

# Pathology in the Medical Profession?

## Taking the Pulse of Physician Wellness and Burnout

Iris Schrijver, MD

• **Context.**—In the past decades, physician wellness has diminished in every aspect of professional life. Burnout symptoms in the United States affect 30% to 68% of physicians overall—exceeding the levels of any other professional group. The ramifications of burnout present an underrecognized crisis in the health care system that carries the consequences of personal, professional, institutional, and societal costs.

**Objective.**—To bring to light the elements of current medical practice that contribute to physician professional fulfillment and burnout. Intervention measures, steps toward burnout prevention, and the present limitations thereof are also addressed.

**Data Sources.**—This narrative literature review was performed by using studies in PubMed (National Center for Biotechnology Information) and large online physician surveys, published through December 2015. Because of geographic differences, the review is primarily concen-

As diagnosticians, healers, and leaders of provider teams, physicians help relieve suffering and create the conditions for recovery from illness. To optimally carry out their critical roles in the health care process, physicians need sources of resilience and well-being. In other words: in order to *do* well, they must *be* well. Physician wellness, then, can be defined as a basic level of physical and mental well-being that enables physicians to adequately handle stress and to prosper in the personal and professional dimensions of their lives.<sup>1,2</sup> It is concerning that the past decades reveal a steady erosion of physician wellness<sup>3</sup> that is demonstrated most clearly in the frequency of burnout symptoms.

Burnout symptoms are a response to long-term work-related stress and 1 parameter used to examine the extent of well-being. To understand these symptoms, it is pertinent to first describe the term: *burnout* is characterized by 3 distinct domains, which can be assessed by the 22-item Maslach Burnout Inventory (MBI).<sup>4-8</sup> The first domain, “Emotional

trated on physicians across specialties in the United States. Small studies and those of single disciplines were excluded.

**Conclusions.**—Many physicians learn to tolerate burnout symptoms despite negative personal consequences. Long-term work-related stress, however, may lead to the potential for negative effects on the quality of patient care, and to attrition. Interestingly, the factors that enhance physician fulfillment and those that may precipitate burnout symptoms are distinct. Optimization of physician well-being, therefore, requires tailored approaches in each of these 2 dimensions and is most likely to succeed if it includes approaches that are customized to career phase, physician specialty, and practice setting. Importantly, organization leaders must prioritize this issue and provide sustained support for wellness initiatives, to foster a culture that is conducive to physician well-being.

(*Arch Pathol Lab Med.* 2016;140:976–982; doi: 10.5858/arpa.2015-0524-RA)

Exhaustion,” includes loss of enthusiasm for work or feeling drained. The second, “Depersonalization,” can be expressed by cynicism or a callous approach toward others. The third domain explores a “Low Sense of Personal Accomplishment,” and is associated with a perception of clinical ineffectiveness and a feeling that the work is no longer meaningful.<sup>4,7,9</sup> Because the third domain appears to be less applicable to physician burnout, high scores on the “Emotional Exhaustion” and “Depersonalization” scale are often emphasized.<sup>4,8,10</sup>

The MBI scores and cutoffs are thought to be country specific.<sup>2,6</sup> Although findings are similar in other countries, for the purpose of specificity this review is primarily focused on practicing physicians in the United States. There, as reported by one study with 7288 participating physicians, 3338 of 7288 (45.8%) have 1 or more symptoms of burnout.<sup>8</sup> Another study<sup>11</sup> demonstrated that more than half of 6880 responding physicians experienced professional burnout, an increase from 2011 when it was 45.5%. These concerning numbers exceed the prevalence figures of the general population with a high-school diploma (odds ratio, 1.36;  $P < .001$ ). High prevalence of physician burnout symptoms is not associated with the education level, however, individuals with professional or doctoral degrees other than a medical degree have a lower odds ratio (0.64,  $P = .04$ )<sup>8</sup> than the overall population. Consequently, causes of physician burnout appear inherent to the current medical system and

Accepted for publication January 11, 2016.

Published as an Early Online Release February 1, 2016.

From the Departments of Pathology and Pediatrics, Stanford University School of Medicine, Stanford, California.

The author has no relevant financial interest in the products or companies described in this article.

