Medical Professionalism Best Practices:

Addressing Burnout and Resilience in Our Profession

Edited by
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Alpha Omega Alpha Honor Medical Society

Dedicated to the members of Alpha Omega Alpha Honor Medical Society and the medical profession.

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Preface

Burnout and Resilience in Our Profession

Richard L. Byyny, MD, FACP, and George E. Thibault, MD

> Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.
>
> — Viktor E. Frankl[1]

Authors' Note: The following is a compilation from presentations, discussions, and conversations that occurred during the 2019 AΩA Professionalism Conference. It represents the views of the authors as well as the core tenets of AΩA.

Professionalism in medicine has been a core value for Alpha Omega Alpha Honor Medical Society (AΩA) since the society's founding in 1902. Demonstrated professionalism is one of the criteria for election to membership in AΩA.

Medicine is based on a covenant of trust, a contract we in medicine have with patients and society. Medical professionalism stands on the foundation of trust to create an interlocking structure among physicians, patients, and society that determines medicine's values and responsibilities in the care of the patient and improving public health.

It starts with physicians understanding their obligations and commitments to serving and caring for people, especially those who are suffering. Physicians must put patients first, and subordinate their own interests to those of others. They should also adhere to high ethical and moral standards, and a set of medical professional values. These values start with the precept of "do no harm." They include a simple code of conduct that explicitly states: no lying, no stealing, no cheating, and no tolerance for those who do. The Golden Rule, or ethic of reciprocity, common to many cultures throughout the world—"one should treat others as one would like others to treat oneself"—should be the ethical code or moral basis for how we treat others.

In 2000, The Royal College of Physicians and Surgeons of Canada (CanMEDS) stated it well:

> Physicians should deliver the highest quality of care with integrity, honesty, and compassion and should be committed to the health and well-being of individuals and society through ethical practice, professionally led regulation, and high personal standards of behaviour.[2]

Today is a very exciting time in medicine and medical education. There have been more changes in the last decade than in the past 50 years. While much of the change is for the better, there could be unintended consequences that threaten professionalism, such as the burnout many of our colleagues have experienced, and are experiencing. One of these changes that has raised concerns and possibly increased the incidence of burnout is the trend toward more physicians being employed by large organizations, and the commercialization and businessification of medicine.

In addition, begun in 2010, the Beyond Flexner Alliance focuses on health equity and the social mission of health professions education. Work is being done to develop a more equitable health care system through an enhanced awareness of the role of our academic institutions in teaching and modeling our professional responsibilities to society.[3]

The joy in the care of the patient is in caring for the patient. Jack Coulehan, MD (AΩA, Emory University, 1974), wrote:

> The rapid progress in medicine has indeed yielded an astonishing harvest of improvements in our patients' health.... Medical practice provides a rich opportunity to experience empathy, hope, solidarity, compassion, and self-healing. Our profession gives us privileged access to deep bonds of humanity we share with our patients. Traditionally, physicians have considered this fulfillment one of the chief rewards of our profession.[4]

And, Sir William Osler said:

> Nothing will sustain you more potently than the power to recognize in your humdrum routine...the poetry of the ordinary man, of the plain, toil-worn woman, with their loves and their joys, their sorrows, and their griefs.[5]

Today, more physicians report dissatisfaction with the profession, and many report suffering from burnout. Perhaps all physicians who have given of themselves for their patients and society with empathy, hope, and compassion have wondered why they continue in the profession. For many, their focus on healing and caring can be met with frustration formed by an uncaring profit-driven system with myriad barriers. Some physicians may feel ignored, misunderstood, criticized, and devalued.

However, nearly every physician has memories of the joy of medicine, caring for their patients, and one particular patient who reminds them of why they entered the profession of medicine.

Burnout in Medicine

Yet, it is estimated that more than 50 percent of physicians in the United States have at least one symptom of burnout.[6] Burnout has been associated with reduced or poor job performance, clinical illness, cognitive impairment, mental errors, lack of attention and

concentration, absenteeism, and thoughts of quitting or changing one's job and/or occupation. The total cost of recruiting a physician can be $90,000, with the lost revenue for that physician between $500,000 and $1 million.[6] Turnover begets more turnover, and those left behind are managing increased stress.

Although burnout has existed for generations, the businessification and commercialization of medicine have brought it to the forefront for today's physicians. Medicine is now, and always has been, a demanding profession with immense responsibility to patients and society. However, as physicians, we must remember why we became physicians, why we care, and why we strive to "be worthy to serve the suffering."

Burnout and a lack of resilience are often associated with stress. In 1997, Leiter and Maslach identified six major influences on burnout:

1. Workload and its intensity, time demands, and complexity;
2. Lack of control of establishing and following day-to-day priorities;
3. Insufficient reward and the accompanying feelings of continually having to do more with less;
4. The feeling of community in which relationships become impersonal, and teamwork is undermined;
5. The absence of fairness in which trust, openness, and respect are not present; and/or
6. Conflicting values, in which choices that are made by management often conflict with their mission and core values.[7,8]

Each of these influences are external to the individual, and typical of most medical environments today. Physician performance is often related to how many relative value units (RVUs) are billed, financial accomplishments to increase organizational revenue, and Press Ganey patient satisfaction survey scores. These performance factors are expected to be accomplished via reduced patient contact time, and diminished collegial interactions and consultation time, in an environment of demanding regulatory and legal requirements.

The Business of Medicine

The "business of medicine" does not take into consideration the patient, patient outcomes, the doctor-patient relationship, medical professionalism, or physician satisfaction and accomplishments. Physician output and success is often related to high volumes of work—RVUs, strict deadlines, an unyielding focus on technology, and the electronic health record (EHR). It is estimated that for every one hour spent with patients, nearly two hours are spent on the EHR, with another hour or two during personal time entering information in the EHR.[7]

Burnout can also be influenced by societal factors, individualized factors, a loss of support systems, changing values, and a lack of personal and/or professional recognition.

While it is experienced by the individual, it can also affect co-workers, family, social networks, colleagues, and patients.

There are many screening tests used for burnout, but the most common and validated is the Maslach Burnout Inventory (MBI).[8]

The problems we are currently encountering that contribute to burnout were anticipated by sociologists who posed that bureaucratic and professional forms of organizing work are fundamentally antagonistic.[9] Medical schools do not yet prepare graduates to be practitioners who can best resist the bureaucratic and market forces shaping health care and the care of the patient.

Burnout in medicine was anticipated by Relman's concerns about the emergent medical industrial complex, and by Starr's concerns about medicine's sovereignty.[10,11] Physicians experience conflict between what they aspire and should do, and what they have been educated and socialized to do. They have been professionalized for acquiescence, docility, and orthodoxy. They are taught to be more like sheep than cats—ultra-obedient following the rules. They are not taught to be cats—independent activists defending and advocating for medical values.

Bureaucracies are good at identifying and implementing common solutions to common problems; e.g., a profit and loss system based on consistent products with limited variability, but not very good in situations with variable contingencies and complexities as they attempt to apply standard solutions to non-standard circumstances. We have prepared physicians to follow the rules; however, whose rules? The rules generated by the profession? Or the rules generated by the organization with different values, and objectives?

As a result, physicians see professionalism more about conformity. This creates a conflict in the current health care system and organizations. Physicians seem to be perverting core principles of the profession to a just-follow-the-rules framing and practice of medical professionalism. We are essentially responsible for the problems we now encounter, especially when the care of the patient is often not the focus.

The impact of business, corporations, industry, markets, and finance for profit is real and appreciable. All of these influence and exert pressure on how care is provided, and how work is carried out and valued. The rules are not being set by professionals, but by organizational priorities related to finances and the concept of profit. A professionalism that fails to dissect and distinguish itself from its two counterparts is a professionalism that is conformist and does not resist the pernicious elements of markets and bureaucracy.

We need cats who will resist conformity in service of extra-professional forces. The mission and resistance is about saving health care for patients and society, and enabling our profession and colleagues to care for patients and not experience burnout.

Self-evaluation

Physicians need to self-evaluate, and watch for signs of burnout in themselves and their colleagues. Self-reflection and honesty are useful in self-evaluation. Commitment

to work, self-efficacy, learned resourcefulness, and hope may help with resiliency, and increased job control.

Cognitive-behavioral therapy improves coping and mental health by development of personal coping strategies that target solving problems and changing unhelpful patterns in thoughts, beliefs, attitudes, behaviors, and emotional regulation. This uses mindfulness-based approaches and therapies that are problem focused and oriented to actions that are helpful in treatment and prevention.

Lilly Marks, immediate past president of the Association of American Medical Colleges, recently presented the Chair's Address at the 2019 annual meeting of the association. During her presentation she told a very personal story of resilience:

> Few people know that I was born in a refugee camp in Germany following World War II. Both of my parent were Holocaust survivors. My father survived Auschwitz, my mother, Bergen-Belsen.
>
> My father repeatedly told me, "Lilly, to survive life's difficult challenges, you can never think of yourself as a victim."
>
> Too often, people see themselves as victims of all types of environmental and human challenges. He cautioned, if you believe you are a victim, it diminishes your resiliency. If you believe your fate is in someone else's hands, it inevitably weakens your response. Over time, it makes you feel powerless, thinking your actions don't matter or affect the outcome.
>
> The key to resilience and survival, he explained, is confronting your challenges every day with the courage, tenacity, and the faith that what you do, and how you do it, makes a difference.
>
> What defines you are not the challenges that befall you. What defines you is how you respond.[12]

The Practice of Medicine

Efforts in medical professionalism and resilience continue to be a work in progress. As physicians, we are continually learning about medical professionalism, and how to maintain and improve the standard of physician behavior. We need to remember that we call our work "the practice of medicine" because we are always practicing our profession to learn and improve. Our goal is not perfection, but continuous learning, improvement, and focusing on what is best for the patient.

We are committed to focusing our efforts at AΩA, and defining our role in the development of professionalism in medicine. Many AΩA members are leaders in medicine, and we need to recognize that development of effective leadership in medicine must always be grounded in professional values. The combination of leadership and professionalism is the basis for a synergistic and positive impact on our profession.

To continue the development and ongoing scholarship of medical professionalism, AΩA hosts a biennial Professionalism Conference bringing together leaders in the field of medical professionalism. In February 2019, more than 25 medical educators

and specialists in medical professionalism, physician burnout and resiliency came together in Denver for three days to discuss Medical Professionalism Best Practices: Addressing Burnout and Resilience in Our Profession. The meeting was co-chaired and moderated by Samantha Dizon, MD, Douglas S. Paauw, MD, Sheryl Pfeil, MD, and Kathleen Ryan, MD.

The conference presenters shared personal, heartrending, intimate stories of their struggles combating burnout. Many of their stories had never before been told in public. They agreed to share their experiences with the hope of helping others in their profession. The outcome of the conference and presentations is the monograph *Medical Professionalsm Best Practices: Addressing Burnout and Resilience in our Profession*.

It is AΩA's hope that the 2020 monograph, "Medical Professionalism Best Practices: Addressing Burnout and Resilience in Our Profession" will aid practitioners, medical schools, professional organizations, and all involved in health care to better care for themselves, and contemporaneously their patients.

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Chapter 1

Burnout and Resiliency

Richard L. Byyny, MD, FACP

> Time, sympathy, and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.
>
> — Dr. Francis W. Peabody (ΑΩΑ, Harvard Medical School, 1906)[1]

The medical profession has developed clear and explicit professional expectations for all physicians, and a commitment to respect and uphold a code of professional values and behaviors. As physicians, we have a commitment to adhere to the high and ethical moral standards of do right, avoid wrong, and do no harm. We are instructed to subordinate our personal interests to those of the patient, and avoid business, financial, and organizational conflicts of interest. We honor the social contract with patients and communities, and understand the nonbiologic determinants of poor health. We must be accountable both ethically and financially; be thoughtful, compassionate, and collegial; and continue to learn and increase our competencies. It is our obligation to strive for excellence and advance the field of medicine, sharing our knowledge for the benefit of others. To do this we must reflect dispassionately on our own actions, words, behaviors, and decisions to improve our knowledge base, skills, judgment, decision-making, accountability, and professionalism.

Medical professionalism is based on our trust and trustworthiness in the doctor-patient relationship, our caring for patients, and being worthy to serve the suffering. This is our basic contract with society.

Trust and trustworthiness are earned by physicians through their demonstrated competence, character, and caring. Character is our integrity—our moral responsibility and our virtues as a physician.

Becoming and being a doctor means being an expert in the science and art of medicine. It means being a member of our community of practice, and it is a challenging responsibility. It is taking on the identity of a medical professional, a healer who is inspiring and embraces humanism, ethical reasoning, and self-reflection.

Medical professionalism must be recognized as an ongoing, active, and iterative process that involves debate, advocacy, leadership, education, and continuous transformation. There should be no capitulation to efforts or circumstances that undermine the ethics and values of our medical profession.

I am an internist, and for years I've taken care of medical students, physicians, and faculty. I've been director of programs for groups of medical students, residents, fellows, and faculty. However, I wasn't aware of burnout in the medical profession until reading about it in the 1980s.

Throughout my career I've had excellent mentors, role models, and coaches who have helped me think about myself, my professional and personal development, and my well-being. They encouraged me to think about what I was doing and what I really wanted to do. I was fortunate in preparing to care for patients, teach, participate in research, mentor, and coach. This was my role as an academic internist. This diversity of work helped me prevent burnout. I also consciously decided that I would evaluate my career about every five years to assess what I was most passionate about and what I could do next to improve my work, career, and professional growth.

Initially, in addition to my role as a physician I had to learn how to be an effective educator and develop educational programs. Next, I realized that as an internist I didn't know enough about clinical pharmacology, so I pursued learning and applied what I learned in teaching and patient care. This led me to develop a team to pursue therapeutic clinical trials. Throughout my career, I published to share my experiences and learning with others. I also assumed roles in leadership and administration. I periodically reflected on what I was doing that I enjoyed and took great pride in, and thought about what I could be doing that would be new and different. I found the exercise of reflection to be therapeutic and found that it helped my well-being. I also continued to plan for my career and personal life in five year increments. Everything in my plan didn't turn out perfectly, but I always learned from the detours and made changes within the prevailing five years and for the coming five years.

Then came the time during one of my five year plans that I was taking care of the president of the University. He said, "Aren't you eligible for a sabbatical soon?" I answered that I was, but I wasn't sure what I would do during a sabbatical time. He then asked me the question in a different way, "What did you want to do before you were a physician and professor?" I told him that I was committed to being a teacher and since I was a history major I always thought that I would get a PhD, become a professor and write books. I added that I might be interested in someday becoming the president of a small liberal arts college; however since I was now a doctor and had been professionalized, that was probably off the table. He then explained to me that in his experience many physicians are well prepared to be leaders, much more so than many other professions.

I then found out that my president-patient nominated me for an American Council on Education fellowship on leadership, which I accepted. I participated in a one-year program under University of Virginia President John Casteen. I then pursued a new career path and have since served in several leadership positions, including as the Chancellor of the University of Colorado Boulder. Clearly, it was a new and different path committed to supporting college education and scholarly work of students and

faculty. I continued to see patients one-half day per week throughout all of my leadership roles in higher education. When I reflect back on my career, I don't feel or think I have ever personally experienced burnout, to which I give a great deal of credit to my amazing mentors, role models, coaches, family, friends, and colleagues. However, my family was significantly affected by my work and my commitment as an academic physician. There were occasions in the course of my career when out of duty and necessity I would have to tend to patients in the middle of the night, on weekends, during vacations, and over holidays. Then came the time for my son to think about his own career choices. He emphatically told me that the one thing he didn't want to do was to be a doctor. He explained that he intended to one day have a family and he wanted to be available when his family needed him. It was then that I realized my career as a physician had adversely affected and perhaps burned out some of my family. I never intended for this to happen, it just did. I then realized that my family would always come first. As an aside, my son is now an emergency medicine physician.

Being a physician and taking the oath of medical professionalism is not something we do in isolation, but rather something we do with our family members, our colleagues in and out of medicine, and our patients. We take the oath with our community and our community of practice.

An Epidemic

In the late 1980s, I began to read reports on burnout and doctors, and I would hear about an occasional episode where a medical student had committed suicide. It was then that I realized something had happened, and was continuing to happen, in and to our profession.

For centuries physicians have appreciated a high level of autonomy, which resulted in considerable job satisfaction. Physicians are highly educated and confident. They are compassionate and caring.

So, what has happened in our profession that burnout has reached epidemic proportions?

Today, it is believed that at least one-third of physicians have, or are, experiencing at least one manifestation of burnout, and it is reported that enough doctors in the United States commit suicide every year to fill two large medical school classes.[2] A 2019 MedScape report found that 44 percent of physicians feel "burned out," driving many to alcoholism and depression, or to leave the profession entirely.[3] And it's not just physicians. Nurse suicides are not systematically measured and reported, but a 2017 study in England found a suicide rate among nurses that was 23 percent above the national average.[2] Half of all nurses are considering leaving the profession, according to a 2017 study by RNnetwork.[2]

Almost every physician knows of someone who has or is experiencing burnout. As you will read in the following chapters, numerous physicians who are influential in our profession have experienced burnout.

Maslach wrote in 1993, "burnout is a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment."[4] The Maslach Burnout Inventory test has validated that the most important correlation to job burnout/satisfaction are expectations, relationships with co-workers and managers, social support systems, time in the position, and organizational policies. In addition, personal and personality variables including one's health, relationships with family and friends, and personal values and commitments also make a difference.[4]

Most of us know physicians who are suffering from burnout. Many have tried to defensively cope with the occupational stress by psychologically detaching themselves from the job, becoming apathetic, skeptical, cynical, rigid, and many have experienced a loss of idealism. A lack of energy, and an absence of the purpose that originally brought them into medicine are key indicators.

