Physician burnout
A neurologic crisis

ABSTRACT
The prevalence of burnout is higher in physicians than in other professions and is especially high in neurologists. Physician burnout encompasses 3 domains: (1) emotional exhaustion: the loss of interest and enthusiasm for practice; (2) depersonalization: a poor attitude with cynicism and treating patients as objects; and (3) career dissatisfaction: a diminished sense of personal accomplishment and low self-value. Burnout results in reduced work hours, relocation, depression, and suicide. Burned-out physicians harm patients because they lack empathy and make errors. Studies of motivational factors in the workplace suggest several preventive interventions: (1) Provide counseling for physicians either individually or in groups with a goal of improving adaptive skills to the stress and rapid changes in the health care environment. (2) Identify and eliminate meaningless required hassle factors such as electronic health record “clicks” or insurance mandates. (3) Redesign practice to remove pressure to see patients in limited time slots and shift to team-based care. (4) Create a culture that promotes career advancement, mentoring, and recognition of accomplishments.

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GLOSSARY
AAN = American Academy of Neurology; EHR = electronic health records.

We have observed with growing concern that professional dissatisfaction among our peer neurologists is escalating. Neurologists cite the loss of the patient–physician relationship, the diminution of professional autonomy, and the onerous requirements to perform meaningless activities to meet the requisites of documentation standards, Meaningful Use criteria, and quality measures mandated by payers, including Medicare’s Physician Quality Reporting System. Many neurologists point to the added burdens of daily medical practice introduced by health information technology as exacerbating the problem. To avoid these sources of dissatisfaction, a few American Academy of Neurology (AAN) committee members have privately advocated the radical position of severing all ties with insurance entities and establishing a cash-only practice.

Whereas physician burnout has always existed, the evidence of growing professional dissatisfaction raises several questions: (1) Is the prevalence of burnout increasing because of the deleterious effects of dissatisfaction on careers, patient care, and the available workforce? (2) Is burnout more prevalent among neurologists? (3) Are there effective strategies to prevent, mitigate, or treat burnout?

Physician burnout encompasses 3 domains: (1) emotional exhaustion: the loss of interest and enthusiasm for practice; (2) depersonalization: a poor attitude with cynicism and treating patients as objects; and (3) career dissatisfaction: a diminished sense of personal accomplishment and low self-value. Whereas several techniques to measure burnout have been developed, the only validated scale is the Maslach Burnout Inventory, a 22-item questionnaire considered the gold standard tool for measuring burnout.1

Most studies of the prevalence of burnout focus on individual groups of physicians. In a study of chairs of obstetrics and gynecology, Gabbe et al.2 found that 56% of respondents...
demonstrated high levels of emotional exhaustion, 36% described high levels of depersonalization, and 21% reported low levels of personal accomplishment. One study of pediatric critical care specialists found that only 14% were classified as burned out. In a study of actively practicing surgeons in the United States, 32% described high levels of emotional exhaustion, 13% reported high levels of depersonalization, and 4% showed evidence for low personal accomplishment. Physicians in training are not immune to burnout. In one study of internal medicine residents, 76% demonstrated clear signs of burnout.

A national survey of 7,288 physicians evaluating the rates of burnout across specialties found that 45.8% of the respondents exhibited at least one symptom of burnout. Physicians fared much worse on all 3 domains of burnout compared to the general population. The incidence varied substantially by specialty. Neurologists ranked third—higher than family medicine. More than 50% of neurologists exhibited at least one symptom of burnout. Pediatrics, a specialty characterized by low income and high practice demands, fared much better, suggesting that the underlying causes of burnout are more complex than simply income or workload.

The high prevalence of burnout among neurologists raises questions as to its underlying causes, its consequences, and its prevention and reduction. The few investigations of the origins of burnout have failed to provide a comprehensive understanding of its risk factors. Several studies identified factors that correlate with burnout in select groups. A European study found that the perception of work, rather than the actual hours worked, correlated with emotional exhaustion and depersonalization. Mirvis et al. found that, among leaders of the Department of Veterans Affairs medical centers, burnout was predicted by younger age, lack of role clarity, and perceived inadequacy of resources. Among residents, higher debt burden was associated with higher rates of burnout, yet the rates were lower for international medical graduates.

Studies demonstrate that burnout impacts both physicians’ quality of life and patient care. Burnout is associated with loss of job satisfaction, withdrawal from practice to include relocation, reduced hours or early retirement, and major depression. In the same study, internal medicine residents indicated that “they had been responsible for one suboptimal patient care practice at least weekly or monthly compared with non-burned-out residents.” In one study, major errors reported by surgeons were strongly correlated with the surgeon’s degree of burnout and mental quality of life. In another surgical study, burnout was associated with lower patient satisfaction and longer postdischarge recovery times.