Reprints: Iris Schrijver, MD, Department of Pathology, Stanford University School of Medicine, 300 Pasteur Dr, Room L235, Stanford, CA 94305-5627 (email: ischrijver@stanfordhealthcare.org).

its practice environments, rather than a matter of personal resilience.<sup>8,12</sup>

This review was performed with the purpose of illuminating causes of burnout and steps toward increasing physician well-being across institutions and organizations. It is a narrative review of diverse studies, each with its own research parameters, and results for which there is not necessarily unanimous acceptance. The review, however, was systematically performed by using PubMed (National Center for Biotechnology Information) studies published through December 2015 that focused on physicians across specialties in the United States. Search key words were as follows: physician wellness, professional fulfillment, satisfaction, dissatisfaction, burnout, and work-life integration. Although included articles generally used rigorous methods, some large Web-based surveys were included in this review as well. In these, recruitment may not have been by thoroughly validated tools, but their scope provides an opportunity of insight into the pulse of physicians' opinions. The literature presented will be able to highlight the changes in the medical profession that factor into the development of burnout symptoms among physicians, the practice parameters that contribute to professional fulfillment and distress, and the impact of physician burnout at the personal, professional, institutional, and societal level, including its consequences related to the delivery of patient care. Intervention measures at select institutions and steps toward burnout prevention are also addressed.

### WELLNESS AND BURNOUT: A "HISTORY AND PHYSICAL"

Physicians today have unprecedented diagnostic and treatment options, but they increasingly face external constraints on how they practice their profession. These factors, among others, have been identified to cause chronic stress.<sup>13</sup> Concomitantly, the number of physicians with burnout symptoms has escalated: across medical specialties, 30% to 68% of 7288 responding physicians experienced burnout.<sup>8</sup> Not surprisingly, specialties providing the most urgent care are at the high end of that spectrum.<sup>8</sup>

As compared to 1986, physicians in 2002 were less fulfilled in all facets of their professional lives.<sup>9</sup> Ten years later, more than half of the physician participants in one survey<sup>14</sup> favored a reduction in their patient care activities. Another US physician survey revealed similar sentiments: in more than half of the participating specialties, career satisfaction was expressed by no more than 50% of physicians.<sup>15</sup> Mid-career physicians are at greatest risk, consistent with the Community Tracking Study of the 1990s.<sup>16</sup> Depending on career stage, different issues appear to dominate, but emotional exhaustion and depersonalization are exceedingly prevalent, present in both men and women, and observed across practice settings and specialties.<sup>10,11,17-19</sup> In such analyses, pathologists are no exception: in a recent study with 6880 participating physicians from 23 medical specialties and 1 "other" category, the specialty of pathology was in position 14 of 23 from the top (emergency medicine had the highest level of burnout).<sup>11</sup> Pathology was associated with a burnout prevalence of 52.5% in 2014 (with 170 responders), compared to 37.6% in 2011 (with 184 responders) ( $P = .006$ ).

The US physician satisfaction studies summarized in Table 1<sup>10,11,14,16,20</sup> were selected on the basis of the large number of participating physicians (>6800 each), time frame (1996-

December 2015), and inclusiveness across specialties. Smaller, single-institution, or single-specialty studies were excluded. Although cross-sectional study designs do not allow definitive conclusions about cause and potential direction of observed effects, physician wellness appears firmly related to career contentment. Health care today aims to decrease costs, improve quality of care, and optimize the patient experience. Although physicians are unlikely to argue with the principle of patient-centered care, the incidence and ramifications of burnout symptoms are likely to increase, as long as current practice pressures are not adequately addressed.<sup>8,21-24</sup>

### CAUSES OF PHYSICIAN DISSATISFACTION AND BURNOUT

Physicians have always had challenging professional lives and routinely make decisions that impact the chances of healing, life, and death. They are known for personal sacrifices and for a life of service to their patients. In the past decades, however, claims on personal time have increased. Additional stressors that may influence the emergence of burnout symptoms include the threat of malpractice suits, a shift toward intensive use of technology, and a surge in regulatory and competency maintenance requirements.<sup>24-26</sup> At the same time, control over the practice has diminished, time with patients was curtailed, and administrative tasks have proliferated.<sup>1,13,19,27</sup> It has been noted that in the health care reform process, the impact on physicians' emotional well-being seems to have been missed.<sup>28</sup>

Factors that may influence physician wellness (Table 2) can become more or less prominent during different career phases.<sup>1,2,7,19,29</sup> A strong link has been observed between career fulfillment and the amount of time physicians are able to devote to the work aspects most meaningful to them. If this time comprised 20% or more of professional endeavors, the risk of burnout was cut in half. Thus, career fit appears to be a driver of physician wellness. This insight should give academic leaders pause if they wish to optimize the scientific, medical, and training yield of faculty at their institutions.<sup>19</sup> Specifically, the alignment of career ambitions with job requirements has been reported to help prevent attrition of academic faculty physicians.<sup>19</sup> Moreover, department leaders can have substantial influence on the work climate overall.<sup>30,31</sup>

