Special Article

Provider Health and Wellness

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Provider health and wellness is a significant issue and can impact patient care, including patient satisfaction, quality of care, medical errors, malpractice risk, as well as provider and office staff turnover and early retirement. Health and wellness encompasses various areas including burnout, depression, divorce, and suicide and affects providers of all specialties and at all levels of training. Providers deal with many everyday stresses, including electronic health records, office politics, insurance and billing issues, dissatisfied patients, and their own personal and family issues. Approximately half of all physicians suffer from burnout, and the rate of burnout among physicians of all specialties is increasing. An important first step in dealing with burnout is recognition and then seeking assistance. Strategies to prevent and treat burnout include increasing provider resiliency as well as implementing practical changes in the everyday practice of medicine. There is currently very little data regarding health and wellness specifically in the field of allergy and immunology, and studies are necessary to determine the prevalence of burnout and related issues in this field. Many medical specialties as well as state and national medical associations have health and wellness committees and other resources, which are essential for providers. Health and wellness programs should be introduced early in a provider's training and continued throughout a provider's career. © **2017 American Academy of Allergy, Asthma & Immunology (J Allergy Clin Immunol Pract 2017;5:1543-8)**

Key words: *Health; Wellness; Burnout; Depression; Suicide; Exhaustion; Depersonalization; Addiction; Retirement; Personal accomplishment; Allergy and immunology; Provider; Physician; Nurse; Stress; Divorce; Mindfulness; Emotions*

"Before you can help others, you must help yourself." This is a common quote of unknown exact origin. Health care providers' overall goal is to help patients. However, what about care of the provider? Provider health and wellness is a significant issue and can impact patient care, including patient satisfaction, quality of care, medical errors, malpractice risk, as well as provider and office staff turnover and early retirement.[1] Provider health is also impacted with issues including provider alcohol and drug abuse, addiction, and suicide.[1] Health and wellness encompasses various areas including burnout, depression, divorce, and suicide and affects providers of all specialties and at all levels of training.[1] In the current and future health care climate with providers under an increased amount of stress, provider health and wellness is going to become an even more significant topic.

BURNOUT

Maslach and Leiter[2] at the University of San Francisco defined burnout as "an erosion of the soul caused by a deterioration of one's values, dignity, spirit, and will." The 3 main symptoms of burnout are exhaustion, depersonalization, and lack of efficacy, or personal accomplishment (Table I).[1] Exhaustion involves decreased physical as well as emotional energy levels.[1]

Stedman's Medical Dictionary defines depersonalization as a state in which the normal sense of personal identity and reality is lost, characterized by feelings that one's actions and speech cannot be controlled. Depersonalization leads to sarcasm, cynicism, and venting about patients or career.[2] Lack of efficacy, or personal accomplishment, refers to a feeling of one's work not making a difference.[1] Causes of burnout are multifactorial and include the stress of practicing medicine, medical education itself, and stress from management and supervision.[1]

In a study published in 2012, 7,288 physicians in the United States completed the Maslach Burnout Inventory, a validated 22-question assessment of burnout, measuring exhaustion, depersonalization, and lack of personal accomplishment.[3] A total of 45.8% of the physicians reported at least 1 burnout symptom (exhaustion, depersonalization, or lack of personal accomplishment).[3] As compared with a probability-based sample of working US adults, physicians were more likely to have burnout symptoms (37.9% vs 27.8%) and were more likely to be disappointed with work-life balance (40.2% vs 23.2%).[3] Individuals with a high school, bachelor's, master's, or other professional degree (besides MD or DO) had lower rates of burnout compared with physicians.[3] Among the medical specialties, highest rates of burnout were noted in emergency medicine, general internal medicine, neurology, and family medicine.[3] Lowest rates of burnout were noted in pathology, dermatology, general pediatrics, and preventive medicine.[3] Of note, internal medicine and pediatric subspecialties (no specific data were mentioned with regard to the individual subspecialties) had lower rates of burnout compared with the mean burnout of all physicians.[3] A lower overall risk of physician burnout was noted with increasing age and being