Maslach and Leiter identified six major contributors to burnout:

1. Workload and its intensity, time, demands and complexity;
2. Lack of control of establishing and following day to day priorities;
3. Insufficient reward and the accompanying feelings of continuing to have to do more with less;
4. The loss of community and relationships wherein the work becomes impersonal and teamwork is undermined;
5. The absence of fairness and less openness in the work environment; and
6. The absence of expectations, and conflicting values from management.[5]

Some individuals are more susceptible, but it's hard to know who will be affected. It is estimated that about 80 percent of cases of burnout in physicians are due to organizational factors and dysfunction, and the remaining 20 percent are related to individual physician factors.[6] However, both are often present in many physicians suffering from burnout. The impact of business, corporations, industry, markets, and finance on medicine is real and appreciable. The businessification and commodification of medicine influence and exert pressure on how care is provided, and how work is carried out and valued. The rules are not being set by professionals, but by organizational priorities related to finances, the bottom line, and making medicine profitable.

Physician performance is primarily evaluated by relative value units (RVUs), financial accomplishments to increase the organizational revenue, and Press Ganey patient satisfaction surveys. These performance factors are all expected to be accomplished via reduced patient contact time, diminished collegial interaction, and abbreviated consultation time with colleagues. Physicians are now required to work in an environment that is more demanding and regulatory with more legal requirements. Physician autonomy has all but vanished.

Over the last 50 years, social changes have altered the doctor-patient relationship. In the corporate transformation of health care, many components of medicine have become businesses that do not put the patient first. Medicine has also experienced the introduction of entrepreneurs, investors, and corporate executives. The primacy of the care of the patient is no longer the prevailing focus. There is a paucity of physician leaders who are medical professionals, who embrace medical values, and who are trustworthy. In many cases the lack of values characterizes the management and administration of health care organizations.

Physicians need to resist and, as difficult as it may be, demonstrate caring, concern for patients and families, beneficence, kindness, empathy, courage to do the right thing, perseverance, commitment, optimism, good humor, flexibility, integrity, honesty, forgiveness, humility, unbiased judgment, fairness, altruism, and equanimity. A physician must be a responsible healer, medical professional, and member of our community of practice.

Professionalism as a Buffer to Burnout

The virtues of medical professionalism are largely based on the code of Hammurabi, Hippocrates, and Maimonides who codified the practice of medicine as a sacred trust of the physician to protect and care for the patient, and to follow a set of values for physicians. The practice of medicine is conferred a sacred trust with the expectations of compassion, competence, character, caring, and trustworthiness. This was the original social contract—what patients should expect from physicians.

Serving as a physician and practicing medicine must be based on core professional beliefs and values, and those entering the profession must understand, learn, and demonstrate the aptitude and commitment to working in service of others. As physicians we benefit most by caring for others, not by financial returns.

Physicians are respected, and must be evaluated, based on meeting the responsibilities and caring for patients. Medicine is self-directed and therefore largely self-regulating. The privilege of self-regulation is granted to us by patients and society when we prove ourselves worthy of their trust by meeting our professional responsibilities to them.

Professional medical organizations and leaders in medicine have continued to define the principles of medical professionalism. The American College of Physicians and the American Board of Internal Medicine defined professionalism and developed a modern day social contract. In addition, Peter Irving developed a different professionalism viewpoint based on a behavioral model, refining behaviors and translating ethical instruction into ethical action.[7] In the past decade, a third model of professionalism emerged based on professional identity formation, which describes the progressive incorporation of the values and aspirations of the profession into the identity of the person as the physician.

In forming a professional identity, the good physician takes on the identity of the medical community of practice and is socialized into the values, aspirations, and behaviors of the profession. Drs. Richard and Sylvia Cruess explain that:

> An occupation's core element is work based upon the mastery of a complex body of knowledge and skills. It is a vocation in which knowledge of some department of science or learning or the practice of an art founded upon it, is used in service of others. Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice, and the privilege of self-regulation. Professions and their members are accountable to those served, and to society.[7]

A conflict exists when there is a gap between the realities we experience and the ideals to which we aspire. As physicians we have the ability to work within the medical or technical problems that may arise. We recognize them, can define them, and work to find a way to solve them. However, many problems physicians are facing today are not technical in nature. Many of today's problems are controversial and at odds with medical professionalism. These are complex adaptive problems for which there is no clear solution, or at least no clear solution is always evident.

These complex adaptive problems require a different form of thinking. We need to come to grips with a system that often fails to protect the mission, and consequently the patient. This requires that we think about how to deal with these complex adaptive problems differently and figure out how to acculturate to them. There are often inconsistent, ambiguous, and conflicting expectations in medical organizations.

In addition, there have been social changes that have occurred which altered the doctor-patient relationship. Today, both patients and medical students come with different values, understanding, and expectations. However, serving as a physician and practicing medicine must be based on core professional beliefs and values, and those entering the practice of medicine must understand the values of medical professionalism, and then learn and demonstrate the aptitude and commitment to behave professionally.

Resilience

Adversity in the practice of medicine is inevitable. It is the ability and capacity to recover from difficulties quickly that leads to resilience.

Resilience is about getting through the pain, the disappointment, the self-incrimination, and the feelings of inadequacy. However, resilience is not always innate. We need to learn how to take better care of ourselves, just like we learned how to take care of patients and diseases.

We need to think about this from a different point of view. To fail is to be human. We are all going to fail at some thing(s), some time. The problem here is that failing in medicine is considered unacceptable. However, personal failure can be acceptable as long as it is accompanied by reflection. Reflection allows us to regulate emotions and creates the ability to see adversity and perceived failure as a form of helpful feedback to be learned from. A thoughtful and mindful analysis of what happened and what might have been done differently provides for thoughtful consideration which may result in different approaches in the future.

Mindfulness is another key to resilience. Too many times responses are intuitive. You've learned how to do things and how to respond, and that's fast thinking. Many things require you to stop and consciously think about what's happening. Is your response appropriate or just reactionary? Has your amygdala been hijacked? Should you be looking at the situation differently?

Helping medical students and physicians to recognize when a situation is complex and may include values or patient conflicts is imperative. We need to recognize when we need to slow down and make a reasoned, explicit decision about what to do rather than simply instinctively responding. It is important to learn how to switch from generally appropriate fast thinking to more methodical slow thinking. As Alan Robinson, MD, (AΩA, University of Pittsburgh School of Medicine, 1988) says, "There is always time to think." As physicians we are fortunate to have a community of practice to help us.

As physicians it is imperative that we maintain a community of practice. Over the last several decades the medical community of practice has changed dramatically, and the result is that many physicians are isolated and practice within silos. Traditionally, physicians practiced in small group—they were a community of practice. However, with the advent of the RVU and the commercialization and businessification of medicine, the communities of practice have gone by the wayside. A colleague recently wrote me, "You've written in the past about how communities of practice have diminished. I work in an academic health center in which nobody knows each other or takes time together. They come in, they put in their time, and they get out of here."

Today, every order, every lab request, every test result, every consultation has to go through the electronic world. Through the use of email and the electronic health record (EHR), we are predisposed to avoid personal contact and just send off an email, even when the person is sitting in the next cubicle, office, or just down the hall. The lack of face-to-face contact and interaction results in the absence of a community of practice. The reestablishment of communities of practice is a defense against burnout and can be invigorating .

The businessification of medicine has resulted in the 15-minute patient visit, with no flexibility. Patient visits are scheduled from 8 a.m. to 5 p.m., with the possibility for a lunch break, if the physician didn't get behind by spending too much time with a patient or two. Usually, physicians work through lunch. The typical day

is tightly scheduled, and there are rarely social life opportunities. Again, a lack of a community of practice where physicians have an opportunity to interact, consult, or commiserate. Even though we're talking about professional medicine and being physicians, we've got to realize that socialization is a basic human need and extremely important to our health and well-being.

Medical communities of practice are one defense against burnout. Communities of practice provide physicians the opportunity to have conversations with colleagues, team members, and staff. They can on occasion commiserate about problems, barriers, and system limitations. They also can share successes, present cases, and share lessons learned. The short intervals provided through an office community of practice offer collegial relationships, education, and reflection.

The values, which are not medical professional values and are created by today's monetary-driven health care system, are creating professionalism problems for physicians and health care providers. We need to recognize that bureaucratic and market forces are going to continue to battle for the hearts and minds of 21st century professionals. This isn't about saving the world for professionals, this is about saving health care for patients and the public. In a world where the mission is increasingly defined by margins and profits, we must rely on each other and our coping mechanisms, and develop resilience.

Going forward, we need to learn more about the factors leading to physician burnout, successful interventions, and advocate and demand change to more effectively care for patients.

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Chapter 2

A Personal and Professional Perspective on the Burnout Crisis

Darrell G. Kirch, MD

Like many, my life and career in medicine have been full of unexpected highs and lows. The start of my journey was marked by a very unexpected tragedy that solidified my desire to join the medical profession.

In the summer of 1970, I was working on a survey crew high in the Rocky Mountains while on break from pursuing a philosophy undergraduate degree at the University of Colorado at Boulder. I was enjoying the work (including the much-needed income) so much that, when fall came, I decided not to return to school but to stay with the crew until the harsh winter weather would close the job.

October 2 began just like many others before it—crisp air, clear blue skies showing off the fall golden color of the aspen trees. Shortly after lunch, the beauty of the day was shattered when a low-flying, twin-propeller plane crashed into the mountainside above us. My co-workers and I scrambled to assist, finding several passengers who had amazingly escaped, badly injured, before the plane exploded. Despite our best efforts, 31 members of the Wichita State University football team and community perished in that crash.

My experience as an unprepared "first responder" to that horrible tragedy set me on a new path. I returned to Denver, working construction jobs by day and pursuing pre-medical courses at night, eventually earning entrance into the University of Colorado School of Medicine.

Though I had earned my seat in medical school, I still had doubts about whether I truly belonged. In my first year, experiencing a grueling quarter with too much time spent in the gross anatomy lab and too little time outdoors, I became burned out. Fearing the judgment of those around me, I avoided asking for help. As often occurs, it was a short path for me from burnout to depression. My illness was on the verge of derailing my career in medicine when an extraordinary student affairs dean saw my struggles and steered me toward the psychiatric care that I needed. Because of him (and the effective antidepressant medications I take to this day), I now look back on a gratifying career as a physician, educator, scientist, and health system executive that spans the National Institutes of Health, the Medical College of Georgia, the Penn State Hershey Medical Center, and the Association of American Medical Colleges (AAMC).

In some ways, my journey in medicine is unique. Unfortunately, in terms of my struggles with burnout and depression, my story is far too common.

Clinician Distress

Clinician burnout and related forms of distress in the United States have reached crisis levels. In recent years, we have seen alarmingly high rates of burnout, depression, and suicide among physicians. A study of physicians in 2014 found that 54.4 percent were experiencing at least one symptom of burnout, roughly 40 percent of physicians screened positive for depression, and more than six percent admitted to suicidal ideation.[1] In addition, a recent study of emergency medicine residents found an astonishing 76.1 percent were experiencing symptoms of burnout.[2] The medical profession is losing nearly 400 physicians to suicide each year. This is equivalent to two graduating medical school classes each year.[3] Sadly, the crisis extends across the health professions. More than one-third of nurses in direct patient care experience burnout,[4] and small studies indicate that physician assistants may experience burnout at similar rates to nurses and physicians.[5]

A product of the workplace and learning environment, burnout has been defined as "a syndrome characterized by a high degree of emotional exhaustion and high depersonalization (i.e., cynicism), and a low sense of personal accomplishment."[6] This three-dimensional model is significant because it clearly places the individual's stress experience within a larger social context, and it incorporates the individual's conception of self and others.

Some have suggested that the antidote to burnout is individual resilience. Given that burnout is not simply an individual problem, bolstering individual resilience alone is not an effective solution. Additionally, it has the risk of alienating those who are suffering as a form of victim blaming. Rather, clinician well-being is extraordinarily complex with dozens of contributing factors having been identified. The National Academy of Medicine, in its work on clinician burnout developed a conceptual model that identifies seven domains, with each domain including multiple discrete factors that can play a causative role in burnout.[7] The seven domains are organizational factors; the learning and practice environment; health care responsibilities; rules and regulations; society and culture; individual skills and abilities; and personal factors. This model highlights that the majority of factors contributing to burnout are outside individual clinicians and reside in the environment in which they work.

Burnout affects more than providers—it affects institutions and patients in myriad ways. Burnout has been shown to lead to impaired professionalism, high staff turnover, a decrease in patient satisfaction, and an increase in medical errors.[6]

A National Call to Action

In recognizing the severity of the clinician burnout crisis, and the effects of the complex organizational factors noted above, the National Academy of Medicine (NAM) launched a wide-ranging Action Collaborative in early 2017. The

Collaborative's goals are to advance evidence-based solutions to promote clinician well-being and combat burnout, as well as the depression, suicidality, and other related problems, occurring among United States health care workers.[8]

The NAM Action Collaborative on Clinician Resilience and Well-Being is making significant progress addressing burnout by using a systematic approach drawing on a lesson from our recent past. The wake-up call on the dangers of clinician burnout evokes the similar wake-up call regarding the quality and safety of American health care in the early 2000s. It was two groundbreaking Institute of Medicine reports, *To Err is Human,*[9] and *Crossing the Quality Chasm*,[10] that helped lead a groundswell of action that has resulted in steady improvements in the quality and safety of the American health care system.[11]

Much as our nation's ongoing efforts in quality and safety indicate, we cannot change culture with the flip of a switch. Similarly, reforming health care to foster clinician well-being will be a long road, but we (as I serve as co-chair of the Action Collaborative along with Dr. Tom Nasca (AΩA, Sidney Kimmel Medical College, 1975), President and CEO of the Accreditation Council of Graduate Medical Education, and Chair Dr. Victor Dzau, President of NAM) are optimistic that the nation will see the same significant progress in the years to come.

The critical importance of the Collaborative is in its solution-orientation. "The problem is not lack of concern, disagreement about the severity or urgency of the crisis, or absence of will to act. Rather, there is a need to coordinate and synthesize the many ongoing efforts within the health care community and to generate momentum and collective action to accelerate progress," Nasca, Dzau, and I wrote in a commentary for the *New England Journal of Medicine*.[12] Indeed, progress has accelerated in less than three years since the launch of the Collaborative.

More than 130 organizations have formally committed to reverse trends in clinician burnout.[13] In March 2018, the Collaborative launched a knowledge hub to serve as a central repository for the research and resources regarding causes, effects, and solutions for clinician burnout.[14,15] In late 2018, NAM launched a consensus study to "identify promising tools and approaches to support clinician well-being, identify gaps in the evidence base, and propose a research agenda to address areas of uncertainty."[16] The results of this study were recently published in the report, *Taking Action Against Burnout: A Systems Approach to Professional Well-Being*.[16]

Interventions to Preserve Well-being in Medical School

Medical school leaders, administrators, and front-line educators also have joined in the efforts to enhance and preserve well-being for medical students. For many years, the undergraduate medical education community, in which the AAMC plays a leading role, has worked collectively to preserve the well-being of learners. These efforts have accelerated in the last decade.

Medical school has multiple critical points of vulnerability, including high-stakes examinations for progression, as well as significant power differentials between students and other groups. Students may experience mistreatment of various forms, not only from faculty members, but also from residents, other students, nurses, and patients. These stressors are additive to the significant workload and challenges of overall work-life balance encountered by every learner. The AAMC has taken an active role in working with its members to identify points of vulnerability, establish interventions that lessen the stress, and identify at an early point those students who may be struggling, just as I once did.