### THE IMPACT OF BURNOUT

#### Practice and Profession

Burnout has numerous implications, but it most directly impacts the physician workforce. Affected physicians are more likely to leave their position, their specialty, or the practice altogether (Table 1).<sup>13,14</sup> Such plans are not necessarily followed through, of course. Nevertheless, and despite the fact that studies on physician fulfillment are based on self-reported perceptions with additional inherent limitations, many physicians indicate a desire to practice less.<sup>2,32</sup>

Mid-career physicians, who have the highest risk of burnout, form the group whose career redirection likely has the greatest consequence because they are experienced, productive practitioners.<sup>10</sup> However, attrition from any career level may generate increased risk for burnout if the service responsibilities of a departing physician need to be covered. Departures may also precipitate a sense of turmoil, which could result in further turnover. Chances for

**Table 1. Large US Physician Satisfaction Surveys, 1996–2014**

Responding Physicians and Year of Study	Study Description	Study Results Summary	Source, y
12 474 (65% RR); Community Tracking Study; 1996–1997	Career satisfaction among US physicians across specialties	<ul style="list-style-type: none"> <li>• More than 80% were satisfied/very satisfied with their overall careers in medicine</li> <li>• Almost 18% were somewhat dissatisfied/very dissatisfied with their overall careers in medicine</li> <li>• Career satisfaction and dissatisfaction varied across specialties, age, income, and region</li> <li>• There was no difference in career satisfaction between male and female physicians</li> <li>• Mid-career physicians had the lowest rate of career satisfaction</li> </ul>	Leigh et al, <sup>16</sup> 2002
7288; 2011	Professional satisfaction and burnout by career stage in US physicians across specialties	<ul style="list-style-type: none"> <li>• Burnout criteria<sup>a</sup> were reached by 50.5%, 53.9%, and 40.4% at &lt;10 y, 11–20 y, and &gt;20 y in practice, respectively</li> <li>• Physicians with &lt;10 y in practice were the least satisfied with their career choice of medicine and experienced the most work-home conflicts</li> <li>• Physicians with 11–20 y in practice had the lowest satisfaction with work-life integration and their choice of specialty and the highest rates of emotional exhaustion and burnout. The mid-career challenges were present in both sexes across specialties and in all practice types (<i>P</i> &lt; .001)</li> </ul>	Dyrbye et al, <sup>10</sup> 2013
13 575; 2012	Comprehensive survey, including career satisfaction among US physicians across specialties	<ul style="list-style-type: none"> <li>• Almost 58% would not recommend a career in medicine to their children or to other young people</li> <li>• 33.5% would not choose a career in medicine once again</li> <li>• Almost 61% would retire today if they had the means, compared to almost 45% in 2008</li> <li>• More than 50% planned to make changes to their current practice, including seeing fewer patients, working part-time, seeking a nonclinical job within health care, switching to concierge medicine, or retiring</li> </ul>	Physicians Foundation, <sup>14</sup> 2012
24 075; 2013–2014	Comprehensive survey, including career satisfaction among US physicians across 25 specialties	<ul style="list-style-type: none"> <li>• 58% of responding physicians would choose a career in medicine once again</li> <li>• Overall, 47% would select the same specialty</li> <li>• Of the 25 specialties surveyed, 11 (44%) scored ≤50% in overall career satisfaction</li> </ul>	WebMD LLC, <sup>20</sup> 2014
6880; 2014	Dimensions of professional well- being, including burnout and satisfaction with work-life integration, in US physicians across specialties	<ul style="list-style-type: none"> <li>• 54.4% of physicians reported at least 1 burnout symptom on the Maslach Burnout Inventory</li> <li>• 40.9% of participating physicians reported satisfaction with work-life integration</li> <li>• Relative to the general US population, physicians have increasing disparity in satisfaction with work-life integration and burnout, even after pooled multivariate analysis that adjusted for sex, age, hours worked per week, and relationship status</li> </ul>	Shanafelt et al, <sup>11</sup> 2015

Abbreviation: RR, response rate.

<sup>a</sup> Determined via high scores for emotional exhaustion and/or depersonalization on the Maslach Burnout Inventory.