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Conflicts of interest: The authors declare that they have no relevant conflicts of interest.
Received for publication May 4, 2017; revised May 26, 2017; accepted for publication May 31, 2017.
Available online July 19, 2017.
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2213-2198

http://dx.doi.org/10.1016/j.jaip.2017.05.025

TABLE I. Basic elements of burnout

Exhaustion (physical and emotional)
Depersonalization
Lack of efficacy or personal accomplishment

married.[3] A systematic review among the surgical subspecialties revealed that plastic and vascular surgeons demonstrated lowest career satisfaction.[4] A survey by the American Academy of Pediatrics noted a 22% burnout rate among pediatricians.[5] A survey of 465 faculty physicians in the department of internal medicine at a large academic center revealed a 34% burnout rate.[6] Another study, the Physician Worklife Study, involved about 6,000 physicians in primary and specialty care.[7] Compared with their male counterparts, female physicians were 60% more likely to experience burnout.[7] With regard to geographic regions, a physician survey noted more perceived burnout in the Northeast region of the United States (46%) as opposed to West (32%), Midwest (31%), and South (31%).[8] Physician burnout rates have been shown to be increasing over the last few years.[9] Burnout has been linked to early physician retirement, and a study in Canada revealed an estimated cost of $213 million due to physician burnout ($185 million due to early physician retirement and $28 million due to decreased clinical hours).[10]

Causes of burnout

It has been postulated that causes of burnout are associated with 4 values attributed to physicians: service, excellence, curative competence, and compassion (Table II).[11] The belief in service and sense of duty can lead to self and/or family sacrifice and deprivation.[11] The expectation of excellence can lead to perfectionism.[11] Curative competence refers to taking responsibility for patient outcomes, and this can lead to a perception of omnipotence and intolerance for ambiguity in diagnosis.[11] Compassion can lead to a suppression of emotions and eventually, emotional isolation.[11]

Beside these physician-attributed values, other practical contributing factors for burnout include excessive workload, inefficiency in practice environment, and clerical burden (Table II).[12] In an observation study of 57 physicians, it was found that 33% of time was spent in direct clinical care, whereas 49% of time was spent doing clerical work and dealing with the electronic health record.[12] In a 2015 *Medscape Physician Lifestyle Report*, physicians ranked bureaucratic tasks, hours at work, and insufficient income as the top 3 causes of burnout.[13] In a 2016 survey of physicians, increased clerical tasks, increased productivity requirements/expectations, and reimbursement issues were the top 3 causes of burnout (Table II).[8]

TABLE II. Causes of burnout

Practical contributing factors
Clerical burden
Increased work productivity requirements and expectations
Reimbursement issues
Stress of practicing medicine
Medical education
Stress from management and supervision
Provider-attributed factors
Belief in service and sense of duty
Expectation of excellence
Curative competence
Compassion

Burnout in medical training

Burnout starts at the beginning of medical education.[1] A study involving 2248 medical students at 7 US medical schools using the aforementioned Maslach Burnout Inventory revealed a burnout rate of 49.6%.[14] A total of 40.1% of students had high rates of emotional exhaustion, 31.8% had high depersonalization, and 30.6% had low perception of personal accomplishment.[14] A 1-year follow-up survey revealed that 26.8% of responding students had recovered from burnout.[14] Another study of 1701 medical students from 5 US medical schools revealed a burnout rate of 47%, and 49% had positive screening for symptoms of depression.[15] Mental quality-of-life scores of medical students (43.1%) were lower than those of age-matched general population sample (47.2%).[15] The prevalence of burnout was higher among nonminority medical students compared with minority students (39% vs 33%), but rates of depression were similar.[15] Minority students did indicate racial discrimination, feelings of isolation, and distinctive cultural expectations as causes for unfavorable medical school experiences.[15]