In terms of accreditation, the Liaison Committee on Medical Education (LCME) (of which the AAMC is a sponsor) has required for more than 30 years that medical schools have in place effective systems for confidential counseling for medical students and access to health care services. This includes ensuring that programs focus on the "mental well-being of students and facilitate adjustment to the physical and emotional demands of medical school."[17]

The requirements for providing confidential counseling and other programming on well-being are certainly necessary, but hardly sufficient. Stigma around help-seeking for mental illness is significant, particularly in the health professions, as some fear that revealing a history of mental illness may be required during the licensure process and ultimately jeopardize one's ability to practice medicine. Many schools have taken steps to reduce stigma and to train their communities to recognize signs of distress. The University of California San Diego (UCSD) developed a multi-departmental approach to train colleagues in effective techniques for suicide prevention, including how to intervene at the first signs of distress, and how to recognize the acute warning signs of suicide risk. In seven years, 180 physicians and trainees accepted referrals for mental health care, with the majority saying they would not have done so on their own. The program at UCSD is modeled in part on an Air Force program that achieved a 33 percent reduction in suicides between 1996 and 2002.[18]

Recognizing that a strong sense of community has been shown as a key factor in resilience,[19] many medical schools have worked to reduce social isolation and strengthen relationships among students and faculty. Many have adopted learning communities (sometimes also called colleges, houses, or societies) as a central mechanism for mentoring, counseling, and faculty- and peer-support. Schools with learning communities report "increased sense of connection, improving student well-being, increasing student–faculty interaction" among the benefits.[20] Vanderbilt University School of Medicine was an early adopter of learning communities in 2006, assigning students in each class to one of four colleges that integrate well-being, mentoring, career planning, and academic services for students. Since implementing the college model, student satisfaction with counseling, mentoring, and career planning has increased.[21]

Other schools have made changes to coursework to incorporate principles of individual well-being, with some taking an interprofessional approach. The

University of Minnesota offers several dozen courses focused on integrative healing and well-being for health professions students and practitioners.[22] Similarly, Georgetown University School of Medicine has offered an in-person Mind-Body Medicine Skills elective class since 2002. Each session includes meditation, personal sharing, and the introduction of a new mind-body practice, such as autogenic training, guided imagery, or journal writing. In addition to serving students, the course's faculty have trained other faculty to implement the course at their schools within the U.S., Germany, and Sweden.[23]

Other educators are examining the academic structure, courses, and evaluations to identify correlations with student well-being. In one study of 1,100 students at 12 medical schools, Reed et al., examined grading scales and curriculum structures for correlation with burnout and stress. The study found that the grading scale was most strongly associated with student well-being, with those students under pass/fail grading systems reporting lower rates of stress and burnout. The authors also found that students reported less burnout and stress as their clinical time increased.[24] Other studies have also sought to understand the effects of pass/fail grading on student well-being, but many are limited to single institution samples.[25, 26]

On a national level, the AAMC continues to identify opportunities to ensure a positive learning environment for students, residents, and faculty. In 2014, the AAMC Board of Directors approved a Statement on the Optimal Learning Environment for Medical Education:

> We believe that the learning environment for medical education shapes the patient care environment. The highest quality of safe and effective care for patients and the highest quality of effective and appropriate education are rooted in human dignity.
> We embrace our responsibility to create, support and facilitate the learning environment shared by our patients, learners and teachers. In this environment, our patients witness, experience and expect a pervasive sense of respect, collegiality, kindness and cooperation among members of their health care teams. This includes all professionals, all administrators, all staff, and advanced and beginning learners from all health professions. This includes research as well as patient care environments.
>
> We affirm our responsibility to create, support and facilitate a learning environment in which resilience is fostered for all participants. It is our responsibility to create an atmosphere in which our learners and teachers are willing to engage with learning processes that can be inherently uncomfortable and challenging.
>
> We affirm our commitment to shaping a culture of teaching and learning that is rooted in respect for all. Fostering resilience, excellence, compassion and integrity allows us to create patient care, research and learning environments that are built upon constructive collaboration, mutual respect, and human dignity.[27] (AAMC Board of Directors Minutes, June 5, 2014, unpublished)

Historically, the stress experienced by learners (including the various forms of mistreatment to which they are subjected) were all too often viewed as a necessary "rite of passage" in becoming a physician. The AAMC board action made it clear that this was no longer acceptable.

In support of achieving a positive learning environment, the AAMC re-released three compacts for learners and their teachers, advisors, and mentors in 2017. In addition to affirming the commitments necessary for a high-quality training experience, these publications provide a broad set of guidelines to initiate discussions at the local and national levels about the predoctoral student-mentor relationship, the postdoctoral trainee-mentor relationship, and the resident physician-teacher relationship.[28,29,30]

Another area of focus for the AAMC and undergraduate medical education community has been improving the selection process with tools or interventions that can better identify resilient aspiring physicians. While the MCAT exam provides a strong indication of how academically prepared a student is for the rigors of medical school, it does not provide information about how resilient a student might be.[31] That's why nearly all MD-granting programs use holistic admissions processes, which seek to identify in applicants the non-academic qualities that make a successful physician.[32] Increasingly, admissions committees evaluate for "distance traveled," which is evidence that "some individuals have potentially persevered more to reach the same life stage."[33] The AAMC and others are also exploring assessments and tools that may better examine students' resilience and other non-academic qualities, such as communications skills, emotional intelligence, and teamwork.

Another critical success factor in reducing learner and clinician burnout is a focus at the highest levels of organizational leadership on preserving and restoring well-being. This is evidenced by the recent trend of creating a leadership position dedicated to wellness, often reporting directly to the Dean or CEO.[34] In May 2011, The Ohio State University became the first university to appoint a chief wellness officer, Bernadette Melnyk.[35] Since then, a number of academic health centers, hospital systems, and health care organizations have appointed chief wellness officers. This growing emphasis on well-being at the highest levels of leadership indicates the importance of culture, as influenced by "the tone at the top," as one of the primary drivers of well-being. Most important, these positions cannot be "window dressing," but rather must be fully empowered and well resourced, making clear that there is a true top leadership commitment to organizational well-being.

In Everyone's Best Interest

To some degree, each clinician comes to their career with an idealized image of selflessly giving care, not needing care. The reality is that every clinician is human and has limits.[12] When those limits are exceeded, every clinician is vulnerable to workplace burnout, and to other forms of mental distress that may arise, including anxiety, depression, substance use, and suicidality.

With the collective support of the health care and medical education communities, we are making significant strides in recognizing and addressing clinician burnout. There is concerted effort at the undergraduate medical education level, throughout the full medical education continuum, and throughout the medical profession to foster environments where learners and clinicians can thrive. Indeed, it is in our best interest and our patients' best interest to bring all our collective ingenuity and resources to bear on the problem of clinician burnout.

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Chapter 3

The Juggler's Handbook: A Conversation About Life

Linda Hawes Clever, MD, MACP

Words make a difference. Paraphrasing the Eastern mystics, beware of what you say because what you say becomes what you think; what you think becomes what you believe; and what you believe becomes what you do.

RENEW, now a 22-year-old not-for-profit, works to provide opportunities for groups of health professionals and others to reaffirm their values and purpose so they gain, or regain, personal and professional energy, effectiveness and enthusiasm. RENEW eschews the word "burnout."

The original definers of burnout, the Maslach father and daughter team, applied the term solely to work. Physicians and other clinicians these days are concerned not only about the consequences of volcanic workloads, they are also concerned about their families, friends, communities, and themselves.

The term "moral injury" goes beyond burnout to capture the element of outrage at work, yet practice-related injuries extend far beyond the workplace.[1] They also undermine relationships, neighborhood interactions, and personal health. Thus, RENEW publications and materials encompass life, not only work. Just as the National Academy of Medicine recognizes the give and take between physicians and nurses by using the term clinician in its Action Collaborative on Clinician Well-Being and Resilience, RENEW's goal is for physicians, nurses, and other clinicians to achieve whole, healthy lives, just as we strive to achieve the same for our patients.

Other words make a difference too. Aware that the term "profession" comes from the Middle English, "profess," which means to "take a vow," and the Latin word "profess," which means "to declare publicly," and also aware that we do take a vow (and sometimes personal, family vows as well), RENEW never uses the term "provider" to refer to health professionals. That word formerly applied to purveyors, such as salespeople, not professionals.

The term "healthcare" began to be used about the time that "managed care" and "providers" entered the lexicon. Combining two honored words into one, diminishes each one. In another linguistic effort, RENEW uses "health" and "care" separately.

Landscape

The landscape of organizational comments and interventions about physician distress, formerly parched, is starting to blossom.

It has been said that statistics are people with the tears wiped away. We all know the statistics about physicians experiencing disillusionment, disappointment, depression, and disgust. We understand this leads to physicians who make errors, retire early, leave the profession, and/or commit suicide. Unfortunately, some training programs prime the pump of physician distress by using methods that put young people under stress. To be fair, we have also experienced our profession's joys, triumphs, discoveries, and the accompanying compliments, gratitude and fun.

Consequences of Stress

People under stress:

- Have difficulty hearing, understanding, and remembering information;
- Are less likely to interpret nonverbal cues;
- Have an up to 80% reduced ability to process information;
- Require increased visual/graphic information over verbal information;
- Preferentially focus on negative messages; and
- Have a wider gap between perception and reality.

From: James Lau, MD, Stanford Department of Medicine Grand Rounds 9/27/17

Recently, laudable attention may be starting to relieve some misery that trainees and seasoned physicians report. Catherine Lucey noted in her 2015 paper that resilience depends, in part, on physician well-being.[2] In 2017, Paauw, Papadakis and Pfeil presented several cases that illustrate differences in priorities and behavior, such as time off, that can lead to discouraging clashes between younger and seasoned physicians. These authors offered interventions such as clear expectations, timely communication, and honest discussions of miscues.[3]

RENEW has found two ways to help remedy generational conflicts. The first is to air personal values and to understand how they affect options and behavior. There are often more similarities than differences. The second is to listen early, extensively, and respectfully.

Some organizations have inserted "healthy" concepts into their statements of principles. The American College of Physicians (ACP) added to its list of core values leadership, excellence, professionalism, and responsibility: "We maintain healthy personal and professional lives to most effectively serve our patients."[4] I

would add, and serve our families and communities. ACP's Goal #4 is "To serve the professional needs of the membership, support healthy lives for physicians, and advance internal medicine as a career."[5]

The Canadian Medical Association says in its values statement, along with professionalism, community building and integrity, "Compassion: caring for physicians, patients, and each other."[6] In 2019, of its 11 online courses on leadership, four focused on self-awareness, values, and/or emotional intelligence.

Alpha Omega Alpha Honor Medical Society (AΩA) is strong on diversity and high standards about achievement and worthiness, yet has no prominent comments about physician health in its institutional statements Other than articles in *The Pharos*.[7] However, they sponsored this conference and monograph as part of their commitment to physician well-being.

Finally, while discussing the organizational landscape, it is important to note that key differences exist within, and among, organizations about who should be the center of attention as we address clinician suffering. There has been extended debate within the National Academy of Medicine about the bullseye of its conceptual model. Should it be patient well-being or patient and clinician well-being? For now, patients stand alone.[8] In the Stanford conceptual model,[9] should the target be professional fulfillment alone, or professional and personal fulfillment?

The RENEW Story: Description and Transformation

At RENEW's 20th anniversary conference, we looked ahead and looked back. Looking ahead, one session focused on innovative, resiliency-oriented curricula for medical and nursing students at the University of California Berkeley, San Jose State University, and the University of California Davis. Other sessions were on organizations that incorporate RENEWing concepts, attitudes, and activities throughout entities such as the Permanente Medical Group, Sutter Health, and Stanford University. We also spotlighted techniques that can enhance health such as use of essential oils in pain relief and massage therapy for patients with neurological disorders and cancer.

RENEW was born out of travail, shaped by hard work and discoveries, and buoyed by wise and generous supporters. In 18 months, my mother died; our house was burglarized; I lost two jobs I loved and was good at (department chair and medical journal editor) not because of merit but because of changes in health care; my father died; and my physician-husband was diagnosed with cancer (he is fine now). Our daughter, now an internist, stayed well, thank goodness. When I was finally able to up periscope, I saw that many of my colleagues were suffering, too. Some had grief or disorder in their personal lives; some had professional dismay; and some were bored.

John W. Gardner, former United States Secretary of Health, Education and Welfare, and who started Common Cause, White House Fellows and Independent

Sector, and with whom I had been a Stanford Trustee, wrote extensively on leadership, excellence, and renewal. He pointed out that every person, every institution, and every organization needs to renew.

How can we, as individuals, examine our purpose(s), gather our resources, and regain vision and vigor? How can we find meaning, and, therefore, joy in life as well as work? RENEW's vision was to start a movement toward transformation and vitality in hospitals and hamlets; in clinic teams and neighborhoods, and in companies, unions, clubs, and institutions. That required change. The intent was not to be disruptive, yet innovation and change can be upsetting. Some saw RENEW and renewing as sissy, weird, woo-woo, unnecessary, and even a threat to scheduling or the system. Would it weaken or undercut tradition and discipline to accommodate a physician, female or male, who wanted to have a baby or take care of a dying father? Could mentioning distress threaten a career? Fortunately, some department chairs, program directors and other leaders said, "Just in time! We need that. Let's work together."

Early on, RENEW adopted fundamentals:

- It is far preferable to prevent a problem than to recover from it. Many afflicted with overwhelm, cynicism, losses, self-doubt, or heartbreak liken these effects on their career and lives to a chronic or fatal disease.
- Choose philosophical underpinnings—Change Theory and Adult Learning Theory. The approach RENEW took to change mirrored the one that applies to the care of patients. There are five steps that move through:
  - Not knowing that we need to change;
  - Thinking about changing and preparing to change;
  - Making the change;
  - Maintaining the change; and
  - Relapse—this is not failure, it is learning.

  Adults usually learn because of a specific need—a new technique, a new program, a new way of reacting or speaking. Therefore, the information needs to be practical, applicable, and often condensed because of time pressures—try out the new knowledge, get feedback, and reboot. Adults also learn through experience, or others' experience, thus stories and conversation usually register more than memorization.
- Values are both wings and anchors. They are the basis of meaning in life, not of life. They form the basis of judgments of good and bad, right and wrong. Shared values glue together families, partnerships, and enterprises. Therefore, we need to know, live, and revisit our values within ourselves, with our dear ones, with friends and colleagues, and also check to see if personal values mesh with work values.
- Listen, for people have answers to tough questions. The answers may be buried yet can be excavated. People are basically magnificent, which is good to hear and remember.

- Work in groups. Groups are fun, with the right modus operandi. They remind us about the value and pleasure of collegiality. Solutions may come more easily when we see that others have good ideas that we could try. Most importantly, we learn that we are not alone.
- Stories carry messages best.
- It is essential to understand what people want, not just what we think they need.
- Write a book about your findings.

RENEW's Approach

Rome wasn't built in a day and renewing takes time too. It is a process. We have found a four-step prescription that works for many: awareness, reflection, conversation, plan and act. That is, smell the coffee, think about it, talk with others to get ideas, and then move ahead. Initiating those steps takes time. A certain tidal quality is at work, as goals, interests, passions, priorities and values slosh back and forth and re-arrange as a person has new awareness, deeper reflections and more conversations. The idea is to make any necessary or desired change feel more like stepping off a curb than jumping out of an airplane.

In RENEW, after welcome, introduction, and ratifying goals, we often start by inviting the audience to answer questions on the Renew-o-Meter.[10] The audience could be at a seminar, workshop, course, or retreat. Discussing the questions and answers to the Renew-o-Meter—not the scores—people start to warm up and connect. The next step is to define and discuss values and ask people to shout out favorites. The goal is to narrow your values list to several, not 10-20, and to remember your values. Values don't need to be identical, they need to be known, not assumed, and respected.

There are personal values and workplace values. Both are often listed yet can be difficult to accomplish together. Also, a desire for excellence can submerge when time limits require just good enough. Of course, the perennial conflicts are work, home, and self.

Many physicians, nurses, and other health professionals, along with faculty, executives, clergy, staff, attorneys, and volunteers, hunger for ways to live a whole healthy life with dignity, grace, meaning, and joy. Along with citing discoveries they make using the Renew-o-Meter and examining values, people say that the mantra, "It is not selfish to take care of yourself. It is self-preservation, so you can do what you want to do and what you need to do." gives them permission to take care of themselves.

Beyond the Renew-o-Meter and values, we are often asked to address:

- Juggling—Identify metaphoric rubber, glass, and razor blade balls in order to decide which to juggle. Rubber bounces; glass shatters; razor blades shouldn't be picked up in the first place. Relationships are glass.
- Setting limits—Why do we say, "Yes," when we are already overloaded? How can we say, "No," at the right time, in the right way?
- Letting go—Difficulties and benefits.
- Social media, including email—Distractions, interruptions, sensible management.

- Resilience—Effects of experience, resources, attitude, time—and the possibility of clinical depression.
- Leadership—Characteristics, tasks plus calls to excellence and creativity. Great leaders don't do things better, they do things differently.

Other topics of discussion include:

- Poetry—Consider Naomi Shihab Nye's *Famous and Kindness*; Mary Oliver's *The Journey and Mysteries*; John O'Donohue's *Beannacht* and *To a New Beginning, and* Cavafy's *Ithaca*.
- Neurophysiology—The effects of being in nature and slow breathing on the amygdala and other parts of the brain.
- Benefits of a pause—Allows time for awe; and gives opportunities to celebrate, exercise, stretch, sleep, and laugh.
- Signs of trouble—Including loss of a sense of humor.
- Awareness of what you can control—Behavior, aspirations, and attitude.

Clinicians who are at the top of their game:

- Have strong relationships;
- Have deep spiritual or religious life;
- Take care of themselves;
- Like their work; and
- Are convinced they can play the hand that's dealt to them.

Results

Measuring effectiveness is difficult. One metric is return engagements. RENEW has had regular seminars with the Permanente Medical Group, the American College of Physicians, Stanford's Health Improvement Program, and the Center for Excellence in Nonprofits. Comments from "renewers" 6–12 months after a program or during or after conversation groups include:

- "Since we rarely allow ourselves the time to reflect on our own values and how professional life affects personal life, Renew's approach is welcome, unique, yet simple. We felt cared for, listened to, and respected. It was a treat to communicate with colleagues in a different setting and discuss topics other than routine ones. We shared resources and ideas for personal and professional challenges."
- "Your perspective is a thoughtful reminder that we need to look at ourselves and assess priorities in our personal lives."
- "Renewal involves emotional and attitudinal transformation that brings deepened understanding of self and subject matter…This is a frontier."
- "I'm at a point in my career when I really needed to sit back and ponder my priorities (increased administrative demands in conflict with clinical demands) versus a

busy family life with MD wife who is frustrated working 'only' 10 hours a week so she can be with our four children."

- "We'll be better physicians, spouses and citizens because of your work."
- "I now see that no matter how bad the day, I can always be kind."

Thirty-two physicians who attended an ACP RENEW seminar answered the question, "What helped you most during times of change or overload?" Sixty-three percent said their first choice was family, friends, or both. Adding the first, second, and third choices for getting help, all but one said family or friends. This supports RENEW's focus on healthy relationships as key to physicians having whole, healthy lives.