Thus, the deterioration in work satisfaction resulting from physician burnout is associated with a lack of empathy, medical errors, and poor patient outcomes.

Burnout has been linked to higher rates of depression and suicidal ideation. The suicide rate among physicians is substantially higher than in other professions, and is higher in women. Thus, burnout is an important component in the deterioration of personal and professional quality of life resulting from work dissatisfaction, and leads to relocation; reduced hours; a search for alternative employment, even outside of medicine; depression; and suicide.

Few studies have evaluated the efficacy of interventions to reduce physician burnout. Personal counseling and small-group facilitated discussion demonstrated some benefit. Practice redesign, as represented by team-based patient care in a fully staffed patient-centered medical home in which the team members worked at the peak of their competence, resulted in lower rates of burnout. Yet none of these studies provided comprehensive rigorously validated interventions to effectively reduce physician burnout.

Scholars have offered theoretical approaches to physician burnout, given the absence of a rigorous evidence-based approach and the urgency to address its personal consequences and resultant increase in physician errors. Burnout is not restricted to physicians and its analysis among other professionals may illuminate how and why it affects physicians. Psychologists studying workplace motivation have suggested several ways to view the workplace. One validated construct, Herzberg’s “Two Factor”
theory, is applicable to evaluate physician job satisfaction.\(^{20,21}\) Herzberg called his first factor “hygiene”: salary, fringe benefits, status, and job security. The absence of this factor leads to dissatisfaction but its presence does not guarantee job satisfaction. Thus, physicians’ perspectives do not define job satisfaction simply in terms of salary, benefits, job security, and other similar employment-related benefits. Herzberg called his second factor “motivators”: challenges, achievement, personal growth, and recognition, which, when present, lead to a greater overall sense of job fulfillment. In support of this view of work motivation, the apparent paradox of pediatricians can be understood in that the positive effect of overall job fulfillment exceeds the negative effect of low incomes and high workloads.

Of particular interest, in light of the current trends in health care, are Herzberg’s motivational factors of challenges, achievement, personal growth, and recognition. Many of these trends impact physicians’ perception of the recognition of their commitment and expertise. Physicians today are questioned by skeptical patients far more frequently than in the past. These changes in recognition and status are not solely the public’s perception. Insurers and administrators call physicians “service providers,” lumping them with others with far less training, skill, and responsibility. The trend towards increasing physician employment may satisfy physicians’ need for job security and the avoidance of addressing increasingly complex practice management challenges such as billing and information technology cost and expertise (Herzberg’s hygiene factor). But the transition to employment also creates pressures to increase productivity and to be viewed by administrators not as professionals but as a fungible resource to be managed. Loss of professional autonomy is accompanied by an increased accountability to the institution and to payers, licensing boards, and specialty certifying boards.

These trends also erode the sense of accomplishment of a job well done and personal growth. Physicians are pressured to reduce time with each patient, which leads to self-perception of poor job performance. Neurologists in particular are taught that the standard of care requires conducting a careful and through history and examination and the generation of a thoughtful assessment. At the Presidential Plenary Session at the 2013 AAN annual meeting, Dr. Jerome Posner emphasized that neurology remains one of the few specialties dependent on clinical assessment to reach a diagnosis and monitor patients. Obtaining a proper history and performing a thorough examination and skilled analysis require time. The pressure to decrease time with each patient, whether administrative or economic in origin, leads to erosion of practice fulfillment and a decline in quality care.

The implementation of electronic health records (EHR) provides benefits such as ready access to notes, laboratory tests, images, and ordering. Yet physicians universally perceive that entering notes and orders into many EHR also entails busywork with extra unnecessary and meaningless steps. Additionally, there is a striking mismatch between the goals of quality medical care and the documentation standards for billing.\(^{22}\) Creating a note that is adequate for billing does not guarantee a reasonable assessment of the patient. Recording a high-quality and comprehensive neurologic examination will often fall far short of meeting billing documentation standards.\(^{23}\)