After medical school, burnout also occurs in residency.[16] One study of 115 internal medicine residents using the Maslach Burnout Inventory revealed that 76% had burnout.[16] Moreover, residents with burnout were more likely to report suboptimal patient care practices (such as making medication or treatment errors or discharging a patient earlier than medically required) than were residents without burnout.[16] Another survey among residents of various specialties in Israel reported increased burnout scores during their intern years.[17] A study in the Netherlands linked work schedule, amount of workload, and reliance on supervising attending as contributing to resident burnout.[17] Surgery residents had a higher rate of burnout than surgical attendings across the surgical subspecialties, including otolaryngology.[4]

Burnout in nursing and extended care providers

Other health care providers besides physicians are at risk for burnout.[18] One study among 10,184 hospital nurses reported that 43% had high emotional exhaustion and 41% were not satisfied with their current job.[18] Higher patient per nurse ratios correlated with increased risks of burnout and job dissatisfaction.[18] Another study among 1,380 primary care nurses reported a 36.7% burnout prevalence.[19] Many physicians of all specialties work with extended care providers, including physician assistants. One study used a modified Maslach Burnout Inventory involving 230 physician assistant students and found higher rates of depersonalization in younger students and in those with children.[20] Another study of rural physician assistants reported elevated emotional exhaustion and depersonalization rates as well as low levels of personal accomplishment.[21]

Provider depression and addiction

A predictable consequence of burnout for many providers is depression, which may lead to addiction, divorce, or suicide. Although the prevalence of depression among practicing physicians is unknown, recent systemic reviews and meta-analyses of medical students and residents revealed a depression rate of 27% and 29%, respectively.[22,23] This is higher than the rate in the general population. A total of 15.7% of these medical students sought psychiatric treatment.[22] In the entire group, the pooled rate of suicidal ideation was 11%.[23] Resident depression led to

increased medical errors and low-quality patient care. It is reasonable to postulate that practicing physicians may have a higher rate of depression, because that group would include recent trainees as well as aging practitioners. Further confounding the estimate of depression prevalence is the fact that many practicing physicians hide depression or other affective disorders. This is due to the fear of being deemed "impaired" with subsequent censure by licensing boards, difficulty with hospital credentialing, and loss of confidence in them by their peers. The old paradigm is that physicians "are to be ashamed not only of the condition, but of seeking treatment for it, which our culture views as a sign of weakness."[24]

In a 1992 position paper regarding substance abuse among medical trainees, the American College of Physicians acknowledged the limited data about the prevalence of this in medical students and residents.[25] At that time, most but not all studies showed that the rate of alcoholism among practicing physicians did not differ from that in controls, whereas other substance abuse was higher, presumably due to ease of access.[25] Unfortunately, a more recent literature review concluded that newer data were incomplete, so that reporting of accurate current prevalence rates of substance abuse among physicians and medical students is not possible.[26] Although newer technologies make obtaining narcotics in the hospital more difficult, physicians are not exempt from the ongoing opioid abuse epidemic. Tramadol, an unscheduled analgesic, is frequently abused by physicians, when opioids are unavailable.[27] In one study, alcohol was the most abused substance by physicians in Alabama and Michigan, followed by hydrocodone, meperidine, and tramadol.[27] Despite the paucity of data, there is no doubt that physicians and medical students become impaired when abusing alcohol or other substances and risk harming themselves and their patients.[26]

Provider divorce

A physician value associated with burnout, namely, the belief in service and sense of duty leading to self and/or family sacrifice and deprivation, might increase the physician's risk of divorce. Early studies seemed to support this idea, but later studies showed mixed results. Many were of limited value because of small sample sizes and homogeneous study populations. For example, a 20-year-old study from Johns Hopkins sought to investigate factors associated with divorce in their medical school graduates.[28] The cumulative rate of divorce was highest for psychiatrists (50%) and surgeons (33%) and lowest for internists, pediatricians, and pathologists (22%-24%).[28] Other factors associated by multivariate analysis with higher divorce risk included marriage before medical school graduation, less perceived emotional closeness to one's parents, higher anger levels, and a later year of marriage.[28] This study did not assess marital quality.