Looking Ahead

Of course, we should correct workloads and debilitating organizational policies. We should make sure that physicians have opportunities to grow professionally, and change course when needed. We need to learn from community organizers and others about ways to make societal, political, social, and institutional changes. Advocacy and activism with administrators, policymakers, and politicians should be part of physicians' job descriptions. We should encourage healthy relationships, especially with family and friends. AΩA should keep up its important work on professionalism. Statements about physician/clinician good health should be in AΩA's and other organizations' constitutions as well as their goals, values, messages, and vision statements. We must go beyond work-related concerns into a positive vision of whole, healthy lives for ourselves and our patients. We are partners with them and their families in many ways. Clinicians and patients should cross the finish line together.

Speaking Truth to Power

Over the last several decades, medicine as a profession has suffered. Many forces, including regulatory and economic ones, have eroded physicians' and patients' health. Along with others, RENEW has studied and intervened. It offers programs for groups that focus on values, meaning, and the prescription: awareness, reflection, conversation, plan and act. Integrating the five practices of healthy, capable people who are at the top of their game into policies and everyday life helps individuals and organizations make positive changes.

There is a long way to go. Leaders and followers need to listen to each other, listen and pause, so we can examine our lives, from our hectic schedules to our deepest purpose. We all need to open up, flex, and take some risks. The discomfort of speaking truth to power must be weathered.

We can do this. We can rebuild and renew ourselves and our profession. The goals must be vitality and excellence in clinicians' lives and work.

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Chapter 4

Electronic Health Records: Maintaining Professionalism

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Medical professionalism is the basis of a physician's contract with society. The American Board of Internal Medicine, the American College of Physicians, and the European Federation of Internal Medicine in their physician charter identify three fundamental principles—primacy of patient welfare, principle of patient autonomy, and principle of social justice.[1] In addition to these, there are several professional responsibilities including commitment to professional competence, honesty (veracity) with patients, patient confidentiality, improving quality of care, and commitment to professional responsibility.

The electronic health record (EHR) should capture the patient's story, improve patient care and safety, and improve efficiency of practice.[2] EHRs have added to the complexity of patient care, increased time away from direct patient care, focused more on the regulatory components rather than the narrative of the patient's care, and have been identified as a leading cause of dissatisfaction among physicians.[3,4]

However, EHRs can bring benefit to clinicians and patients in many ways. Having accessible records 24/7, legible medication lists that can be easily updated and modified, and legible and electronically sent prescriptions may reduce errors and save time. In addition, updated allergy lists avoid misprescribing, problem lists (if accurate) can be reviewed at each encounter, templates (if used appropriately) follow best practices, and patient education resources are available within the record.[5] While some may lament this new technology for the burden it has placed on clinicians, health care workers, and patients, we will not be going back to the inefficient paper charts.

Concerns with the EHR

Studies have shown that the amount of face-to-face time with patients has declined to about one-third of the total time spent with an individual patient, while almost 50 percent of the visit is spent with the EHR. This can lead to burnout, shortcuts, cookie cutter medicine, and inaccurate information perpetuated in the record.[3,6-10] It can also diminish the doctor-patient relationship.[2]

Conversely, other studies have shown benefits of the EHR in reducing unnecessary tests, prevention of medications being prescribed inappropriately, and the ability to conduct quality improvement reviews and monitor changes.[5,11-13]

Cognitive specialties such as internal medicine need time to gather the patient's story, process information, examine the patient, formulate an assessment and management plan, and document this information in a useful, legible format. This all takes time. Organizations expect clinicians to do all this work and complete the documentation in 20 minutes in most cases. One of the biggest drivers of moral injury to clinicians is feeling like they cannot practice good medicine.[14-16]

The system drivers of moral injury—regulatory burdens and payment structures for medical care, and forcing clinicians to take time to document information not necessarily needed for the appointment but necessary to get paid—can erode professional fundamentals. It also takes time away from direct patient care, continuing education, and personal and family time and activities.[17-19]

Lack of time could lead to shortcuts being taken and inaccurate information being documented and then perpetuated in the EHR.[20]

The lack of adequate time also erodes the doctor-patient relationship which is at the cornerstone of our profession.[2] It takes time and listening to develop trust between the doctor and the patient. It takes time to maintain an ongoing professional relationship that can last years, even decades. It takes time to become and remain competent with the EHR to fully utilize all of the unique facets of this technology.

Some practices use scribes to help clinicians with the documentation burden.[21-25] This comes at both a monetary cost (needing to see more patients to cover the cost of a scribe), and a relationship cost in that another person in the room could detract from the doctor-patient relationship. The use of scribes has also been identified as a work around for suboptimal EHR functions that results in a lack of adequate doctor-patient time.[21,22]

Possible Solutions

One of the first areas that has to be addressed to ameliorate the effects of the EHR is providing clinicians more time for face-to-face interaction with patients, especially in cognitive specialties. A minimum of 30 minutes with patients should be the standard of care.[14] Also, expanding the use of the interprofessional team—RNs, pharmacists, medical assistants, social workers—to utilize their skills to the top of their credentials and experience.[26,27] And, restructuring payment models to help optimize health (not tests) and pay for the work clinicians do.[28] Additionally, bringing value back to the profession by calling us physicians, nurses, physician assistants, but do not call us providers.[29] We must treat patients as people with health care needs, not simply consumers.

There needs to be pressure placed on developers and programmers of the EHR to improve their platforms, lower the cost of needed changes, and make the systems able to communicate effectively to improve patient care and safety. After all, if the Internet can understand putting in letters that sound close to hypertension even if spelled wrong, why can't the EHR do the same?

Checklist Medicine

EHRs allow for the use of smart phrases, templates, and drop down menus to facilitate documentation.[2,5] These tools might allow less time for documentation, but at what cost? We do not yet fully understand the impact on cognitive reasoning that might arise from the ongoing use of these tools. Will there be increased anchoring bias? Will it affect clinicians' critical thinking skills? Will the checklist simply be filled in since it is there even if the exam/questions were not completed or asked? Can the EHR really capture the subtle nuances of the patient story?

Professionalism concerns occur when clinicians inaccurately check boxes for things that were not done, pad the visit to increase billing, and drop in conversations that did not happen. It is also not completely clear if templates and check boxes really save time, or negatively impact clinician timeliness.[30-33]

On the positive side, if designed properly and evidence-based, the EHR could help reduce unnecessary testing, improve the use of appropriate medications for a specific condition, and remind clinicians of red flag symptoms. In addition, short phrases can be sent to patients with information that was discussed during the visit, and the next steps for their care management.[12]

Recommendations for the use of these tools to better the doctor-patient relationship and clinical care include:

- Developing templates, macros, and smart phrases that are evidence-based;
- Designing tools to reduce unnecessary prescriptions, such as information on viral illness and no need for antibiotics;
- Reducing unnecessary waste, such as unneeded imaging for low back pain or a headache without red flag symptoms;
- Enabling easy modifications of checklists to expand on symptoms or exam findings;
- Allowing for other team members to input information into the patient's history for more completeness; and
- Encouraging educators and attending physicians to model, practice, and teach professionalism with the EHR to students and residents.

Clinical Plagiarism

One of the biggest areas of professional concern with the EHR is the use of "cut and paste," "copy forward," note bloat, etc.[33] This practice is rampant among medical trainees, attending physicians and others. Studies have identified that more than 50 percent of an inpatient note in the EHR is copied from a previous note from the same clinician, and 50 percent of notes may be copied from another clinician.[20,34]

This is clinical plagiarism, and is unethical and unprofessional. In addition to ethical and professional concerns this practice also has significant patient safety issues and legal ramifications.[35]

In one survey of physicians at least 90 percent of respondents admitted to copying and pasting; 70 percent did this daily for clinical notes; and 70 percent noted inconsistencies and outdated information but still used the function. About one-quarter of these clinicians felt it led to medical errors.[36] This is a patient safety issue. We have a professional obligation for truth-telling not only in direct face-to-face communication, but also in our documentation of the patient story and examination. Focusing on initial presentation and not reexamining data and the patient can lead to cognitive biases.

Processes that can reduce the use of copy/paste functions (CPF), and optimize EHRs include:[37-41]

- Discuss and teach that this type of practice should be an exception, not the norm.
- Model best behavior with CPF.
- Shorten notes to only reflect the necessary history, physical, assessment, and plan for that encounter. Do not regurgitate information that is not currently relevant, and never copy notes to enhance billing.
- Write notes daily with accurate information and only reflect the work that has been done by the clinician documenting in the chart.
- Enhance the EHR to allow for documenting where and when a note has been cut and pasted from, and by whom, especially if used in the chart in a future note.
- Emphasize the chronology of the patient's story and the evolvement over time into the EHR. This could be done by periodic summaries, reasoning, and assessments. This is especially important for prolonged hospitalizations or complicated outpatient visits.
- Enhance the EHR to ensure that billing documentation is separated from clinical documentation.
- Update the problem list with relevant medical history so it is available with each patient encounter.
- Use quality improvement tools (such as Plan-Do-Study-Act) to change the systems, and share successes and failures so others can learn.
- Develop guidelines and best practices for how to use CPF ethically and professionally.
- Advocate for reduction of unnecessary state and regulatory requirements that add burden but do not improve patient health or outcomes.
- Be mindful of the hidden curriculum regarding CPF during rounds, in practice, and with organizational expectations.
- Ensure that the clinical interprofessional team utilizes the EHR to the highest level of their skill, and provide education to reduce documentation burden on clinicians.
- Affirm that every section/clinician has access to an EHR superuser to learn tools for improved, less burdensome documentation.

Physicians as Healers and Helpers

The medical profession has always adjusted to new technologies where it improves the care of patients. The EHR is no exception, however, the current structure of this tool has led to increased time away from direct contact with patients, increased regulatory demands, increased time spent outside clinic hours completing documentation, and increased dissatisfaction among clinicians. The mindset that the EHR has not improved, therefore it never will, could harm clinicians' ability to improve their knowledge and skill, resigning them to the notion that the EHR will never get better.[42]

The operability of the EHR must advance similar to other technologies such as laparoscopic surgery. We are not there yet. We must work together in a mutually respectful and collaborative environment to improve the EHR, and the systems in which the care takes place. We must also maintain and value our clinicians and other health care team members. We must embrace a growth mindset and believe that abilities can be developed and improved in order to face the challenges of the EHR and the professionalism issues involved with its use.[43]

Clinicians want to be healers and helpers of people and need systems and tools that allow them to do so professionally and in a timely manner.[43]

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Chapter 5

Burnout, Resilience & (The Logic of) Professionalism: Reframing Our Historical Moment

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Framings can be mental images—what comes to mind when we think of concepts like professionalism, burnout, and resilience. They can also be what is reflected in social action—how we talk about something (the discourses of professionalism or resiliency); how we assess something, how we set up procedures or programs to operationalize or institutionalize an issue. Framings can be about professionalism curricula, a burnout mitigation initiative, or a resilience training module. Eliot Freidson used "logic" to explore the contrasting and interdependent social forces of markets, managerialism, and professionalism.[1] Logics as conceptual frames are comprised of language and associated social practices that make up, and reflect, the organizational and occupational cultures in which they operate.

Borrowing from Freidson's logics, what is the "staying power" or "resilience" of the professionalism movement in the face of bureaucratic and market forces? As we now enter the third decade of this movement, it is telling that despite all of the attention devoted to professionalism within medicine over the past 25 years, there has been no attempt to assess its overall impact.

Ultimately, and by drawing upon a logics framework, we may be able to shift medicine's current professionalism conversation from its seemingly obdurate focus on the behaviors and motives of individuals, be they practitioners or trainees, to the profession as a whole. Is medicine, as a profession, suffering from its own collectively rendered burnout, along with a fundamental crisis of resiliency? Can an individual-focused program of interventions adequately address such a crisis?

The Evolution of Medical Professionalism and Related Framings

While references to medicine's status as a profession have a long historical tail,[2] a more analytic, theoretically driven, and empirical examination of medicine's evolving professional prospects can be traced to the 1960s and the work of Freidson.[3,4] Freidson's dissections on medicine's status as a profession generated a sustained (1970s–1980s) and vigorous debate within sociology as to whether medicine was becoming deprofessionalized, proletarianized, or corporatized, each deploying different theoretical traditions and data sets.[5]

Although the general consensus leaned toward a loss of professional powers, privileges, and social trust, there were alternative voices,[6,7] including later

reconsiderations by Freidson,[1] arguing that medicine was maintaining its professional status and privileges, albeit in the face of increasing challenges. Nonetheless, and regardless of the divergency in voices, the overall debate framed professions and professionals as a collective social phenomenon.

The core unit of analysis was the motives, behaviors, and attitudinal proclivities of individual physicians and medical students occupying a distinctly secondary status. Key issues included the rise of a corporate for-profit sector within medicine, the rise of information technology, and the consequential democratization of medical information (greater public accessibility/less professional control), as well as the increasing employment of physicians by the corporate sector with a consequential decrease in private and small group practices.

Organized medicine, however, was relatively unconcerned as to either the existence or the data-driven implications of these debates. By the 1990s, bubblings about the rise of industry were beginning to surface, but the framings were asociological. Arnold Relman's 1980 classic *The New Medical-Industrial Complex*[8] is a case in point. Although Relman would extensively detail industry's challenges to medicine's clinical autonomy and social status, including the pernicious rise of a for-profit sector within health care, a close reading of his text illustrates that he neither drew upon prior sociological analyses nor considered the threats he chronicled as a "professionalism issue." While both of these lacunae would be rectified,[9] the study of medical professionalism in the 1970s and early 1980s continued to be dominated by a particularly sociological lens, with organized medicine appearing only marginally aware of the data being marshaled or the arguments being made.

When medicine did awaken via what would become its own professionalism movement,[10,11] what ensued was a critical shift in the nature of the problem being identified and thus in the solutions being operationalized. Where sociology had stressed professions as a collective social phenomenon, organized medicine sought to operate from a vantage point stressing the individual attitudes, ethics, and behaviors of its practitioners and trainees. Medicine shifted the discourse from professionalization to professionalism.

Organized medicine repositioned its internal discourses of professionalism away from issues of collective power and politics[12] to those of individual virtues, motives, and behaviors. As points of contrast, Magali Larson's classic sociological research into medicine's "professionalization project"[13,14] documented medicine's relentless march toward market monopolization,[15] its successful creation of market shelters, and its political subjugation of competing occasional groups. This was cloaked in a rhetoric of protecting patients from unscrupulous and deficiently trained "others."

Conversely, one of the earliest and most influential definitional statements of professionalism, the Charter on Professionalism,[16] with its three fundamental principles and 10 professional responsibilities, emphasized physician behaviors and commitments. While the Charter acknowledged the existence of broader social forces (e.g., the explosion of technology, changing market forces, problems

in health care delivery, bioterrorism, and globalization), it did more as a backdrop for explaining why there was a need to re-inculcate core professionalism principles within physician and trainee ranks.

By the early 2000s, a loss of individually-based professionalism had spawned a whirling dervish of interventions as medicine sought to better define, assess, and institutionalize professionalism via an array of codes, charters, curricula, and competencies.[17] Nearly every medical school implemented some kind of formal professionalism curricula, with the identification of professionalism as a core competency within resident training and professional development initiatives.

In short order, a variety of sub-logics began to surface that would both reflect and reinforce this path of conviction. One such abutment began by linking the word "lapse" with that of professionalism. Although not part of the earliest professionalism lexicon, articles by Ginsburg[18,19] introduced a lexical handle ("professionalism lapse") that quickly became the prevailing way of characterizing the problem. Tools were developed to identify lapses[20] and to establish policies to remediate lapses.[21,22] Lapses are less breaches or transgressions than accidental bungles. Moreover, lapses invoke images of individuals. Groups and organizations do not lapse. Lapse also generates a mental image of something transitory, almost self-correcting, and probably requiring nothing more than an informal touching base, as opposed to a more structured and formal intervention that might warrant remediation. Under such logic, it is not surprising to find recommended interventions leaning toward the use of reflective exercises,[23,24] something that literally takes place within individuals, requires few organizational resources, and does not require structural changes. The notions of lapse and reflection place responsibility on the transgressor to embrace the need for corrective action and to employ introspection to self-correct. Not to embrace, not to participate, and not to reflect, ironically becomes a new form of unprofessional behavior.

Reinforcing this lexiconic penchant was medicine's long-standing cultural tendency to bracket deviance as a case of "one or two bad apples." Whether the issue is competence or character, medicine sees the vast majority of its members as being professional. This view of shortcomings as rare and extraordinary produces a tendency to discount (e.g., only "egregious transgressions," or "serious incompetence" need attending to), as well as a counter tendency to double-down on proof that the community is serious about the issue on those rare instances when slippages occur. The calibration of measurement tools to better capture the absence of professionalism reflected these two tendencies.

As definitions were operationalized and as metrics worked their stratification magic, it became apparent that informal and idiosyncratic responses to lapses were not organizationally defensible. Offices of, and programs in, professionalism were created and best practice models circulated.[25,26] Metrics began to trace program effectiveness.[27] Reclamation and redemption had arrived via trainee professionalism.[28,29]

The organizational placement of remediation initiatives proved critical. Different types of organizational responses, particularly if they were associated with offices of compliance, offices of human resources (HR), or with surveillance-type monitoring tools (pre- or post- intervention) contributed to a further shift from emphasizing professionalism.[30] Also contributing to these shifts in meaning was the tendency to see remediation as a function of the organization rather than within the profession itself. Never far from the surface, suspicions began to ferment that these efforts were nothing more than new versions of HR practices designed to reinforce conformity.