Downloaded from <http://meridian.allenpress.com/doi/pdf/10.5858/arpa.2015-0524-RA> by guest on 03 December 2022

**Table 2. Factors That May Influence the Development of Burnout Symptoms Among Physicians**

Main Categories of Factors	Examples of Contributing Issues
Chronic fatigue	Excessive work load Sleep deprivation Constant access demands (eg, electronic availability)
Perceived threats	Decreased personal time Malpractice lawsuits Patient violence Medical error Reduced compensation Limited control over the practice Increased regulatory and maintenance requirements
Loss of autonomy	Research funding climate Practice environment Time to interact with patients constrained
Inefficiencies	Misalignment with the work aspects perceived to be the most meaningful (career fit) Administrative requirements Lack of support staff Practice organization/work flow
Balancing needs	Suboptimal integration of work and life responsibilities Clinical service requirements and additional demands, eg, in research, teaching, and administration
Chronic stress	Work pace Practice setting Degree of chaos/unpredictability in the workplace
New technologies	Electronic medical health records (IT) Keeping up with technology advances in the practice Expectation of adoption and integration of virtual communication and social media tools
Alignment of goals and values	Interests competing with patient care delivery <ul style="list-style-type: none"> <li>• Physicians and leaders/institution</li> <li>• Physicians and payors</li> </ul>
Physician factors	Negligence regarding personal health and well-being Perfectionism Internal drive and ambition

Abbreviation: IT, information technology.

expeditious recruitment of a replacement would thus be reduced. In academia, faculty physicians serve as role models for medical students, residents, and fellows and may well induce the professional outlook and choices of these trainees.<sup>11</sup> Turnover there is highest among junior faculty, who often experience pressing work-life conflicts.<sup>19,30</sup>

### Patient Care

Physician burnout may adversely affect productivity and effectiveness.<sup>2,33</sup> Typically, physicians aim to maintain quality work despite personal cost, but practice parameters that promote burnout have been linked to suboptimal quality of care, albeit inconsistently.<sup>23,26,33,34</sup> This variance may be influenced by different study settings, the nature of self-reported data, and the assessment of divergent quality indicators. Examples of dimensions in which quality may be affected include professionalism, compassion, prescription, the probability of making mistakes, and referral patterns.<sup>2,7,35,36</sup> Interestingly, patient compliance with therapeutic regimens is also negatively associated with clinician burnout.<sup>2,26,37–39</sup> Lastly, physician attrition may limit availability of medical care, especially in areas that have physician shortages.<sup>10</sup>

### Economic Considerations

Physicians with burnout are at increased risk of leaving their practice,<sup>13,19,30</sup> which impacts practices and institutions because of recruitment and hiring expenditures that often exceed the individual's annual compensation,<sup>40</sup> with lost clinical income in the interim.<sup>40,41</sup> This one economic angle

does not factor in the monetary value of loss of specific clinical, research, or teaching expertise, which is much more difficult to quantify. It is also challenging to comprehensively measure the wider economic impact of burnout. One way to assess this is through evaluation of the financial benefit to companies and health care organizations that prioritize employee wellness.<sup>32,42</sup> This pays off because of increased retention, collaboration, and productivity.<sup>32,42</sup> A critical meta-analysis of the literature revealed that every dollar devoted to employee-wellness programs reduced costs associated with medical leave and absenteeism by approximately \$3.27 and \$2.73, respectively.<sup>43</sup>

### Personal Cost

Professional repercussions resulting from burnout notwithstanding, the personal costs can be tremendous. These include the occurrence and consequences of chronic fatigue, relationship conflicts, substance abuse, psychiatric morbidities, and suicidal ideation.<sup>1,2</sup> Reliably measuring indicators of mental and emotional wellness is complicated,<sup>2</sup> and prevalence data vary considerably. However, compared to the general population, physicians have a higher risk of substance abuse, which is estimated to affect up to 12% of physicians in active practice. The probability of suicide approximates 6 times that of the general population. Physicians also have been reported to be at risk of more frequent cardiovascular mortality.<sup>2,27</sup>

### HEALING THE HEALER: INTERVENTIONS

Few means to reduce stressors in medical practice have been systematically studied. One exception is a randomized

clinical trial that tested specific interventions at an academic center.<sup>44</sup> A survey was followed by biweekly discussion groups for 9 months, and the hour of attendance was incorporated into the workday and paid for by the institution. Compared to peers, physicians who engaged in the intervention felt more empowered and involved. In addition, symptoms of depersonalization, emotional exhaustion, and overall burnout decreased, which was sustained 1 year later. Another example of a systematic evaluation is a multisite cluster randomized trial of interventions in academically affiliated and nonacademic primary care practices.<sup>45</sup> Interventions were broadly categorized under improved communication, workflow redesign, and focused quality improvement projects that specifically addressed physicians' concerns. After 12 to 18 months, satisfaction had increased and burnout decreased. Other institutional efforts include a longitudinal program at a multisite primary care group, which used anonymous questionnaires to develop an iterative program that improved organizational wellness through data-guided interventions. Physician well-being was enhanced by evidence-based commitment to cultivating order in the workplace, supporting physician influence over the practice environment, and attention to meaning.<sup>46</sup>

