mentality in which trainees must accomplish the same amount of work in less time,⁴ with a seemingly ever-increasing emphasis on throughput and shortened hospital stays. Furthermore, the advent of the electronic medical record, performance metrics, and hospital reimbursement has pulled resident

physicians away from the bedside, limiting patient interactions and leading to perceived and real loss of meaning from work.⁵ This redirected focus away from what is good for the patient toward what might be good for the system is likely another root cause of moral fatigue.

Implications and Interventions

Consequences of burnout to the trainee include poor academic performance, motor vehicle accidents, depression, and most tragically, suicide.¹ Trainee burnout may also negatively impact patient care. Perceived major medical errors, near-misses, unprofessional behavior, and reduced patient satisfaction are all potentially linked to burnout.¹ These consequences, therefore, have widespread implications for patients, physicians, training institutions, and public safety. In contradistinction, physician wellness begets patient wellness, such that pursuing resident wellness through burnout mitigation strategies is an aspirational imperative.

The literature on interventions to reduce resident burnout remains limited. These interventions can be divided into those acting primarily at the level of the individual physician and those acting through system-level or group-

level changes.⁶ Randomized trial data support the role of mindfulness-based stress reduction and related approaches for individual physicians.⁷ Randomized studies of system-level interventions are rare, have not demonstrated significant generalizable effects, and may lead to offsetting impacts on personal and professional lives.^{8,9}

Observational studies addressing burnout are more common. The majority of these have evaluated various iterations of the duty hours requirements mandated by the Accreditation Council for Graduate Medical Education (ACGME), with some studies reporting reductions in resident physician burnout and others reporting little effect.⁴ Studies of interventions directed at individuals suggest a role for meditation techniques to combat burnout, without necessarily addressing many of the root causes of burnout. In aggregate, the effects of burnout interventions for residents appear modestly positive but are inconsistent across studies. Higher-quality evidence is needed to inform best practices to address resident physician burnout.⁷

We believe that most program leaders and educators at the graduate medical level are concerned about trainee well-being but often lack the resources or

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necessary skills to address the issue. In addition, academic medical centers vary widely in the availability of system-level initiatives that target trainee burnout. A common worry is that efforts to promote trainee well-being may prove costly. However, when placed into a long view, the return on investment relative to the initial costs of these approaches becomes clear. Physician wellness has recently been cited as the fourth aim of health care reform necessary to sustain the vitality of our provider workforce,¹⁰ and a number of organizations have already released statements calling for change.¹¹ Because well-being habits may be “imprinted” during residency, targeting trainees has the potential for long-lasting effects. For example, among practicing physicians, provider well-being and satisfaction have been associated with greater patient satisfaction¹² and lower rates of professional work effort.¹³

Application of evidence-based approaches will maximize the positive impact of physician well-being programs and make these investments easier to justify. Beyond the financial considerations, however, our moral obligation to promote healthy work environments and personal well-being for physicians at all stages of training and practice must be acknowledged. Viewed in this light, the issue is not the cost of the necessary steps to promote well-being but, rather, the cost of not taking these steps. With both financial and ethical imperatives, the time has come for medical educators, researchers, and institutional leaders to promote widespread acceptance of measures aimed at improving well-being at the graduate medical education level.

To this end, the Collaborative for Healing and Renewal in Medicine (CHARM) is a group of medical educators, academic medical center leaders, experts in burnout research and interventions, and trainees working to promote learner wellness. Newly formed in collaboration with and supported by the Alliance for Academic Internal Medicine (AAIM), CHARM seeks to gather best practices, promote investigation of the impact of learner burnout, develop tools for educators to address learners in distress, and advocate for the recognition and inclusion of appropriate initiatives that foster learner well-being into traditional graduate and undergraduate medical

education programs. To meet these goals and address the aforementioned overwhelming need, we present a framework for initial recommendations based on existing evidence.

Recommendations

Efforts to promote wellness and decrease trainee burnout can exist on multiple levels of the health care ecosystem and be categorized as follows: national/certification, hospital/health care system, program/school, and nonwork life. Based on the considerable growing literature related to faculty and trainee well-being, we propose the following recommendations according to the level at which they should be implemented. Some of these recommendations may also apply to faculty, who are more likely to positively affect residents when they themselves are well.

National/certification level

Regulatory bodies should couple the inclusion of initiatives aimed at promoting trainee well-being with training program certification. For example, programs could be mandated to select from a “menu” of limited evidence-based wellness interventions (e.g., mindfulness training, stress management workshops, facilitated discussion groups) to include a minimum number of wellness curricular hours, perhaps 5 to 10 hours, in annual trainee schedules. This new curricular mandate would need to include some basic uniform criteria to limit variation in order to assess impact. The integration of such measures into existing training curricula may require relaxation of other mandates to avoid creating an additional burden to the trainee (e.g., wellness activities should be integrated into, not added on to, already-existing and full training curricula). If wellness curricular time is offered not in place of, but in addition to, existing scheduled educational sessions, the interventions may not only be ineffective but also could generate resentment from trainees already functioning “at capacity.” Regulatory bodies (e.g., the ACGME) should account for these additional training hours when considering annual curricular educational requirements. Such groups should be parsimonious with mandates, carefully considering the unintended consequences of new expectations placed on an already-burned-out trainee population, especially

in light of newer studies suggesting that training and heavy workload can reduce resilience and may lead to increased medical errors.^{14,15} In addition, such groups should offer guidance and hold institutions and training programs accountable (e.g., via Clinical Learning Environment Review [CLER] visits) for implementing recommended wellness programs and consistently promoting a culture that mitigates trainee burnout. The regulatory body (CLER) visit should hold significant weight with regard to the implementation of these new regulations and the estimation of the “emotional well-being” of the reviewed program or institution. Without regulations such as these from accrediting bodies, it seems unlikely that health systems and hospitals will adopt the changes needed to ensure provider and trainee well-being, as has largely been the case to date.