Medical students pushed back against what they saw as an inappropriate and discriminatory pounding by faculty-led and administratively-driven professionalism initiatives.[31] Some students moved to ban the "P word" from the curriculum.[32] Others decried what they saw as the merger of professionalism with faculty power and privilege—a "weaponization of professionalism."[33] Professionalism assessments were seen as "just another test."[34,35] Students began learning lessons about professionalism that were, in some cases, quite the opposite of what was being formally presented. Professionalism instruction, along with professionalism assessment, began to form a hidden curriculum of professionalism.[36]

What traditionally had resided within informal and more tacit social practices was now becoming an increasingly formal and intentional professionalism presence. The rise of formal codes, charters, curricula, and competencies created two countervailing tensions. The codification and institutionalization of professionalism within formal structures made instances of unprofessionalism easier to identify and call out. These formalization efforts created the potential for gaps between the new professionalism talk (via those codes, curricula, etc.) and its walk, what actually was taking place in the classroom and the clinic. Thus, the professionalism movement gave rise to a state of affairs that had not existed prior to the movement.

These gaps represented both a problem and a new professionalism challenge. As attention shifted, there was an emerging awareness that the "fix" (at least in principle) lay not with the motives and behaviors of individuals, but within the domains of organizational practices and culture. Medical insiders began to amend their myopic focus on "lapsed individuals" and shifted to acknowledge the crucial role of organizational structure and culture. Nonetheless, educators and administrators continued to find it far easier to develop new individual-focused metrics and curricula than to challenge and change the culture of a clinical practice environment.

It was within this bevy of schisms and shifts that issues of burnout and resilience began to surface and take on the mantle of a professionalism issue. Although isolated references to both burnout and resilience can be traced to the 1980s and 1990s,[37,38] by 2010 there appeared sustaining academic literature. Programmatic interventions grew, reflecting the predominant framings of medicine's modern day professionalism movement, mapping issues at the individual level. Over time, burnout and resiliency became "professionalism" issues; however, attention would gradually shift to organizational factors, although more in the case of burnout than resilience.

In 2002, Shanafelt and colleagues sought to draw associations between an individually framed measure of burnout (the Maslach Burnout Inventory) in an internal medicine residency program and resident self-reported patient care practices targeting "suboptimal care."[39] Although the study is similar to earlier burnout prevalence studies[38] in identifying working conditions as a contributing factor, Shanafelt took an important early step in addressing issues of context by referencing the hidden curriculum and how resident burnout can contribute to increases in cynicism and decreases in compassion among medical students. Burnout was not identified in this study as a "professionalism issue," nor were changes in resident work environments emphasized as a primary remedial intervention.

Studies began to frame burnout as a professionalism challenge, albeit at the level of individual practitioners and trainees.[40,41,42] To be a kind, compassionate, high-integrity doctor, one needed to avoid the exhaustion, depersonalization, and sense of professional inefficacy that comprised the burnout syndrome. Organizational responses frequently emphasized educational and skill-based interventions with the goal of promoting individual practitioner self-care, mindfulness, stress-reduction, and related coping skills. It would be another decade before the sheer weight and skewness of these organizationally-sponsored remediation strategies became so glaring that burnout leaders such as Shanafelt began to emphasize that enduring solutions lay not in teaching physicians to better cope, but in changing the structural and cultural aspects of medical work.[43,44] Nonetheless, systematic reviews of physician and trainee burnout continue to document the continuing prevalence of individual-level framings and responses.[45-49]

In contrast to burnout, the trajectory of resilience has been somewhat burdened by its status as a response to a problem rather than as a problem in its own right. Resilience's singular framing as a solution often precludes critically examining resilience initiatives as potentially problematic. Contemporary resilience literature stresses the importance of curricula-based programmatic interventions and to teach trainees and clinicians "to manage difficult circumstances."[50]

Resilience as a response/solution lacks the gravitas and framing from which to demand and launch organizational change. While resilience can be tied to issues such as patient safety and quality of care, the essential frame is different from that of burnout. Burnout endangers patient care whereas resilience engenders it. While both burnout and resilience come with a heavy psychological profile, the presence of a cause and effect framework within the burnout literature more readily allows social and structural factors to be considered as an essential part of the picture. Resilience lacks these entry points.

The Logics

Freidson's three logics (professionalism, bureaucratic managerialism, and markets) depict three distinctive ways of organizing work.[51] As purely analytic

constructs, they capture essences, but otherwise do not exist in real life. Medicine contains all three logics, albeit in different configurations depending on existing socio-political circumstances.

In an ideal, albeit fictional, professionalism world, there is no burnout. Nor will there be any need for resiliency training. Professionals control the content, context, pace, and meaning of their work. In the absence of competing interests, and thus countervailing logics, the result is the equivalent of a work-based Eden.

Within work settings populated by all three logics, burnout stands as a marker of potential professional diminishment/encroachment. The high prevalence of burnout among practitioners and trainees reported in most burnout studies may signal a state of occupational deprofessionalization, or perhaps even proletarianization, which may be evidence of a contested or weakened/diminished professional logic relative to the logics of managerialism or the market.

During the 2019 AΩA Professionalism Conference, we offered attendees three different visual models of Freidson's three logics:

1. A traditional Venn Diagram depicting overlapping spheres of interest;
2. A crushing model in which the professionalism set appears to be obliterated under the weight of one or both of the managerial and market sets; and
3. An infiltration model in which the logic of professionalism appears to be infused by one or both of the other two.

In the first model, managerial and/or market sets dominate the picture—leaving the third (professionalism) diminished in importance but unchanged with respect to its location/positioning within the diagram. Overlaps may occur but the absolute size of the individual sets remain stable.

The second model depicts less of a reduction in size than a repositioning of the professionalism component as it appears obliterated at the bottom of the diagram.

The third, a contamination/infiltration model, contains numerous possibilities including a visual representation where the professionalism segment may appear to be the largest of the three, but where its internal logics have been taken over by one or both of the other two.

Of these three possibilities, and as the result of the group exercises, the third is a more helpful and valid way to imagine medicine's current professionalism conundrums.

Our preference for an infiltration model is tied to what we see as examples of how professionalism has been hijacked by either market and/or bureaucratic logics. One key reframing is a core tenant of medical professionalism, the primacy of patient welfare, whether this is framed as "patient-centered care," "the needs of the patient come first,"[16] or some related value statement. Closely tied to this core statement of professionalism is medicine's traditional ethic of altruism and selfless service. Recently, there has been a co-mingling of market (the bottom line) and professional (patient first) logics. This hybritized newcomer appears as "we need

to keep the doors open in order to do the best job for our patients/customers." This logic prioritizes the market and makes market considerations a necessary precursor to attaining professional goals. The fact that this logical sequencing has come to sound both "obvious," and "perfectly reasonable" within contemporary and corporatized medical settings is but one piece of evidence suggesting a re-logitized medical workplace.

Also tied to medicine's ethic of selfless service and altruism, the logics of managerialism can be used to co-opt this ethic. Physicians are urged to do more with less, pitch in, stay late, and/or log in from home. Although this is often accompanied by an ethic of "meeting the needs of our patients," the demands are organizational not professional.

Metrics dominate, whether they be new patient visits or revenue targets. This commandeering was captured in a recent *New York Times* Opinion piece "The Business of Health Care Depends on Exploiting Doctors and Nurses," by physician Danielle Ofri.[52] For Ofri, medicine's traditional ethic of service is being "cynically manipulated" by a corporatized system that has "pushed the productivity numbers about as far as they can go," and thus has turned to "the professional ethic of the medical staff members to meet these new work-based demands given what the organization now recognizes as the wonderous elasticity of altruism."[52] Organizational practices that are not in the best interests of patients become rescued by staff members unwilling to abandon their patients. The professional call to altruism is co-opted.

Another managerial/bureaucratic logic—standardization—infuses it, over time, into traditional professional concerns with quality. This fusion has come to be relatively non-controversial. In various movements such as evidence-based medicine, medical errors, and practice variations, there has been a shift from a traditional linking of quality as something determined by individual practitioners to something more broadly viewed as standards of care. Practice standards and guidelines are routinely proposed and implemented by a diverse array of groups, only some of which are technically medical-professional.

None of this is to say that "practice variability" is good, bad, or indifferent, or to say that business considerations are not foundational to modern medical practice. Logics traditionally associated with managerialism or the market have taken root within medicine, and have become invisibly co-mingled with the logic of professionalism and thus fundamentally inverted its traditional meanings.

The Exercises

Across medicine's evolving 25-year professionalism movement, the prevailing focus has been on the individual. The emerging attention to organizational factors has tended to be scripted in frame-reinforcing ways, and thus as a context/cause in shaping individual behaviors. However, there has been no examination of the movement's impact as a whole.

We conducted several group exercises as a part of the 2019 AΩA Professionalism Conference. Two questions focused on the movement's impact over time. The first, a two-part question, used the metaphor of batteries in asking attendees to score the amount of charge they saw in medicine's professionalism battery at two points in time when the movement was first launched in the early- to mid-1990s, and today. Attendees were asked to draw a line on an index card and to label the left end of the line "TD" (totally dead) and the right end "FC" (fully charged). They were then asked to mark the midpoint on the line and to place an "X" anywhere between these two extremes in terms of where they saw the movement's "charge" in the 1990s. Attendees were then asked to place a second "X" (labeled T2) depicting where they saw medicine's professionalism battery today. Fully charged batteries, attendees were told, are able to function under extreme conditions. Conversely, depleted/empty batteries will fail to function no matter how favorable the conditions. The more inhospitable the environment, the more taxed the battery, and if conditions sufficiently worsen, even the most fully charged battery may falter. Although the terms burnout and resilience were not used in these framing instructions, both the image of battery burnout and resilience were very much a part of our thinking when the battery metaphor was selected.

Because each set (T1/T2) used the same line, and were sequentially marked, they necessarily were relatively positioned by respondents. For this reason, these two pieces of information are presented as separate distributions.

Figure 1

When medicine's modern day professionalism movement was first launched 25 years ago, what did its professionalism battery look like? Was it totally dead (TD)? Fully charged (FC)? Somewhere in between? Please mark your line with an X.

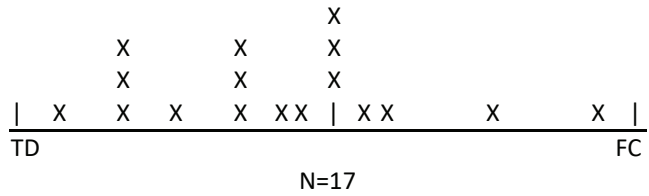
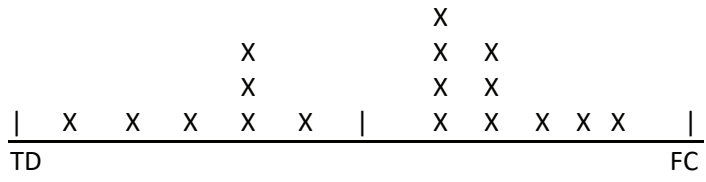


Figure 1, with its T1 focus on the early to mid-1990s, shows a range of responses (converted to rough percentages). The X that appears on the far left of the line depicts a virtually negligible battery charge (10 percent). Conversely, the X to the far right (95 percent) indicates a state of affairs requiring little to no intervention. These are markedly different characterizations of a time when leaders such as Arnold Relman (AΩA, Columbia University Vagellos College of Physicians and Surgeons, 1945), George Lundberg (AΩA, University of Alabama at Birmingham

Figure 2

What is the charge level of medicine's professionalism battery today?



N=17

School of Medicine, 1956), Jerome Kassier, and Marcia Angel (AΩA, Boston University School of Medicine, 1999), were quite vociferous about the threats of big business, the marketplace, and bureaucratic encroachments to medicine's status as a profession. A majority of those responding to this question (N=17) placed their X to the left of the midpoint, albeit with some dissenting voices.

With Figure 2, the distribution of Xs has shifted. Ten of the 17 respondents saw a somewhat positive professionalism state of affairs, while seven were more muted in their estimate.

Table 1 captures the change data for all 17 respondents. Nine recorded some level of positive change with a typical T1/T2 change being a shift from a mid-range negative (25 percent) to a slightly over the midline (55 percent) positive. The remainder,

Table 1
Question 1: T1 versus T2 Differences

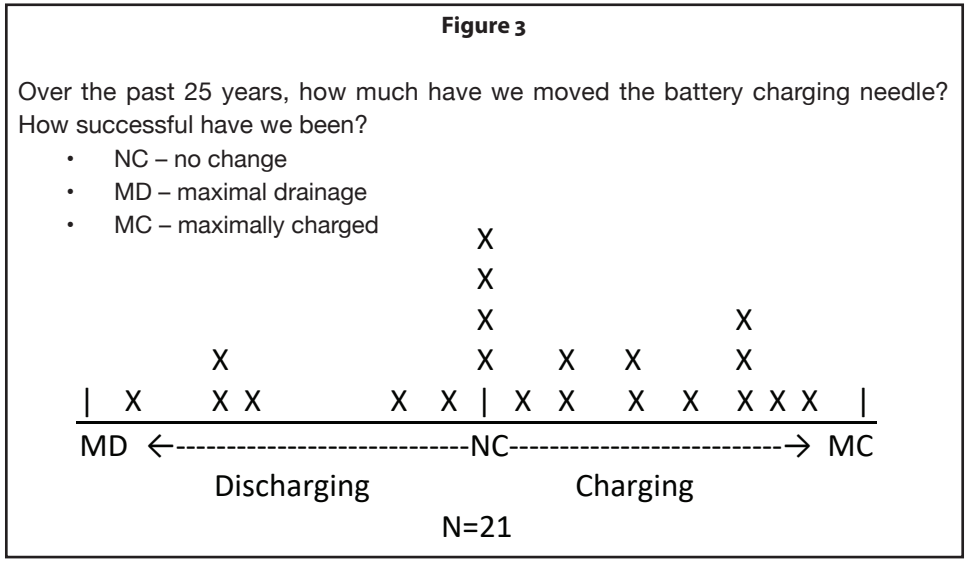
Respondent	T1/T2 Scores	Amount Shift	Direction
1	70-70	0	↔
2	55-75	20	↑
3	40-60	20	↑
4	40-60	20	↑
5	50-25	25	↓
6	25-55	30	↑
7	25-55	30	↑
8	95-10	85	↓
9	51-49	2	↓
10	50-25	25	↓
11	45-35	10	↓
12	30-40	10	↑
13	30-65	35	↑
14	10-80	70	↑
15	25-60	35	↑
16	50-30	20	↓
17	20-60	40	↑

with one exception, recorded a slide. In addition, there were two attendees with dramatically opposite views. One saw a professionalism crash (with a T1 going from 95 percent to 10 percent at T2). The second saw a dramatic flowering of professionalism prospects with a T1-T2 shift from 10 percent to 80 percent.

Because these two questions called for relatively positioned Xs, we asked a second and more direct question about change. This time we employed the metaphor (and picture) of a battery charge indicator. We asked attendees to take a second card, draw the line, anchoring the left end with a "MD" (maximal discharge), the right end with a MC (maximal charge), and with the line's midpoint marked "NC" (no change). The group was instructed to imagine the left half of the line as representing a state of discharge—from slight just to left of the midpoint to maximal drainage at the absolute left end of the line. The right side of the line was to indicate increases in charge from slight to maximal. As background, attendees were told to assume that the aggregate of artifacts produced during medicine's professionalism movement (e.g. articles, books, conferences, reports, definitions, codes, charters, competencies, curricula, assessment tools, and accumulated data) were designed and deployed in order to have a positive impact on medicine's professionalism status thus moving it toward a more fully charged state. The movement as a whole, attendees were told, was intended to make medicine's professionalism battery more resilient.

Half of the respondents (N=10/21) saw either zero (N=4) or a negative (N=6) needle shift in medicine's professionalism battery. Conversely, N=6 saw what might be characterized as a moderate amount of positive change, while N=5 saw change of a more substantive nature.

Figure 3



The presentation and related exercises did not allow time for discussions around any of the issues raised by these responses, including why there were such divergent views and what factors might have been at play within individual assessments. Also, we did not ask any questions specific to either burnout or resiliency. We were taken aback by the overall darkness of the two data sets—a view decidedly at odds with what organized medicine might have been hoping to achieve.

Discussion

Medicine failed to build on a previous and sociological examination of medicine as a profession, and instead chose to focus on physician and trainee professionalism. This critical shift in the framing of the problem had a decisive impact on medicine's responses to that problem. There does not appear to be a compelling picture of impactful and positive change over time. While a conclusion of no or negligible impact may be due to a disproportionate ramping up of market and managerial logics relative to medicine's professionalism initiatives, the end game remains the same. Organized medicine's individually focused game plan has not been particularly robust or successful.

The framing of logics, and medicine's current professionalism logics, have been co-opted by managerial and/or market logics. It is as if there are three opposing armies where the troops of one come to speak in a tongue that has been infused with elements of the other two languages, and where the change is so gradual that it goes either totally unnoticed, or comes to be accepted as right and reasonable. None of this makes the new language inherently wrong, but it is a new way of speaking and thinking. The logic of professionalism is similarly altered, but without insider outcry or opposition.