A recent analysis of census survey data seems to disprove that physicians have a higher divorce rate than does the general population.[29] Participants included approximately 49,000 physicians, 10,000 dentists, 14,000 pharmacists, 159,000 nurses, 19,000 health care executives, 59,000 lawyers, and over 6 million other non−health care professionals.[29] Analyses showed that the divorce prevalence (at 24.3%) among physicians was the second lowest after pharmacists (at 22.9%).[29] In contrast, there was a 35% divorce prevalence among non−health care professionals.[29] Nurses and health care executives also had substantially higher divorce prevalence compared with physicians.[29] Among physicians, women had 1.5 times the prevalence of divorce, compared with their male counterparts.[29] In addition, an association of longer weekly work hours with increased divorce prevalence was found only for female physicians, likely due to increased home responsibilities requiring greater professional adjustments.[29] Survey data revealed that women surgeons were more likely to have work-home conflicts and to report burnout and depression.[30] Neither of these surveys addressed marital quality, which in a study of 891 physician spouses was strongly associated with time spent awake with their physician partner and number of call nights per week, but not total weekly work hours, specialty, or type of practice.[29,31]

Provider suicide

In a heartfelt essay, David Muller, MD, dean for medical education at Icahn School of Medicine, recounts the suicide of Kathryn, a fourth-year medical student, on August 17, 2016, just 2 days after the start of a new first-year class.[32] He reports subsequent efforts by the school to improve student well-being, to eliminate the stigma of asking for help, to increase staffing to expand access to mental health care, and to start a program for an annual mental health assessment for every student and resident.[32] Despite these efforts he argues that "they will fall far short of addressing one of the causes of this national epidemic of burnout and depression and suicide: a culture of performance and achievement that for most of our students begins in middle school and relentlessly intensifies for the remainder of their adult lives."[32] Among medical students, overall suicide rates are higher than in an age-matched population; female and male medical students commit suicide at the same rate, whereas in the general population rates among males are much higher.[33] To assess the frequency of suicidal ideation and how it relates to burnout among medical students, Dyrbye et.al[14] studied a diverse population of 2,248 students at 7 medical schools, finding that 10% experienced suicidal ideation during medical school. A total of 50% of the students had burnout, which seemed associated with an increased risk of suicidal ideation, whereas those who recovered from burnout had less suicidal ideation.[14] Current guidelines to promote mental health among residents and fellows include specific recommendations for education, screening, and treatment.[34]

Earlier studies of suicide rates and risk factors were mixed in regard to whether male physicians had higher suicide rates than the general population, but female physicians were shown to have 3 to 4 times higher suicide rates compared with the general population.[35] In the 1980s, women physicians who committed suicide tended to be younger, have more affective disorders, have less choice of specialty, lower incomes, and lower academic rank when compared with male physicians who committed suicide.[35] The combined results of 25 studies suggested that suicide rates compared with the general population were 40% higher for male physicians and 130% higher for female physicians, citing evidence linking sexual harassment to depression and suicide attempts.[33]

The AMA-APA Physician Mortality Project, published in 1987, reported the following attributes in the profile of suicide-prone physicians: they often signaled their intentions, had awareness of emotional problems and motivation to escape mental pain, had depression, often self-medicated, had a history of drug abuse, had social problems related to alcohol, and a difficult childhood and troubled family of origin.[36] Others noted a history

of "perfectionistic standards and harsh self-criticism" in physicians who committed suicide.[37] Predisposition to suicidal ideation or attempted suicide may be characterized by personality traits of overzealousness, an inability to relax or to acknowledge personal limits, and by genetic vulnerability to depression.[38] Physicians who attempt suicide, most often by drug overdose, are more likely to succeed than are nonphysicians.[39] There is little current evidence to support that there is a difference in suicide rates among medical specialties.[37] Most physicians and other providers know of a colleague who tragically ended their own life. This scourge has not spared the specialty of allergy and immunology.