Personal coping strategies, typically expected to be pursued outside of work hours, have been made available more widely than institutional interventions.<sup>47-49</sup> Mindfulness training has proved beneficial in medical and nonmedical settings alike,<sup>1,49-51</sup> and increased self-awareness may help identify the work elements most personally meaningful.<sup>52</sup> By augmenting these, professional fulfillment can be improved.<sup>19,50,52</sup> Interests may change over time, however, and issues contributing to burnout are not necessarily constant. Thus, career stage is another important consideration.<sup>10</sup>

Because connection with peers is one of the most easily accepted sources of support, barriers for discussion groups that create an environment of mutual support may be minimal.<sup>44,53</sup> Unfortunately, definitive outcome metrics for these and other intervention strategies are almost nonexistent. Sample sizes are often small, study designs flawed, and effects not longitudinally monitored.<sup>52</sup> As a result, reports are frequently restricted to "description and prescription," offering suggestions that have not been systematically validated.<sup>13</sup> Despite these limitations, the first critical step is acknowledgement that physician well-being requires attention. Only then can it be advanced to a personal and organizational core value.<sup>2,46</sup>

## BURNOUT ALLEVIATION AND PREVENTION

In one survey of more than 24 000 responding physicians across 25 specialties, physicians reported that the most rewarding aspects of their careers were use of their expertise (34%) and patient relationships (33%), followed by making a difference (12%), remuneration (10%), pride in being a physician (6%), and other rewards (5%)<sup>20</sup> (Table 1). These findings are congruent with those of an earlier cross-specialty study,<sup>14</sup> which identified that patient relationships (80.2%) and intellectual stimulation (69.7%) outranked interactions with colleagues (19.2%), financial compensation (11.7%), and professional prestige (10%) (Table 1). Overall, being able to provide adequate patient care is at the center of physician fulfillment and it is this desire that intrinsically motivates. Because professional and personal

fulfillment are closely intertwined, steps that contribute to the realization of a satisfying personal life further increase the likelihood of professional wellness.<sup>32</sup>

Some factors expected to enhance physician professional wellness can be inferred from the issues that may contribute to the development of burnout symptoms (Table 2), but it is worthwhile to explore physician wellness separately. In multiple studies across occupations and populations, work motivation, quality, and fulfillment depended mainly on intrinsic factors, such as the ones that prominently emerged from the abovementioned surveys. In contrast, factors extrinsic to the nature of the work do not much influence well-being, but when deficient they may precipitate demotivation and frustration (Table 3).<sup>32,54</sup> The respective roles of motivating and demotivating factors may well provide a plausible explanation for why physicians with burnout have high scores on the "Emotional Exhaustion" and "Depersonalization" scales,<sup>7,9</sup> but they do not fit well with the third dimension of the MBI,<sup>4</sup> which reflects whether the work is perceived to be meaningful. Thus, one might hypothesize that whereas physicians find intrinsic fulfillment in their profession, the external pressures on their practice may give rise to burnout because of a long-term corrosion of work elements that facilitate physician well-being. With this in mind, increasing physician fulfillment, as one aspect of wellness, and preventing the development of burnout symptoms become somewhat distinct targets that require different, albeit complementary, approaches<sup>32</sup> (Table 3).

Mentorship may provide support at every career stage,<sup>9,55,56</sup> while physician leaders are positioned to influence the professional wellness of their constituents, as well.<sup>31</sup> Factors contributing to physician wellness can be supported and enhanced at the institutional level because physician well-being is a measurable quality indicator that, just like financial performance and patient care delivery, deserves to be optimized.<sup>2,22</sup> Oversight and direction of such efforts can be provided by a physician wellness committee,<sup>9,12,23,34</sup> which may launch initiatives to assess the prevalence of burnout and to measure professional stress early on.<sup>57</sup> It can also proactively share wellness tools and implement, sustain, and longitudinally monitor wellness-enhancing programs.