Using the two individuals who gave totally opposite characterizations of medicine's professionalism movement, it is possible that given the same set of exercise instructions, what came to mind for some had more to do with medicine's status as a profession (professionalization) than the literal wording of the question, which had to do with the professionalism movement. A new narrative—may be: "Yes, organized medicine has made issues of professionalism more explicit and formal. It has created definitions, measurement tools, curricula, and remediation practices. It has moved the issue from the implicit to the explicit. It has made considerable and noteworthy progress, but at the same time, medicine's status as a profession is under assault, and losing ground."

Both considerations may have been in play in shaping how meeting attendees responded to the two questions. If so, then what we have here is a picture that at best shows a tremendous amount of effort yet only a modest impact for an occupation that remains under serious and continuing threats from market and managerial forces.

Where to From Here?

Recent work by two burnout researchers, Tait Shanafelt (AΩA, University of Colorado School of Medicine, 1998),[44] and Colin West (AΩA, University of Iowa Roy J. and Lucille A. Carver College of Medicine, 2000),[53] indicates that burnout is a systems issue and not one that is exclusively addressed at the level of individuals via programs to promote individual health/healthy behaviors. Although there have been similar calls within the professionalism movement to focus on organizational determinants,[54,55] these calls are structured around addressing system drivers in order to impact the burnout of individuals. But, what if we have dysfunctional systems, where metrics of providers or patients show no problem? Do such systems still need fixing? Yes, if only because of the possibility that underlying logics of professionalism can be hijacked and transformed into something to oppress rather than inspire. To date, burnout still is being framed as a problem of individuals. Although there is isolated and rarely cited work on "organizational burnout" both within,[56] and outside,[57] of the medical literature, the prevailing frame remains "the potential for burning out employees…"[58] and thus burnout as taking place *within* organizational settings rather than the burnout *of* organizational settings.

There is, within the organizational sciences and management literature, a robust discussion of organizational resilience and resilience as a property of organizations.[59,60,61] While the relationship between resilient organizations and resilient employees is complicated, understanding organizations as complex social entities is an important step in addressing resilience issues in medical work from an organizational perspective.

There can be a change in logics and frames. The rise of chief wellness officers[62] and new organizational layers will act as formidable change agents within leadership structures instead of functioning as organizational apologists. However, such positions are so new they preclude prognostication. The necessary change is with medicine's logics of professionalism. Organized medicine will need to devote more attention to its own slide into deprofessionalization and proletarianization in order for any wellness, resilience, or burnout mitigation strategies to make a difference. Although the Accreditation Council for Graduate Medical Education (ACGME)[63,64] and the American Board of Internal Medicine (ABMS)[65] are devoting considerable resources to establishing internally-regulated, evidence-based education and certification systems to promote professional autonomy and public trust, medicine's professionalism logic remains infiltrated. Unless this infiltration is addressed, any hope for the contemporary wellness, resilience, and burnout mitigation strategies to move medicine's professionalism needle in a positive direction over the ensuing three decades is muted at best.

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Chapter 6

For Whom the Bell Tolls: The System and Cultural Influences Affecting the Next Generation of Health Professionals

Holly J. Humphrey, MD, MACP, and Heather Snijdewind, BA

> No man is an island, entire of itself; every man is a piece of the continent, a part of the main…any man's death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bells tolls; it tolls for thee.
>
> —John Donne[1]

When John Donne penned the words "for whom the bell tolls" in the 17th century, church bells rang regularly to mark various events in daily life. In this particular context, the tolling refers to funeral bells. Donne began writing *Devotions Upon Emergent Occasions*, a compilation of meditations written daily during a serious febrile illness. The words "for whom the bell tolls" were written on the eve of his daughter's wedding while he was very ill and believed he was dying. The insights he gained over a lifetime, together with the seriousness of his health condition, created an urgent need to pass those hard-earned thoughts to the next generation. Although he surely could not have known it at the time, with these words, the message of human connectedness would live on through the ages. His words reflect the idea that humanity is socially and spiritually interconnected—when one person suffers, everyone suffers.

When considering the system and cultural influences affecting the next generation of health professionals, the message behind Donne's words are apt. The interconnectedness of students and faculty is obvious. Patients, their families, and caregivers within this ecosystem are at the center and connected to each other as well as the health professionals who care for them. All are dependent on, and interdependent with, one another. We are all in this together!

When students, residents, and other trainees learn the knowledge, skills, and attitudes expected of health professionals, their future patients benefit. If trainees are not well cared for, and not well taught or supervised, then there is potential for a negative impact on their current and future patients. Likewise, if students, residents, and graduate students are well cared for, with access to excellent teaching,

supervision, and mentorship, then their competence and expertise thrive. If they manage highly stressful situations within a supportive environment they may develop resilience as part of the skills in their toolbox.

Contemporary education for health professionals takes place within the context of health systems that may have elements consistent with both superior performance and serious deficiencies. These systems, and the microsystems within, are where clinical education happens. When these environments are not optimal for learning, the consequences are many, including the possibility of ill-prepared health professionals, an overwhelming amount of stress for the individual trainee, and the potential for burnout. While many interventions may address the fracture lines in the overall system, skills of personal resilience and coping may sustain the individual health professionals and their students and trainees.

The Statistics

The next generation of health professionals is burning out. In a 2012 survey, 56 percent of responding medical students, and 60 percent of residents and fellows reported experiencing at least one symptom of burnout—emotional exhaustion, depersonalization, and low feelings of personal accomplishment caused by work-related stress.[2,3] In addition, 58 percent of medical students, and 51 percent of residents/fellows screened positive for depression, and nine percent of medical students and eight percent of residents/fellows reported suicidal ideation in the past year.[2] The same study showed that medical students and residents are more likely to be burned out, fatigued, and depressed than peers who pursue other careers.[2] While medical training seems to be the peak career stage for distress, troublingly high rates of burnout, depression, and fatigue persist among early career physicians.[2]

The alarming prevalence of burnout and distress among medical students and trainees urges examination of the context within which the next generation of health professionals learns and trains; after all, no man is an island.

Fueling Burnout

Burnout is a collection of symptoms—exhaustion, cynicism, diminished feelings of accomplishment—arising from work-related stress.[4] In Dr. Richard Gunderman's (AΩA, University of Chicago Pritzker School of Medicine, 1992) words, "Burnout at its deepest level is not the result of some train wreck of examinations, long call shifts, or poor clinical evaluations. It is the sum total of hundreds and thousands of tiny betrayals of purpose, each one so minute that it hardly attracts notice."[5] Gunderman articulates an observation that may resonate with many medical educators, program directors, and mentors: moral injury fuels burnout among medical trainees.

In this context, moral injury results from the inability to provide high-quality care within a fractured health care ecosystem plagued by increasingly complicated

system inefficiencies.[6] In various school-sponsored ceremonies, medical students recite the Hippocratic Oath and affirm their commitment to putting their patients first, and practicing their profession with conscience and dignity. After they swear this oath, however, they enter an environment—a culture—that defies their promise. The culture of the health care industry—that is, "the cumulative effect of what people do and how they do it"—is often incongruous with the values and ideals of the health professions.[7]

Placed in an impossible situation that impedes their ability to deliver care at the highest level, young health professionals may ultimately feel that they are letting down their patients, mentors, supervisors, and themselves. The dissonance between values and reality is morally injurious. This moral distress was first described in nurses who were in situations where they could not fulfill their obligations to their patients because of intractable value conflicts, ineffective communication, staffing policies, or other pressures on health care systems.[8] This moral distress is now well recognized in other health professionals.[9] Students and residents are especially vulnerable to moral distress given the hierarchical nature of medical training.[9,10]

Frameworks

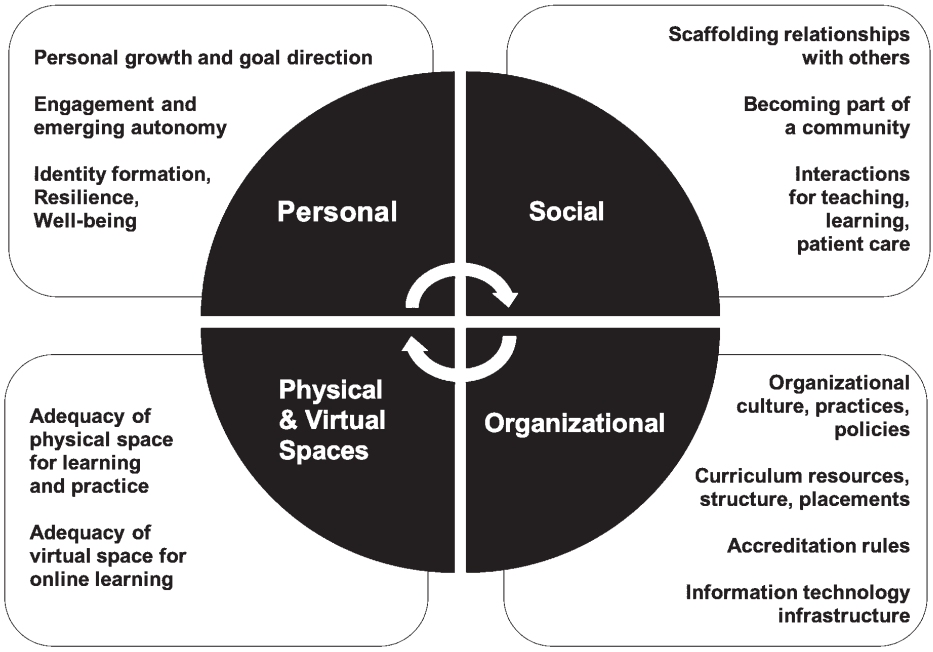
Recently, the National Academy of Medicine published a report on a systems approach to professional well-being.[11] This consensus report puts forward a framework for considering the system in which our health professionals work and learn. The framework organizes the system into three levels: frontline care delivery, the health care organization, and the external environment.

Within frontline care delivery, care team members (i.e., clinicians, staff, learners, patients, families) may be directly affected by local organizational conditions, technologies, activities, and the surrounding physical environment. Within the health care organization level, additional factors such as leadership and management, governance, and organizational rewards and benefits may impact care team members as well as the other factors within the frontline care delivery level. Both of these levels are situated within the third level, the broader external environment, which includes factors such as the health care industry, laws and standards, and societal values. These large-scale, pervasive aspects of the external environment impact and interact with the factors and individuals within the other two levels.[11]

While it is crucial to understand and address issues at all of these levels, some medical students may perceive that their medical school faculty and administrators prefer to intervene at the individual level, such as by offering resilience skills training, rather than address a complex and fundamentally fractured system. This emphasis on individual factors may lead young health professionals to wonder why their teachers and leaders refuse to make changes to the health system. It is obvious to the students that the system needs changing more than they need resilience training.

The external environment does capture significant attention, and is the subject of numerous political debates on how to fix American's health care system, specifically the learning/practice environment and the socio-cultural factors contributing to the problems.[12]

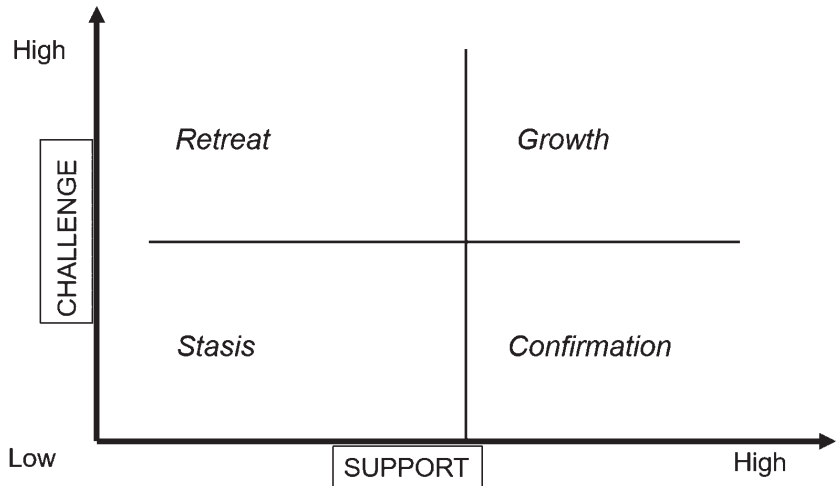
A learning environment consists of "the social interactions, organizational cultures and structures, and physical and virtual spaces that surround and shape participants' experiences, perceptions and learning."[13] The personal, social, organizational, and physical and virtual components of learning (and practice/work) environments are interconnected, overlapping, and interactive.[12] Learning and practice environments are situated within a larger society and culture that influence the participants and the learning/practice environment itself.[11,12]



The four interactive components of the learning environment.[12]

The Accreditation Council for Graduate Medical Education (ACGME)[14] recognizes the importance of the learning environment on the personal and professional well-being of residents and fellows. Well-being is among the six focus areas of the ACGME's Clinical Learning Environment Review (CLER) program, along with patient safety, health care quality, care transitions, supervision, and professionalism.[15] Likewise, the Liaison Committee for Medical Education, which accredits medical schools, and the accrediting bodies for nursing schools all have explicit standards related to the learning environment.[16,17]

While the accrediting bodies are setting standards and making assessments at the institutional level, it is critically important to focus on the individuals who are learning within these environments. Laurent Daloz developed a helpful framework that captures how adults learn.[18] He conceptualized this learning process by plotting the degree of challenge that adult learners face against their level of support. Medicine is a complex, challenging field, and so health professionals and medical students often confront problems and situations with high degrees of challenge. Growth occurs when a learner has high levels of both challenge and support. When support is low or absent, however, they will retreat from learning opportunities.



Daloz's framework of how adults learn.[18]

Dilemmas Facing Learners

Medical students often encounter ethical dilemmas early in their education. As they learn the fundamental principles of cell and molecular biology, genetics, and human physiology, they also encounter ethical dilemmas both in the classroom and in the clinical setting that may be deeply troubling.

Moral distress occurs when clinicians find themselves in situations where they are unable to act according to the standards of their profession, and in accord with the oaths that they promised to live up to.[19] These morally challenging situations present in many ways, sometimes taking the form of constraints imposed by an insurance company, and other times by the staffing assignments of a given health care institution. Sometimes the dilemmas come from other health care professionals, or from patients and families.

Other dilemmas faced by learners may not represent moral or ethical challenges, but result from pressures in situations where they are asked to do one thing but know that to succeed they must do another.

The External Environment: Prescription Drug Costs

The high cost of medications in the United States is a serious issue, and one that has grown more urgent in recent years. Many patients ration their medications, go without, or try to purchase medications online from other countries. One prime example is insulin, and its skyrocketing cost. Although the scientists who discovered insulin sold the patent for just $1, insulin today is costly and lacks reasonable generic alternatives. The price of the insulin Humalog increased 1,157 percent over the last 20 years, meanwhile, the price of a gallon of milk rose 23 percent.[20] The high price of many insulins is partially due to insulin manufacturers continuously modifying their formulations and patenting them, thereby maintaining the drug's brand-name status. Health insurance companies continually change which insulins they cover and which (if any) insulins are preferred on their list of covered drugs. This twisted business model leaves doctors and patients to deal with the economic and health repercussions while drug manufacturers, pharmacy benefit managers, and insurance companies chase profits.[21]

When clinicians in training witness the impossible situation that many patients face in gaining access to their medications—sometimes life-sustaining drugs—it is instantly clear that a structural barrier exists, in direct conflict with the oath that they took at their White Coat Ceremony or upon graduation to "…respect the hard-won scientific gains of those physicians in whose steps I walk…[and] remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability…."[22]

Step 1 Exam and the Empty Classroom

Over the last several years, a well-known phenomenon has been taking place in medical schools across the country. Students feel intense pressure to generate the highest possible score on the United States Medical Licensing Examination Step 1 in order to have the most attractive application for competitive residency programs.[23] As a result, they use various online resources and study intensely for weeks or months, having organized a parallel curriculum to the one formally covered in their medical school. Consequently, they may no longer attend class.

In February 2020, the National Board of Medical Examiners (NBME) announced a decision to no longer report a numerical score for Step 1, and instead to report a pass/fail assessment. The NBME will continue to report a score for the Step 2 exam which will likely fuel some of this same anxiety and behaviors. While there may be less impact on classroom attendance, there may be more expectations for students to do audition rotations at other institutions and to distinguish themselves as competitive candidates for residency programs. These pressures on students may well create new frustrations for faculty.

Imagine the stress that students feel. Imagine the frustration of faculty members who prepare for class and find themselves standing in a room of empty chairs, or

as an attending physician on an inpatient service without any students to teach and guide. What has happened to the learning environment? What has happened to the culture? What has happened to the commitment in the oath to "…respect the hard-won gains of those educators in whose steps I walk…?" [22]

Inequity

Numerous published studies demonstrate inequity among academic faculties in medicine and science related to grant funding, authorship, and promotion to leadership positions.[24,25] More recently, similar inequities are reported related to student assessment and the cascading effect that this may have on selection for residency programs and awards. This is described in terms of the clinical evaluations of students at the University of California San Francisco, and the cascading effect on downstream opportunities related to relative competitiveness for residency programs and selection for awards.[26]

In another instance, Boatright and colleagues described a cohort study of more than 4,000 students where the potential for racial bias was evident in the rate of election to the Alpha Omega Alpha Honor Society, which was nearly six times greater for white students compared with black students and nearly two times greater for white students compared with Asian students at Yale New Haven Hospital.[27]

How does the individual student who experiences bias or discrimination in their performance evaluation, or who witnesses this on behalf of a classmate, reconcile this with the Hippocratic Oath, to "…remain free of all intentional injustice?"[22]

A Way Forward

These pressing problems do not result from individual-level factors that resiliency training can ameliorate. These issues are systemic, and require interventions within the system to create a culture and a learning/practice/work environment in our health care education and delivery system that functions optimally for all.