Hassle factors, including insurance mandates, add to the daily burdens of medical practice and contribute to physicians feeling they are running on a time-pressured treadmill and detract from their sense of accomplishment. The American College of Physicians defined hassle factors as “the increasingly intrusive and often irrational administrative, regulatory review and paperwork burdens being placed on patients and physicians by Medicare and other insurers.”\(^{24}\) The growing number of insurance company mandates for payment is daunting and discouraging. Coding, documentation, differences in infrastructure requirements, preferred medications, and preauthorization vary among payers and continuously increase over time. Many physicians view required unnecessary meetings and other practice disruptions as intrusive and unproductive. While most institutions require quality measurements in both inpatient and outpatient practice, they often consist more of a paper shuffle than a meaningful effort to identify and correct quality and safety problems.
Physician wellness can be conceptualized as the desirable inverse of burnout. The Two-Factor theory informs both the steps to improve practice fulfillment and physician wellness, and to reduce burnout and its consequences. First, as Krasner et al. and West et al. suggested, there is a role for support and counseling of physicians, increasing empathy and adaptation to the stresses of practice including the uncertainty of change and work-life balance. Interventions can take the form of individual counseling or group sessions. Wallace et al. point out that physicians neglect their own health, including ignoring stress and burnout. Physicians often resort to denial or avoidance as an adaptation to stress, an ineffective method of dealing with stress that in the absence of counseling and support can lead to maladaptive coping strategies.

For physicians who lack recognition that a problem exists, attempts to create solutions by changes in practice routine are unlikely to be effective. Further, insight-producing counseling can lead to effective rather than maladaptive responses to the pressures and changes facing medicine.

Second, while physicians’ delivery of care is changing, as evidenced by the introduction of EHR and evolving models of payment, it is critical that these implementations are accomplished meaningfully in ways that promote true quality medical care. Specifically, EHR builds must reflect the needs of the specialty and quality measures that are captured must be seen as appropriate and contributing to the quality of care. Neurologists actively participate in quality measurement viewed as appropriate and contributing to outcomes, e.g., the acute stroke Get with the Guidelines. The key is that if physicians are required to participate in or implement any activity, it must be rigorously shown to improve quality or efficiency and not simply constitute an ineffective and irrelevant process exercise.

Third, doggedly protecting practice styles that were relevant in the past are unlikely to lead to practice fulfillment. Changes in medical systems will continue in the future given the perspective of Congress in furthering value in medicine, identifying quality and efficiency as a basis for payment, moving to greater transparency, and analyzing and comparing not only hospital systems but individual physicians. Practice redesign, as suggested by the Veterans Affairs study, has the potential to reduce burnout and improve practice fulfillment. Whereas much of the effort at practice redesign focuses on primary care, the same efforts are relevant to neurologists. The rapidly escalating employment of advance practice nurses and physician assistants is a reflection of this evolution. Team-based care is relevant to neurologic practices of all sizes and compositions. Team-based care breaks down many of the traditional silos in medicine. For example, in stroke care, an effective team includes emergency medical technicians, nurses, therapists, neurologists, rehabilitation specialists, and home care personnel who are trained in stroke care, constituting a team that is well beyond traditional neurologic practice.

Finally, medical systems should provide physicians a culture of personal growth, recognition, and personal accomplishment. The medical professional has a poor record of mutual support and peer feedback. For academic departments, active mentoring of individuals at all stages of their career is important to assure professional satisfaction. The recognition of individuals’ contributions and accomplishments should be routine. Leaders of practices of all sizes should create a sense of community and recognize and mitigate the stresses that lead to burnout. Medical administrators should focus on physician wellness with active attempts to prevent the full spectrum of factors that contribute to burnout. At the institutional level, payer level, and licensing or specialty boards, consideration should be given to introducing measures of physician wellness.

The prevalence of burnout is high among neurologists compared to other specialties and currently exceeds 50%. Burned-out physicians have poor job satisfaction and lack empathy, withdraw from the practice, and have a documented higher error rate and poorer patient outcomes. The few empirical studies and theoretical analyses of work motivation suggest 4 categories of preventive interventions: (1) counseling of physicians; (2) avoiding meaningless tasks and reducing hassle factors, particularly with EHR; (3) practice redesign and
mentoring; and (4) fostering personal growth and recognizing accomplishments. It is incumbent on all of those responsible for the design of medical practices to work toward implementing a culture of physician wellness that accomplishes these 4 goals, not only for the welfare of physicians, but for that of the health care community and the quality of medical care. The rapid ongoing changes in the health care delivery system provide an opportunity for a proactive and thoughtful effort to accomplish these goals.

AUTHOR CONTRIBUTIONS
Bruce Sigsbee: drafting/revising the manuscript, study concept or design, accepts responsibility for conduct of research and final approval. James L. Bernat: drafting/revising the manuscript, accepts responsibility for conduct of research and final approval.

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