Data on prevention and treatment of burnout

Physicians have cited decreased quality of patient care as the most important reason to address burnout.[8] Other reasons include health care team attitude effect, turnover, decreased patient satisfaction, and reduced productivity.[8] One thought to potentially reduce stress and burnout among physicians in training was to reduce the number of resident work hours in the United States in 2003.[40] A study designed to quantify the effect of reduced work hours on burnout involved 24 faculty members and 37 residents at an urban, university-based surgical department.[40] The participants completed the Maslach Burnout Inventory before (working ~101 hours in a week) and after the implementation of an 80-hour work week.[40] Despite the reduction in work hours, the rates of emotional exhaustion, depersonalization, and personal accomplishment did not significantly change.[40]

A recent meta-analysis of 19 controlled interventions on burnout involving 1,550 physicians analyzed physician-led interventions (including mindfulness-based stress reduction techniques, educational interventions, and exercise) and organization-led interventions (including rescheduling work shifts and reducing workload).[41] Both interventions were associated with decreased burnout scores, but in particular, organization-led interventions had more of an effect on burnout.[41] One study performed an intervention with a stress management workshop involving medicine and pediatrics residents at a university hospital in the United States.[42] The half-day workshop emphasized interpersonal skills, work-life prioritization, stamina-increasing techniques, recognition and avoidance of harmful reactions, and positive outlook skills.[42] Six weeks after the workshop, the residents who participated in the workshop had improvement in emotional exhaustion scores and had less depersonalization than ones who did not participate.[42] Another intervention involved a continuing medical education course among 70 primary care providers in the northeastern United States.[43] The course included mindfulness meditation, self-awareness exercises, discussion of meaningful clinical experiences, and appreciative interviews.[43] Participants in the program noted improvement in all 3 burnout measures of emotional exhaustion, depersonalization, and personal accomplishment as well as improved mood.[43] One study in Canada assessed strategies to reduce burnout among family physicians and found that the strategies used by physicians most in coping with high stress levels and burnout were appreciating relationships with patients and participating in continuing medical education.[44]

Prevention and treatment of burnout

Providers putting themselves first at times is necessary (Table III).[1] Skills to combat burnout include increasing resiliency, the ability to come back from the stress of a clinical environment, and even coming back stronger than before.[45] Adequate sleep, nutrition, and exercise are generally good techniques for anyone, but they can also improve provider resiliency.[11] Other techniques to strengthen resiliency include providing a confidential forum for peers to interact to prevent isolation and practicing mindful self-awareness (awareness of stress) and responding with self-compassion and an increase in emotional knowledge to combat this stress.[11] In addition, observing empathy for patients but not allowing the empathy to deplete one's emotional levels and focusing on positivity are also useful techniques to enhance resiliency.[11] Finding a sanctuary outside of medicine, including hobbies that one truly enjoys, is also important.[1] Addressing a patient's spirituality as well as one's own spirituality can be helpful in connecting with both a patient and onself.[46] These techniques can lower provider stress levels and improve the capacity to refresh energy levels to help prevent and treat burnout.[1] Of course, seeking professional help for any mental health issues and/or substance abuse issues is vital. Removing questions on medical licensing applications regarding diagnosis or treatment for mental health conditions may be useful because these can discourage some providers from seeking help.[12] In addition, further input from providers regarding health care regulations and the simplification of billing and quality reporting documentation on the part of providers can be helpful.[12]

TABLE III. Prevention and treatment of burnout

Maintaining adequate sleep, nutrition, and exercise
Finding a sanctuary outside of medicine
Addressing spirituality
Addressing physical, emotional, and/or substance abuse issues
Seeking professional counseling and mental health care