Accreditation levers need to stay in place for all health professions education programs, but better measures and assessments will help us understand opportunities for improvements. Likewise, the ACGME's CLER program will send important signals to institutions and to their trainees about the six key domains of the CLER focus, and the vital importance of teaming and psychological safety for all working in the patient care environment.[28,29]

Josiah Macy Jr. Foundation Recommendations

Foundations also recognize that learning environments powerfully influence the well-being of future health professionals. In April 2018, the Josiah Macy Jr. Foundation convened health professions education and health care delivery leaders,

patient advocates, educational accreditors, and learners to generate specific, comprehensive, consensus recommendations for improving health professions learning environments. These recommendations aim to enhance the well-being of all learning environment participants, including learners, educators, practitioners, and patients:

- Governance bodies and executive leadership of academic and health care organizations should ensure positive learning and work environments and be held accountable for allocating the resources to achieve this.
- Executive leaders of health professions education and health care organizations should create cultures in which resources, policies, and processes support optimal learning environments across the continuum of health professions education.
- Those in positions of responsibility for learning environments in health professions education and health care organizations should ensure appropriate, flexible, and safe spaces (physical and virtual) for learning.
- Leaders of health professions education and health care organizations should ensure continuous learning and development opportunities for their faculty and staff to improve learning environments.
- Those in positions of responsibility for learning environments should be committed to continuously evaluating, improving, and conducting research on those learning environments.
- Health professions education and health care organization leaders and accreditors should engage in policy advocacy for improvements in health professions learning environments.[13]

These recommendations offer a vision of, and a roadmap to, an attainable future where the next generation of health professionals might thrive.

A New Tomorrow

Patients, family members, students, residents, fellows, graduate students, and faculty, together with other health care professionals, should be able to work together with institutional and policy leaders to create change locally and nationally. When this happens, then the next generation of health care professionals will no longer wonder why their teachers and leaders try to fix them instead of fixing the broken systems in which they learn, work, and care for patients. Trainees will have no need to ask for whom the bell tolls, because we will live and work each day knowing that, "No man is an island, entire of itself; every man is a piece of the continent, a part of the main…any man's death diminishes me, because I am involved in mankind."[1] We will live and work actualizing our interconnectedness on multiple levels. To achieve health and provide health care, we must have environments with systems that support their people.

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Chapter 7

Development of a Resilient Professional Identity

Molly Blackley Jackson, MD

The profession of medicine has a long history of being deeply rewarding and incredibly challenging. Physicians dedicate their lives to their work, prioritize care of patients over self-interest, go the extra mile to serve the suffering, and journey with their patients through trying times. Resilience is a part of physicians' identity.

The profession of medicine has experienced the commercialization of medical practice and the relentless emphasis on productivity. In addition, the electronic medical record and declining public trust in the profession contribute to an epidemic of physician burnout. Some of the rewards of the practice of medicine have diminished, including time at the bedside, longitudinal relationships with patients, opportunities for focused teaching and mentoring, and support for engaging in deep scientific inquiry.

Many physicians are adapting and responding. The newest generation of physicians, who are fiercely passionate about patient advocacy, are prioritizing more firm personal and professional boundaries. At the same time, academic medical centers and schools, community hospitals and clinics, and research teams are demonstrating tremendous resilience by, "reinventing themselves and creating a sustainable model for the future."[1] This is a critical opportunity to recreate our educational and professional environments to be more efficient and effective while maintaining a focus on compassion and human connection. It is also an opportunity to prioritize the best interests of patients and communities, upholding integrity, and maintaining competence in practice.[2] How we approach and overcome these unique challenges, as individual physicians and as a profession, will shape the identity of our profession for many years to come.

Resilience in the Medical Profession

Resilience has been defined as "responding to stress in a healthy way…bouncing back after challenges and growing stronger."[3] The medical profession has long cultivated an identity of resilience among physicians. Sir William Osler in his 1889 address to graduating medical students encouraged individual resilience:

> Be calm and strong and patient. Meet failure and disappointment with courage. Rise superior to the trials of life, and never give in to hopelessness or despair. In danger, in adversity, cling to your principles and ideals.[4]

His essay was entitled "Aequanimitas," from Latin aequus (even/calm) and animus (mind/soul). Osler felt the qualities were critical for physicians.[4]

Marcus Aurelius described cultivating a personal approach of resilience in Meditations. He wrote:

> Be like a rocky promontory against which the restless surf continually pounds; it stands fast while the churning sea is lulled to sleep at its feet. I hear you say, "How unlucky that this should happen to me!" Not at all! Say instead, "How lucky that I am not broken by what has happened."[5]

The modern concept of resilience gained traction in the child psychology literature more than 50 years ago, when researchers studied how children responded to adverse childhood events.

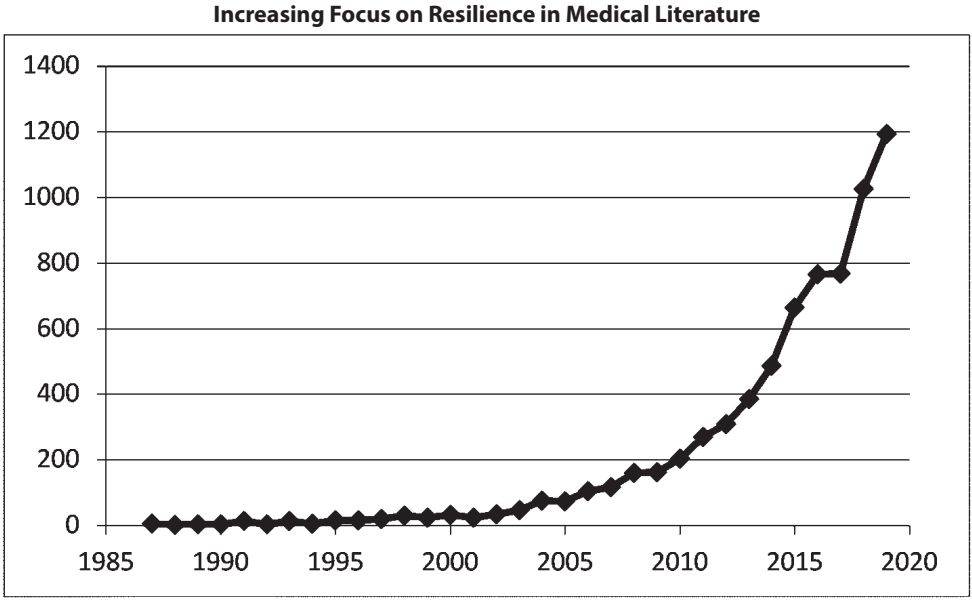
There has been an explosion of interest in the concept of resilience in the biomedical literature, particularly in the last few decades. This may be related to a confluence of several factors including the increasing challenges faced by physicians. There may also be an element of generational difference, in which the elders of our profession who have long sacrificed much of themselves to weather the storms and serve others sense that some medical students, trainees, and junior physicians are reluctant to do the same.

There is concern that the shift of American health care to a business or manufacturing model driven by financial gain may take advantage of physicians' professional identity of resilience. Physicians may feel morally obligated to "stand like a promontory at sea"[5] even in untenable circumstances. While demonstrating this kind of brawny individual resilience is critical in many challenging professional moments, it is difficult to sustain and limited in its effectiveness. Further, it may contribute to exhaustion and depersonalization, which prevents sustained resilience and long term success.

Our profession is beginning to create space for vulnerability, authenticity, self-compassion, and meaningful support. Medicine will be a stronger and more sustainable profession if we use evidence to create and cultivate an evolved resilience, which is nurtured within relationships with colleagues, communities of practice, teams, and organizations, resulting in mutual flourishing. However, we must take steps to make this evolved resilience standard operating procedure for how we do business, and part of our professional identity.

Professional Identity Formation and Resilience

The concept of professional identity formation (PIF) describes the progressive and transformative process that occurs when an individual incorporates the values, norms, behaviors, and ideals of the profession into his/her own identity.[6] Development of a professional identity can be impeded by burnout, while reflection



PubMed results by year, resilience.

can attenuate burnout.[7] The CanMEDS framework names "resilience for sustainable practice" as a key component of professionalism.[8]

The development of a resilient identity can be cultivated through a variety of interventions.

Individuals/Small Teams

- Seek and cultivate relationships including peers and mentors, especially in small longitudinal communities;
- Build and practice mind-body and mindfulness skills through electives, CME, or independent study;
- Practice reflection with positive emotions including gratitude, journaling, writing thank you letters, sending spontaneous texts/emails of appreciation. Reflect with colleagues on a shared sense of purpose and meaning;
- Seek opportunities to tell and listen to stories, and seek authenticity and vulnerability; and
- Make space for an intentional pause in acutely stressful situations; imagine your best self and how that self would respond, strategize, and proceed, especially in moments of stress; and seek the support and advice of trusted colleagues.

Medical Education Programs

- Create formal pedagogic strategies to foster the process of PIF, with guided reflection and community as key components, as described by Wald and colleagues, including:
  - » Case-based role plays with "brief, emotionally confronting, and ethically challenging clinical scenarios, prebriefing and debriefs, with a focus on remaining present, in spite of the stressful situation, and cultivating self-awareness.[9]
  - » Mindful medical practice sessions, integrated into the required pre-clinical curriculums, each with didactic learning, contemplative practice, and narrative medicine.[9]
- Establish coaching and support programs in which students are matched with respected mentor physicians for longitudinal mentorship.[10]
- Provide opportunities for vertical mentoring in which senior students become role models and share wisdom and guidance with junior students.
- Consider the core principles of an educational community as described by Boyer—purposeful, open, just, disciplined, caring, and celebrative in the context of a community sharing a set of goals, values, and principles.[11]
- Consider where your medical education program has strengths, and what needs more intentional investment.

Organizations / Institutions

- Launch and sustain peer support programs, both proactive and reactive (e.g., Balint groups, mentoring programs, peer support lunches);
- Provide intentional space for group reflection, processing, and shared support regular intervals, and add more opportunities during times of intense challenge;
- Prioritize and fund communities of practice and learning communities;
- Give power to individuals and teams to solve problems, and support them with time and resources; and
- Create opportunities for storytelling and community support with an invitation to share authentically in a climate of safety (e.g., failure panels, Schwartz rounds).

Cautions and Considerations

The concept of fostering resilience has some areas of risk for leaders and individuals that need to be carefully considered, including:

- Recognize that encouraging and praising resilience can be fracturing if resilience is being encouraged by leaders from the top down without appropriate support. This approach risks the implication that if the individuals in the workforce had more resilience they would be able to overcome the challenges they face. Partnership, effort, and deep caring from leaders to address and remediate the

fractures that require resilience is critical.

- Consider the brand of resilience being encouraged. Does the definition allow for, and encourage, important human emotion in response to difficult experiences? Does it make space for vulnerability and authenticity?
- Appreciate diversity of identity and experience, and be aware of power and privilege. Consider the unique challenges that an individual may be facing whether it be personal or mental health issues, debt burden, and/or identity discrimination. Reflecting on individual resources, including personal strengths, degree of personal and/or community support, and past challenges overcome can help us learn about, and from, each other, and can be a source of inspiration for all.

Promoting Community

As the pace of work and focus on productivity has increased, physicians have become increasingly isolated—working through lunch, charting alone, spending less time communicating directly with patients, and having fewer moments for sharing cases and experiences with professional colleagues. Medical students are also at risk for isolation as they seek to learn the enormous volumes of information as efficiently as possible, and often elect to skip in-person class and utilize electronic resources and recorded lectures. Isolation has contributed greatly to how we have experienced the chronic stressors of modern medical school and practice. Effective interventions to promote community will need to simultaneously address the systems-level challenges impacting the profession.

We are facing acute stressors the likes of which most physicians have never experienced. The resilience of our health care workforce will continue to be tested, and we will need the support of our colleagues to withstand and ultimately recover as a profession. We must be intentional about caring for each other; making time to listen; sharing our experiences; helping our colleagues who are on the front lines; making use of peer support programs; and reminding each other of why we came to this profession—to serve, to care, to heal, and to ease the suffering of others.

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Chapter 8

Re-examining Exams: National Board of Medical Examiners' Efforts on Wellness (RENEW)

Miguel Paniagua, MD, Madeline DelVescovo, BA, and Liselotte N. Dyrbye, MD, MHPE

It has been established through peer-reviewed research and extensive anecdotal evidence that medical students endure a great deal of burnout, depression, stress, anxiety, and suicidal ideation. Burnout can be described as a condition of emotional exhaustion, depersonalization (cynicism), and feelings of diminished personal efficacy or accomplishment in the context of one's work environment.[1] The effects on student health and well-being are serious and carry implications that can impact students' entire careers, as well as their personal lives. Considering the high-stakes of this problem, and the responsibility owed to health care trainees and the people they will one day care for, the house of medicine must act.

Little research has been done on what role assessments, such as the United States Medical Licensing Exam (USMLE), play in impacting medical student wellness. Despite this lack of formal research, there is much anecdotal evidence supporting the unique pressures associated with the all-encompassing, consuming nature of preparing for such exams.[2] As a comprehensive licensure exam, Step 1 of the USMLE series requires extensive preparation, which can be inherently stressful for students. The stress involved with preparing for this exam may be exacerbated by the secondary uses of USMLE scores, such as cutoff thresholds for entering residency programs, particularly for highly-competitive specialties (e.g., dermatology, orthopedic surgery, ophthalmology) and programs across specialties. The secondary usage of the three-digit score, particularly for Step 1, may be adding to the stressors already being experienced by medical students.[2]

The secondary usage of Step 1 scores in residency selection is a complex issue that has led multiple stakeholders to reconsider what measures are used in this process. There has been a call for more broad-based competency-specific means to rank students in ways that are more congruent with future practice needs. The three-digit score has historically served as a means of providing a normative measure of cognitive medical knowledge that residency program directors utilize in the evaluation, initial screening, and ranking of candidates. However, if this measure were to disappear, arguably other less reliable measures of this domain

of competence could take its place. Some medical students are concerned that other residency selection measures could cause them to feel an even greater loss of agency in their residency placements, and lead to more inequalities in the system.

The National Board of Medical Examiners (NBME) recognizes the role high-stakes exams have in contributing to the stress and risk of burnout medical students face. NBME, in line with its mission of protecting the health of the public, convened the Re-Examining Exams: NBME Effort on Wellness (RENEW) research initiative.

In February 2018, NBME convened the inaugural meeting of a collaborative task force with members recruited on the basis of their work in this field of study and their positions as leaders of key stakeholder organizations. The RENEW Task Force members were chosen based on their regular interaction with students in undergraduate medical education, research work with sister organizations, and their expertise in the fields of wellness and burnout.

The RENEW research initiative aims to understand the role high-stakes exams have in impacting student wellness, particularly Step 1 of the USMLE series. RENEW also looks to develop and execute a research agenda that can contribute to the research surrounding wellness, burnout, and depression, and lead to actionable interventions or recommendations to promote student wellness and mitigate burnout.

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Updates on the progress of the RENEW studies can be found at www.nbme.org.
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Mood Disorders and Academic Performance

There is evidence to suggest that mood impedes cognitive processes needed for knowledge, skill acquisition, and application.[3] One study that focused on a small group of residents found that burnout negatively impacted performance on multiple-choice questions assessing clinical reasoning with corresponding brain activity changes tracked using functional magnetic resonance.[4]

An estimated 27.2 percent of medical students experience depression, a rate higher than that of similarly aged groups in the general population.[5] Additionally, in a study of 4,287 students across seven different medical schools, approximately 50 percent of medical students experienced burnout.[6] Within that study, being burned out increased the likelihood of suicidal ideation. High degrees of burnout have also been associated with lower medical knowledge, medical errors, unprofessional behavior, changes in career choice, and a number of other factors directly related to the student experience and the care of patients.[7-12]

Within testing, it is important to minimize construct-irrelevant variance, defined as the extraneous, uncontrolled variables that could impact assessment outcomes. Since mood impedes the cognitive processes necessary for learning, it is important to understand if the anxiety, depression, and burnout medical students are experiencing could be impacting their performance on high-stakes exam, which results in an untrue representation of their knowledge.

External Stressors

Students also experience stress related to their lives outside of medicine. One study revealed that negative life events, such as divorce, illness, or death, may increase the risk of depression and burnout. A greater number of negative personal life events correlated with a higher prevalence of burnout and depression symptoms. Taking medical students' outside lives into account matters in evaluating and addressing student mental health.[13]

The debt medical students incur for their education also must be addressed in tackling burnout. A 2011 study using data from the Internal Medicine In-Training Exam (IM-ITE) found that burnout was associated with higher debt. Debt has also been associated with low scores on the IM-ITE exam, as well as emotional exhaustion, low quality of life, and alcohol abuse/dependence in medical students.[7,14]

It is important to consider the unique challenges that face women in medicine, who will soon make up more than half of the physician workforce.[15] It is increasingly evident that there are multiple risk factors for the development of burnout which may differ for men and women. It is not yet clear if burnout is more prevalent in women, but more research is needed to elucidate the unique experiences women face, and the assessments used to identify those affected.[16]

Coping Strategies

There has been a great deal of research regarding the interventions and coping strategies that address medical student well-being. Exercise has been associated with less burnout and higher quality of life.[17] Another single institution study of 125 third-year medical students found that constructive coping skills, such as positive reframing and problem-solving exercises, were protective against depression. High social function also acted as a buffer against the effects of stress.[18]

Pass/fail grading systems have been shown to be an effective school-level intervention in promoting student wellness. A 2009 study examined the results of a change from letter grading to pass/fail and the relationship between the change and students' performance and well-being. Changing to pass/fail yielded an increase in well-being for students. There was no significant change in performance in courses or on USMLE and a variety of other assessment measures for the pass/fail group.[19] Another study investigating pass/fail grading found that students in a pass/fail system experienced less stress and better group cohesion than the graded cohort. There was no significant difference between the two groups with regard to Step 1 scores.[20]

The RENEW Initiative

During the first meeting of the RENEW Task Force, members received education on the USMLE program, the disabilities services' perspective on examinee test-taking anxiety, instruction on principles of assessment, and research on assessment. Task Force members were then asked to brainstorm research ideas from the perspective of individuals, institutions, and stakeholders. From this work, the following four research questions emerged:

1. What is the relationship between medical student well-being and examination performance?
2. How do self-care activities relate to stress and examination performance?
3. What contributes to stress among medical students, and what strategies do students use to mitigate stress?
4. What is the relationship between the perceptions of high stakes examinations (such as the USMLE exams), their purpose and the meaning students attach to these exams and the students' wellness?