## A CALL FOR CULTURE CHANGE

The notion of physician wellness made its way into the regulatory framework in 2001 when The Joint Commission (previously Joint Commission on Accreditation of Healthcare Organizations) incorporated the identification and management of physician health issues into its standards<sup>58</sup> (Measure MS.11.01.01, document access available by subscription).<sup>9</sup> Whereas mandating such a process is a step in the right direction, it does not necessarily follow that physicians are offered practically accessible wellness options, such as suitable rest areas and healthy nutrition.<sup>2</sup> Although it may seem that such resources add cost, health care organizations and, by extension, society at large, benefit from wellness-enhancing programs, even financially. The most effective employee wellness programs include 6 pillars: (1) engaged leadership at various organizational levels; (2) strategic alignment of stakeholders; (3) program quality, relevance, and broad scope; (4) wide accessibility; (5) internal and external partnerships to optimize offerings; and (6) effective communications.<sup>42</sup>

**Table 3. Intrinsic and Extrinsic Factors That May Contribute to Physician Wellness**

Examples <sup>a</sup>	
Intrinsic factors	Appreciation from patients Continuing medical education Engagement in scientific discovery Mentoring Opportunities for personal and professional development (eg, leadership training) Optimization of career fit and interests Teaching junior colleagues
Extrinsic factors	Adequate communication between stakeholders <ul style="list-style-type: none"> <li>• Alignment of physician goals and institutional/organizational goals</li> <li>• Clear expectations</li> <li>• Process transparency and integrity</li> </ul> A calm practice environment <ul style="list-style-type: none"> <li>• Organized practice, reasonable pace, sufficient support staff</li> </ul> Administrative assistance A user-friendly electronic health record Availability of flexible/part-time schedules <ul style="list-style-type: none"> <li>• Job sharing</li> <li>• Availability of floaters</li> </ul> Enhanced control over the work schedule Fair compensation Institutional commitment to research funding/bridge funding Reasonable work hours Recognition and appreciation Recognition of the importance of physician wellness with funded and sustained initiatives, eg, through a physician wellness committee Support from colleagues True time “off” (including electronic unavailability)

<sup>a</sup> Listed in alphabetical order.

Even with acknowledgement of burnout as a paramount issue in health care today, amelioration can only be successful if physicians themselves are prepared to engage, even if barriers exist.<sup>2,27</sup> Many physicians seem to have self-reliant type A personalities and a towering sense of responsibility, tending to delay self-care for fear of not doing enough, particularly for their patients.<sup>9</sup> This is not surprising, given that medical schools select for such traits. The deep-seated value of prioritizing work is observed in role models during training and results in an unspoken code of conduct that assumes that a physician must carry on when ill.<sup>59</sup> This personal expectation is extended to colleagues, although nonphysicians are not held to the same standard.<sup>2,9</sup> A more compassionate professional environment would likely enhance wellness by enabling physicians to assume greater responsibility for their own health, and to support their colleagues.

### CONCLUSIONS

The prevalence of dissatisfaction with work-life integration and of burnout among practicing physicians in the United States has increased in the past decades and is higher than for any other category of professionals, thus representing a silent crisis in health care overall. This review summarizes research indicating that physician burnout is underrecognized and suggesting that it is frequently neglected where awareness is present. Given its ramifications of personal and societal cost, physicians and their professional organizations need to be stimulated to work on the development of personal resilience combined with a professional expectation of attention to self-care. The responsibility for physician well-being, however, must also be carried by health care organizations, academic institutions, and practices. Efforts to enhance professional wellness are most likely to succeed if they include personal as well as

institutional approaches, and are customized to career phase, specialty, and practice setting. Personal approaches can include mindfulness training and participation in peer support groups. Institutional backing can include the establishment of a wellness committee, using physician wellness metrics as a quality indicator, and providing direct support to physicians to enhance wellness, for example, by providing scheduled, supported time for wellness activities during the work day.

Physicians recognize patient care as the most rewarding aspect of their profession. As such, they are most likely to flourish when provided with the tools that facilitate this calling. In any such efforts, it is important to understand that the factors that enhance physician fulfillment and those that drive dissatisfaction are distinct and require different approaches. For any initiative to be perceived as credible and to take hold, however, organization leaders need to demonstrate an elevation of the issue, with prioritization, funding, and sustained support.

### References

1. Shanafelt TD, Sloan JA, Habermann TM. The well-being of physicians. *Am J Med.* 2003;114(6):513–519.
2. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet.* 2009;374(9702):1714–1721.
3. Murray A, Montgomery JE, Chang H, Rogers WH, Inui T, Safran DG. Doctor discontent: a comparison of physician satisfaction in different delivery system settings. *J Gen Intern Med.* 2001;16(7):451–459.
4. Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory Manual.* 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996.
5. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol.* 2001; 52(1):397–422.
6. Schaufeli WB, Bakker AB, Hoogduin K, Schaap C, Kladler A. On the clinical validity of the Maslach Burnout Inventory and the Burnout Measure. *Psychol Health.* 2001;16(5):565–582.
7. 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(5):358–367.
8. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med.* 2012;172(18):1377–1385.