Hospital/health care system level

Health care systems should be concerned about how much occupational stress is imposed on trainees and consider the potential impacts of wellness on quality and productivity. Society has made the connection between cognitive workload and workplace safety for such occupations as nuclear power workers, air traffic controllers, and airline pilots. Demands placed on the trainee by the hospital and health care system (e.g., expedited discharges, burdensome electronic medical records) and system-based inefficiencies can drain the resident’s emotional, physical, and cognitive resources needed to make clinical decisions, thereby contributing to the risk of medical errors unrelated to fund of knowledge.¹⁶ The emotional impact on physicians who are involved in adverse events can also be devastating. Organizations should provide peer support to any resident involved in events such as errors, lawsuits, or other emotionally stressful situations, such as the illness of a colleague.^{17,18} Efforts to promote a respectful health care team atmosphere should be encouraged to mitigate the trainee burnout that occurs from “toxic” work environments.¹⁹ One option to improve workplace atmosphere is the implementation of communication skills training programs, which have the potential not only to improve measures of patient satisfaction but also to reduce physician burnout.²⁰ In addition, there is a science of teamwork, called relational coordination, that measures

the communication between all team members so that targeted interventions can build on strengths and address challenges.²¹ Some organizations have already effected organizational culture change in the trainee and provider work environment by promoting “mutual respect, trust, and teamwork” and setting standards of professionalism through robust educational and accountability initiatives.²² Indeed, there is some suggestion that workplace interventions that focus on improving communication, workflow, and quality of care can decrease provider burnout.²³ We believe now is the time when the culture change efforts we suggest are more likely to be successful, as there is a growing body of evidence demonstrating which interventions promote well-being and an improved understanding of how to measure their impact.

Program/school level

The dual approach of promoting physician well-being may be most visible at this level, with necessary efforts targeting both organizational change and individual residents’ skills. Patient service size,⁴ work hours,⁶ and rotation length²⁴ must continually be examined as variables that have the potential to either promote or erode physician well-being. The needs of the hospital or faculty often drive scheduling decisions. However, the needs of students and trainees should be weighed as well, with an eye toward direct supervision early in the academic year, more indirect supervision later in the academic year, and identification of residents who are not progressing toward independence necessitating remediation. Novel scheduling models should be explored to consider when errors are most likely to occur and how work demands and intensity can be shifted away from the novice trainee, who experiences greater cognitive load with comparable tasks relative to more seasoned counterparts.^{25,26} This highlights the role of the teaching program in fostering a collaborative culture of learning. A culture in which trainees and faculty speak openly about the challenges of training and its anticipated impact will serve to promote wellness and destigmatize stress-related concerns. Culture change is challenging, but a mix of trainees, learners, and administrators can improve the learning and training culture by creating opportunities to

discuss anonymous feedback, so long as these groups are empowered to affect change.

Offering evidence-based interventions—such as mindfulness and resilience training, stress and self-care management workshops, communication skills training, narrative medicine, reflection opportunities, and peer support grounded in group discussions—is a good place to start.^{6,27} The existing evidence suggests that these combined interventions may decrease absolute burnout rates by 10%.⁶ Given the likelihood that trainees will vary in their acceptance of intervention types, a “menu” of options incorporating several of these initiatives is recommended, and their implementation should be subject to study. It is critical to incorporate the “boots on the ground” perspective by gathering real-time resident physician opinions when implementing interventions and developing new initiatives. Finally, one of the critical missing pieces remains the study of the effectiveness of these interventions when implemented and integrated into training program curricula. Schools and programs must continue to encourage on-site medical education research to further delineate best practices in the promotion of resident well-being interventions.

Nonwork life level

Institutions and regulatory agencies need to make efforts to improve support for work–home balance. More attention should be drawn to the role of social supports outside of one’s profession on overall wellness.²⁸ With the advent of remote access to electronic health records, the boundary between what can be done at work and at home has blurred.²⁹ Consideration should be made to monitor time spent working outside of the work environment and having such efforts count toward total duty hours logged. Furthermore, it should be purposeful and rare when a trainee works outside the work environment, not a necessity of one’s job. Although it is impossible to homogenize the differences between physicians and how they practice, the outcome of the above interventions should ideally yield sufficient rest and time away from work with the opportunity to explore other aspects of life beyond work and sustain one’s career for a lifetime, if not at

least until retirement. Creative ways to reduce stress on the trainee’s life outside of medicine should be explored (e.g., participation in music and the arts, advocacy work, exercise, etc.).

Next Steps

Supporting wellness is critically important to mitigating burnout. Burnout that begins in medical training or earlier can continue or worsen throughout the years of practice. Given the potentially tragic consequences of burnout and the growing favorable evidence of programs that promote resident well-being, regulatory bodies, hospital systems, and training programs need to join together to usher in a new era of graduate medical education—one that accounts for the impact of training on the trainee and cultivates the skills needed to sustain providers throughout their professional careers.

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