Practical everyday tips in medical practice to reduce burnout

Providers deal with many everyday stresses, including electronic health records, office politics, insurance and billing issues, dissatisfied patients, and their own personal and family issues (Table IV). Simply recording things one is grateful for at the end of each day can help increase positivity in the practice of medicine.[11] Taking the time during a typical workday to rediscover one's "calling," or reason for why one decided to practice medicine, can help one refocus and de-stress.[47] Focusing on the psychosocial aspects of a dissatisfied patient may give a new sense of what is motivating the patient.[47] In addition, focusing on the psychosocial aspects of support staff and coworkers may help a provider gain new insight and empathy for them, leading to improved relationships. Having more patience in daily workflow activities and in general can have positive effects.[47] Having a sense of humor throughout the workday can also help.[48] Embracing the positive aspects of an electronic medical record rather than focusing on the negative ones can be impactful.[49] Delegating and having staff members help the provider document and even using a scribe can also help providers focus on the patient during the visit and reduce nonclinical tasks.[49] Taking breaks for oneself during the workday and taking breaks from electronic devices can help recharge energy levels. Last, meeting with the members of the health care team once or

TABLE IV. Practical everyday tips in medical practice to reduce burnout

Taking time during the workday to rediscover the reason(s) for going into health care
Recording things one is grateful for at the end of each workday
Embracing the positive elements of an electronic health record and/or billing service
Focusing on the psychosocial aspects of patients and support staff to gain further empathy
Having more patience in daily workflow activities
Delegating nonclinical workload tasks
Using a scribe to document clinical tasks
Taking breaks during the workday, including breaks from electronic devices
Meeting with members of the health care team regularly to discuss and mitigate potentially stressful situations
Maintaining a sense of humor

twice daily can be helpful in discussing and tackling various stressful issues before they magnify.[49]

Health and wellness in allergy and immunology

Wellness issues such as burnout affect all medical specialties including allergy and immunology (Table V). However, there is very little data regarding health and wellness specifically in the field of allergy and immunology. This is a definite unmet need. Studies are necessary to determine the prevalence of burnout and related issues in our field. Based on previous studies, surveys can be performed on local and national levels through allergy/immunology organizations to determine the extent of burnout in our specialty. In addition to prevention and treatment measures mentioned above, using specific data from allergists and immunologists can help customize interventions for practitioners in our field. Establishment of health and wellness committees and/or workgroups in both local and national allergy and immunology organizations will also be beneficial to providers. Health and wellness workshops and continuing medical education courses can also be instrumental assets in promoting awareness on this topic.

CONCLUSIONS

In the current and future health care climate, provider stress is high and will likely only increase. Burnout is common among providers across all medical specialties and is increasing.[9] The consequences of burnout can lead to worsening patient care, patient dissatisfaction, medical malpractice, as well as provider depression, early retirement, and suicide.[1] Just working harder and churning through patients and paperwork will likely only compound the burnout problem.[1] However, reducing the number of work hours and adding additional providers may not be enough to decrease burnout.[40] As discussed above, "looking inward" and implementing small, everyday changes in medical practice can be helpful.[49] An important first step in dealing with burnout is recognition and then seeking assistance. Many medical specialties as well as state and national medical associations have health and wellness committees and other resources, which are essential for providers. Health and wellness programs should be introduced early in a provider's training and continued throughout a provider's career.

TABLE V. Recommendations for provider health and wellness in allergy and immunology

Obtaining additional data among allergy/immunology practitioners regarding health and wellness issues using surveys on local and national levels
Establishing committees/workgroups on provider health and wellness in local, state, regional, and national allergy/immunology organizations
Introducing this topic at the medical school, residency, and allergy/immunology fellowship levels
Offering health and wellness education, including continuing medical education, in the forms of seminars, workshops, and other discussions at local, state, and national allergy/immunology meetings

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