9. Spickard A Jr, Gabbe SG, Christensen JF. Mid-career burnout in generalist and specialist physicians. *JAMA*. 2002;288(12):1447–1450.
10. Dyrbye LN, Varkey P, Boone SL, Satele DV, Sloan JA, Shanafelt TD. Physician satisfaction and burnout at different career stages. *Mayo Clin Proc*. 2013;88(12):1358–1367.
11. Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc*. 2015;90(12):1600–1613.
12. Shannon D. Physician well-being: a powerful way to improve the patient experience. *Physician Exec*. 2013;39(4):6–8, 10, 12.
13. Williams ES, Konrad TR, Scheckler WE, et al. Understanding physicians' intentions to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. *Health Care Manage Rev*. 2010;35(2):105–115.
14. Physicians Foundation. A survey of America's physicians: practice patterns and perspectives. 2012. [http://www.physiciansfoundation.org/uploads/default/Physicians\\_Foundation\\_2012\\_Biennial\\_Survey.pdf](http://www.physiciansfoundation.org/uploads/default/Physicians_Foundation_2012_Biennial_Survey.pdf). Accessed December 8, 2015.
15. WebMD LLC. Medscape Physician Compensation Report 2012. 2012. <http://www.medscape.com/sites/public/physician-comp/2014>. Accessed December 8, 2015.
16. Leigh JP, Kravitz RL, Schembri M, Samuels SJ, Mobley S. Physician career satisfaction across specialties. *Arch Intern Med*. 2002;162(14):1577–1584.
17. Haas JS, Cleary PD, Puopolo AL, Burstin HR, Cook EF, Brennan TA. Differences in the professional satisfaction of general internists in academically affiliated practices in the greater-Boston area: Ambulatory Medicine Quality Improvement Project Investigators. *J Gen Intern Med*. 1998;13(2):127–130.
18. Linzer M, Konrad TR, Douglas J, et al. Managed care, time pressure, and physician job satisfaction: results from the physician worklife study. *J Gen Intern Med*. 2000;15(7):441–450.
19. Shanafelt TD, West CP, Sloan JA, et al. Career fit and burnout among academic faculty. *Arch Intern Med*. 2009;169(11):990–995.
20. WebMD LLC. Medscape Physician Compensation Report 2014. 2014. <http://www.medscape.com/sites/public/physician-comp/2012>. Accessed December 8, 2015.
21. Spinelli WM. The phantom limb of the triple aim. *Mayo Clin Proc*. 2013;88(12):1356–1357.
22. Hinami K, Whelan CT, Wolosin RJ, Miller JA, Wetterneck TB. Worklife and satisfaction of hospitalists: toward flourishing careers. *J Gen Intern Med*. 2011;27(1):28–36.
23. Linzer M, Levine R, Meltzer D, Poplau S, Warde C, West CP. 10 bold steps to prevent burnout in general internal medicine. *J Gen Intern Med*. 2013;29(1):18–20.
24. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient required care of the provider. *Ann Fam Med*. 2014;12(6):573–576.
25. Linn LS, Yager J, Cope D, Leake B. Health status, job satisfaction, job stress, and life satisfaction among academic and clinical faculty. *JAMA*. 1985;254(19):2775–2782.
26. Williams ES, Skinner AC. Outcomes of physician job satisfaction: a narrative review, implications, and directions for future research. *Health Care Manage Rev*. 2003;28(2):119–139.
27. Arnetz BB. Psychosocial challenges facing physicians of today. *Soc Sci Med*. 2001;52(2):203–213.
28. Dyrbye LN, Shanafelt TD. Physician burnout: a potential threat to successful health care reform. *JAMA*. 2011;305(19):2009–2010.
29. Linzer M, Baier Manwell L, Mundt M, et al. Organizational climate, stress, and error in primary care: the MEMO Study. In: Clancy C, ed. *Advances in Patient Safety: From Research to Implementation*. Vol 1: Research Findings. AHRQ 05-0021. Rockville, MD: Agency for Healthcare Research and Quality; 2005. <http://www.ncbi.nlm.nih.gov/books/NBK20452>. Accessed December 8, 2015.
30. Bucklin BA, Valley M, Welch C, Tran ZV, Lowenstein SR. Predictors of early faculty attrition at one Academic Medical Center. *BMC Med Educ*. 2014;14:27. doi:10.1186/1472-6920-14-27.
31. Shanafelt TD, Gorringer G, Menaker R, et al. Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin Proc*. 2015;90(4):432–440.
32. Brown S, Gunderman RB. Viewpoint: enhancing the professional fulfillment of physicians. *Acad Med*. 2006;81(6):577–582.
33. Salyers MP, Flanagan ME, Firmin R, Rollins AL. Clinicians' perceptions of how burnout affects their work. *Psychiatr Serv*. 2015;66(2):204–207.
34. Linzer M, Manwell LB, Williams ES, et al. Working conditions in primary care: physician reactions and care quality. *Ann Intern Med*. 2009;151(1):28–36, w26–w29.
35. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Ann Surg*. 2010;251(6):995–1000.
36. Fernando AT III, Considine NS. Beyond compassion fatigue: the transactional model of physician compassion. *J Pain Symptom Manage*. 2014;48(2):289–298.
37. DiMatteo MR, Sherbourne CD, Hays RD, et al. Physicians' characteristics influence patients' adherence to medical treatment: results from the Medical Outcomes Study. *Health Psychol*. 1993;12(2):93–102.
38. 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(2):122–128.
39. Halbesleben JR, Rathert C. Linking physician burnout and patient outcomes: exploring the dyadic relationship between physicians and patients. *Health Care Manage Rev*. 2008;33(1):29–39.
40. Schloss EP, Flanagan DM, Culler CL, Wright AL. Some hidden costs of faculty turnover in clinical departments in one academic medical center. *Acad Med*. 2009;84(1):32–36.
41. Buchbinder SB, Wilson M, Melick CF, Powe NR. Estimates of costs of primary care physician turnover. *Am J Manag Care*. 1999;5(11):1431–1438.
42. Berry LL, Mirabito AM, Baun WB. What's the hard return on employee wellness programs? *Harv Bus Rev*. 2010;88(12):104–112, 142.
43. Baicker K, Cutler D, Song Z. Workplace wellness programs can generate savings. *Health Aff (Millwood)*. 2010;29(2):304–311.
44. West CP, Dyrbye LN, Rabatin JT, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. *JAMA Intern Med*. 2014;174(4):527–533.
45. Linzer M, Poplau S, Grossman E, et al. A cluster randomized trial of interventions to improve work conditions and clinician burnout in primary care: results from the Healthy Work Place (HWP) Study. *J Gen Intern Med*. 2015;30(8):1105–1111.
46. 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(11):1544–1552.
47. Sood A, Prasad K, Schroeder D, Varkey P. Stress management and resilience training among Department of Medicine faculty: a pilot randomized clinical trial. *J Gen Intern Med*. 2011;26(8):858–861.
48. Shapiro SL, Astin JA, Bishop SR, Cordova M. Mindfulness-based stress reduction for health care professionals: results from a randomized trial. *Int J Stress Manag*. 2005;12(2):164–176.
49. Goodman MJ, Schorling JB. A mindfulness course decreases burnout and improves well-being among healthcare providers. *Int J Psychiatry Med*. 2012;43(2):119–128.
50. Krasner MS, Epstein RM, Beckman H, et al. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA*. 2009;302(12):1284–1293.
51. Beckman HB, Wendland M, Mooney C, et al. The impact of a program in mindful communication on primary care physicians. *Acad Med*. 2012;87(6):815–819.
52. Shanafelt TD. Enhancing meaning in work: a prescription for preventing physician burnout and promoting patient-centered care. *JAMA*. 2009;302(12):1338–1340.
53. Hu YY, Fix ML, Hevelone ND, et al. Physicians' needs in coping with emotional stressors: the case for peer support. *Arch Surg*. 2012;147(3):212–217.
54. Herzberg, F. One more time: how do you motivate employees? 1968. *Harv Bus Rev*. 2003;81(1):87–96.
55. Ramirez JJ. The intentional mentor: effective mentorship of undergraduate science students. *J Undergrad Neurosci Educ*. 2012; 11(1):A55–A63.
56. Kashiwagi DT, Varkey P, Cook DA. Mentoring programs for physicians in academic medicine: a systematic review. *Acad Med*. 2013;88(7):1029–1037.
57. Salles A, Liebert CA, Greco RS. Promoting balance in the lives of resident physicians: a call to action. *JAMA Surg*. 2015;150(7):607–608.
58. The Joint Commission. 2002. <http://www.jointcommission.org/>. Accessed December 8, 2015.
59. Thompson WT, Cupples ME, Sibbett CH, Skan DI, Bradley T. Challenge of culture, conscience, and contract to general practitioners' care of their own health: qualitative study. *BMJ*. 2001;323(7315):728–731.