A second meeting was convened in October 2018, to work on research design for each of the four questions, which then grew into studies and study groups. The RENEW Task Force further defined and designed four separate studies. The studies address distinct, but related, questions about high-stakes assessments and student wellness in the U.S. utilizing a mixture of qualitative and quantitative approaches.

As of fall 2019, all four studies are under way and are all in varying stages of data collection and analysis. Concurrent with the work of the RENEW project, the USMLE program announced changes in score reporting for Step 1 from a three-digit numeric score to reporting only a pass/fail outcome. A numeric score will continue to be reported for Step 2 Clinical Knowledge (CK) and Step 3. Step 2 Clinical Skills (CS) will continue to be reported as Pass/Fail. This policy will take effect no earlier than January 1, 2022.[21]

For the Benefit of All

There appears to be a weak relationship between students' quality of life and their performance on USMLE Step 1. Preparing for USMLE Step 1 can be an extremely stressful experience for some students, but not for others. The RENEW work continues and dissemination of findings from the four studies is forthcoming. The findings to date are preliminary, and once definitive inferences can be drawn from the four RENEW studies, we hope this work will lead to actionable interventions across the medical education continuum.

This novel collaboration model has been invested in addressing the concerns of the medical education community related to high-stakes assessment and the potential role exams play in trainee wellness. Through collaboration and continuing such important work, we can reach effective solutions that address all stakeholder concerns and promote physician well-being, benefitting patients and future providers alike.

Summary of the RENEW project prioritized research projects and preliminary findings (if available)	
Study 1	
Research Question	• What is the relationship between medical student well-being and performance on USMLE Step 1?
Data and Methods	• Weak relationships between quality of life measures and Step 1 scores • Data includes AAMC Y2Q Survey, and USMLE performance information
Preliminary Observations/Findings	• Quantitative analysis of a sample of second-year medical students from 2017 and 2018

Study 2	
Research Question	• To what extent do self-care activities and study behaviors influence the relationships between medical student well-being, stress, and students' USMLE Step 1 scores?
Data and Methods	• Web-based survey developed to collect data • Pilot study conducted in June 2019 with 1,352 medical students
Preliminary Observations/Findings	• 639 students responded; 47 percent response rate for pilot study • Pilot study findings will be used to improve survey • Full survey administration planned for June 2020
Study 3	
Research Question	• How do medical students experience and manage stress within the context of studying for Step 1, and receiving their scores?

Data and Methods	• Eight semi-structured focus groups with 34 second- and third-year U.S. medical students who took Step 1 and received their score
	  • What contributes to stress among medical students, and what strategies do students use to mitigate stress?
	  • How do students experience and manage the process of preparing for the USMLE Step 1, and receiving their scores?
	  • How does the experience of taking the exam and receiving their scores impact their sense of well-being and their self-concept of their place in medicine?
	  • Insight into the techniques and strategies that students use to mitigate stressors they may experience
	• Methods: Semi-structured focus groups with second- and third-year U.S. medical school students who have taken USMLE Step 1 and received their score

Preliminary Observations/Findings	• Participants appreciate the chance to share their experiences • Students from different schools and backgrounds may have different experiences
Study 4	
Research Question	• How do medical students experience and manage stress within the context of studying for Step 1, and receiving their scores?

Data and Methods	• Web-based survey including open-ended questions:
	  • In what ways did preparing for Step 1 affect your well-being?
	  • During the time you prepared for Step 1, what behaviors did you do, or not do, that you think decreased your well-being?
	  • In what ways did preparing for Step 1 affect your well-being?
	• Administered in June 2019 to a stratified (gender and region) random sample of 1,600 recent Step 1 examinees

Preliminary Observations/Findings	• 508 students responded; 32 percent response rate, data analysis under way

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Chapter 9

Professional Development: Professionalism and Resilience in the Learning Environment

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In medical education, professional development occurs within the context of a learning environment that encompasses the physical spaces, organizational culture, and interpersonal interactions. Learning environments that are inclusive, just, and respectful are paramount to the development of a physician workforce that is resilient, collaborative, and engaged; a workforce that will be best able to meet the health care needs of the public.

Within medical education there is a hidden curriculum that occurs within the context of the health care workplace and learning environment. This non-deliberate, yet very real, experiential learning has considerable impact on learners. The hidden curriculum is a powerful force in the development of professional identity as learners experience innumerable examples of the ways in which physicians think and react. Learners witness firsthand the behaviors physicians and other medical professionals model in myriad contexts.

Equally impactful are the many other experiences students encounter during medical school. Some of these directly involve students, such as the remarks made to students and the feedback provided to them about their performance. At other times, students are observant bystanders, keenly watching the interactions that occur in the environment around them. Students listen to, and process, what they see and hear. Each experience impacts their emerging professional identity, shapes their values, beliefs and attitudes, and tests their resilience.

The series of micro-case studies below are derived from experiences that illustrate some of the experiences learners may encounter.

Inadvertent Bias?

Example Case

A student on an orthopedic surgery rotation shared with her team members her desire to pursue a surgical career. Later in the day, one of the chief residents took her aside and said, "Don't go into surgery—just don't do it." When she inquired why, he elaborated, "…as a woman, it is just very hard to be a surgeon. The female orthopedic surgeons aren't necessarily supportive of other females…. Just because you have the technical skills, doesn't mean it is a good choice. Surgery is just so hard for women."

Case Review

To the learner, the message that was received was that regardless of her ability, her gender might impede her ability to become a successful surgeon. These comments, and their underlying views and beliefs, may adversely impact the learning environment. Negative learning environments can undermine otherwise well-intended efforts to improve education and patient care.[1] Gender bias affects both male and female students.[2] When supervising physicians have a differential view of the suitability of any student for a particular field, it can impact the rigor of experiences afforded to a learner, the relative time and attention a student receives from a supervising physician, and/or the opportunities made available to a learner.

On the receiving end, when this treatment is experienced by a student, it may negatively impact a student's sense of belonging to group or culture. In some instances, comments such as these may be met with indignation by learners, who may seek to disprove the allegation and redouble their focus on a surgical career, but with somewhat misplaced motivations. Alternatively, a learner may internalize and generalize this allegation, perceiving that the supervising physician was confiding some true information, and ultimately feel dissuaded from pursuing a chosen specialty.

Regardless of intent, comments such as these, and worse yet the beliefs that underlie them, can have negative effects on the learning environment and the learner. It is important to note that the lack of malintent does not fully mitigate the adverse effect of comments and beliefs such as these. As we seek to establish an environment conducive to optimal learning by everyone, these types of beliefs are latent threats to a just learning environment, and may have deleterious effects on attempts to diversify the workforce in all areas of medicine.[3]

As primary prevention, implicit bias tests, team training, and professional development activities may increase recognition of biases, and potentially reduce these behaviors.[4,5] Secondary prevention at the level of the learner should also be considered. Providing a format for learners to reflect on experiences such as these, to contextualize them, and to process their own reactions, may mitigate negative effects. Learners also need a safe mechanism by which to report and share these types of concerns so that educational interventions can be undertaken. As asserted in the Josiah Macy Jr. Foundation 2018 conference on learning environments in the health professions, "Exemplary learning environments—and the organizations of which they are part—are fully committed to diversity, equity, and inclusivity."[1]

Empathy and Societal Concern

Example Case

A third-year medical student met with the clerkship director to discuss some stresses that he felt while he was on the internal medicine clerkship. He had been participating in the care of a homeless patient who had cellulitis. On morning rounds, the student proposed that the patient stay one more day, as he still had pain and swelling in his foot. The senior resident felt that the patient was ready for discharge. The student reminded the resident that the patient did not have a home to go to and recover, and that the social worker had been unable to secure a respite bed. The senior resident replied, "We aren't responsible for solving social problems."

After this conversation, the student no longer felt comfortable sharing his opinions, stopped participating during rounds, and withdrew from his team.

The student was upset at the attitudes of the resident team members. In the student's view, they were not professional, as he felt that professionalism encompassed addressing the active societal and social issues that impacted patients in these situations, and that the patient's plan for discharge was not providing good care. The resident team was feeling the pressure of opening up hospital beds for patients awaiting admission from the emergency department, and felt they were addressing their professional duties.

Case Review

Students may struggle with the acculturation of medicine. The student withdrew because he felt his values of empathy and societal social concern were being challenged, while the residents on the team felt that their decision was the correct thing to do because of their responsibility to keep the hospital open and beds available.

Branch et al. describes how these types of critical incidents can have a major effect on student development.[6] The idealism that students arrive with can be severely tested when decisions are made for practical purposes, such as opening up a bed for another patient requiring admission instead of keeping a homeless patient another day.

Another difficult part of this exchange was the resident's comment that they were, "…not responsible for solving social problems." In the circumstance described, a discussion of why decisions are made, pointing out the good intentions of both approaches, will help the student stay engaged and help make the task of acculturation less daunting. Helping the student cope with disappointment may include a discussion on perspective and reflection. Perspective includes why decisions were made along with their good and bad intentions, focusing on how this is a learning opportunity, and how at times a negative role model can be educational. Reflection on the event can help the student cope with the cynicism and remind them that within medicine many opinions and approaches will be encountered.

Social Justice

Example Case

A student was assigned to an outpatient rotation in the executive health practice. Initially she was excited to receive the assignment, since she had heard that the clinic was well run and that patients, "got what they needed." After the first few days, she realized that patients were moved to the front of the queue for tests and specialty consultations. Patient phone calls were returned promptly by a dedicated triage nurse. Affording medications was no issue. She couldn't help but contrast this with what she had seen during her global health elective, or during her volunteer time at the free clinic. She tried to bring this up to her attending but he seemed oblivious, and dismissed her concerns. By the end of the second week she was frustrated, withdrawn, and disillusioned. She asked to be reassigned to a different clinic for the remainder of the rotation.

Case Review

The bulk of time spent educating students is devoted to teaching about diseases and treatments rather than about the systems in which health care occurs. Learners often have strong egalitarian views and an increasing global perspective on health care. They have a low tolerance for perceived inequities. However, incorporating students in clinical environments that encompass a spectrum of practice models will better prepare them to understand and navigate the health care systems in which they will ultimately work. This particular type of rotation may increase a student's awareness of health care disparities and the multifactorial causes.[7] It may inspire them to work in service or advocacy to diminish inequities in healthcare.

This type of clinical experience may also provide an opportunity for a student to explore the unique vulnerabilities in the care of a panel of VIP patients, such as physician patients, philanthropists, and politicians. These patients, or their advocates, may exert different pressures and expectations, such as specific treatment, expedited triage, or expedited discharge, and special exceptions. These pressures may lead to over-testing, over-treating, circumventing, or short-cutting usual processes—steps that can bring consequential risks to quality care.[8,9]

An important overarching theme in this scenario is the fact that learners will inevitably be confronted with circumstances that cause distress because of discordance with their personal beliefs. This might occur related to a health care environment or culture, or when caring for patients who have beliefs that are very different from their own. Such situations will challenge learners to recognize and explore the source of the dissonance, to examine their values and their reactions, and to ultimately reach some measure of reconciliation. Failure to do so may result in disengagement, thereby hindering their professional development.

Listening to, acknowledging and exploring a student's concerns can validate their reaction and encourage their self-reflection. Students may benefit from peer support and from faculty-facilitated case-based discussions, such as reflective writing, meetings, and discussions with faculty mentors or coaches.

Patient Conduct

Example Case

A Latinx third-year medical student was seeing a patient with her attending during an outpatient clinic rotation. After the student completed her presentation, while the student and attending were both still in the exam room, the patient made comments to the attending about how he did not serve in the military in two wars to, "allow the country to be taken over by Mexicans." The attending redirected the conversation, and the clinic appointment concluded.

Case Review

Unfortunately, experiences such as this are all too common among medical students and residents. As trainees embark on their professional journey, they are faced with taking care of everyone, regardless of background. Sometimes, patients may be overtly hostile, or not want a trainee involved in their care. In a study by Frank et al., 25 percent of medical students reported experiencing harassment from patients, and 43 percent experienced belittlement.[10] The third year of medical school is a difficult transition, from the early learner-focused preclinical part of medical school to the patient-focused phase of the later years of medical school.

In this case, the attending redirected the conversation away from the patient's rant, which was appropriate. A helpful next step would be to debrief with the student after the encounter, about their feelings and their reaction to this experience. This gives an opportunity for the student and the supervising physician to work together and think about what responses are best for the student. It also offers the student the chance to think about what the approach will be when faced with this type of circumstance when seeing a patient on their own. In addition it provides an opportunity to openly discuss a difficult component of the role of a physician: that we don't choose our patients, and that sometimes we don't feel good about our patient encounters. If the issue is not reflected upon with the student, it can send the message that the attending is either in agreement with the patient, or does not recognize the potential for harm from the patient's comments to the student.

Whether confronting the patient about their comments is the best approach is not clear cut. There is a potential downside as some students will feel stress with the patient being confronted when they feel it is being done because of their role in the patient interaction. Some patients who make offensive comments to students have mental illness or cognitive impairment, and confrontation may create even more potential harm.

Shame and Guilt

Example Case

A medical student was rounding with the team on the pulmonary consult service when he was asked to interpret a chest X-ray. After he quite obviously missed a key finding, the attending pointed to the X-ray and asked the student if he knew what a granuloma was. When he answered that it was something seen on biopsies in Crohn's patients, the attending chuckled, and the residents followed suit. The attending said that she certainly hoped that the student could tell this was not the bowel they were looking at. Some time later, the student confided in his friends, "I felt stupid and totally exposed in front of everyone. It was like I was paralyzed. Now I just shut down in rounds—I don't care if I learn anything. I just don't want to be humiliated again."

Case Review

The student's reaction is characteristic of the shame that can be felt by learners. As described by Bynum et al., shame is a self-conscious emotion that may arise in response to a negative event such as a perceived transgression, or failure to reach an expectation. Shame can be associated with a generalizing negative self-perception, with feelings of being deficient, unworthy, or inadequate. Bynum makes a critical distinction between guilt, in which the transgression is blamed on an action or behavior, and shame which is associated with negative views about one's entire self.[11] Shame can lead to concerns about how shortcomings will be perceived, and exaggerated fears such as not being able to continue in training. Public exposure and judgment are often central to shame, which has important implications for the learning environment. Fear can be a strong impediment to learning. The negative effects of a shame reaction may include social isolation, disengagement from learning, apathy and a "don't give a darn attitude."[11] Other maladaptive outcomes may include blaming others, defensiveness, anger, and impaired empathy. One might think that a shame reaction would enhance learning by the intensity of the reaction, as in, "something I'll never forget," or even trigger resilience and a "try harder" attitude. However, the negative implications of shame experiences are the most poignant. Early learners and those in transition seem to be particularly vulnerable to this emotional reaction.

The recognition of the adverse consequences of shame as an intensely negative emotional reaction has important considerations for the learning environment and medical educators. Teachers should be mindful of creating an environment of psychological safety and avoiding humor directed at, or at the expense of, a learner. Bystanders can also play an important role,[3] as they may become allies by asking clarifying questions, deflecting attention from the person who was targeted, and demonstrating support for the person. The bystanders (in this case the residents) can avoid following suit with laughter, and thus avoid "piling on" to a hurtful circumstance. If the residents feel unable to meaningfully intervene at the time, then following up with the student later, asking them how they are doing or feeling, can help facilitate a more constructive emotional response.

Mixed Messages and Student Burnout/Resilience

Example Case

A medical student was nearing the end of her second year, studying for her last block exam, and for the USMLE Step 1 exam. She had done a good job of keeping up, but now feared that she was not going to make it on the Step 1 exam. She feared that her dream of becoming an orthopedic surgeon would be lost if she couldn't get the score she wanted and needed. Fearing that everything she had worked for would be lost, she started studying for longer hours, sleeping as little as possible, skipping classes, and stopped exercising and extracurricular activities, just to gain some time. She began to fall behind on her study plan and started to worry that she wasn't remembering what she studied. The residents she knew told her the game would be over if she didn't get the score she needed. She met with the college academic councilor who emphasized the need to set reasonable goals and attend to self-care, but her classmates told her to "push through."

Case Review

Students today face an inordinate amount of pressure to perform well on the USMLE Step 1 exam, as these scores have implications for career opportunity, residency choice, and sometimes fellowship accessibility. Students create elaborate study plans, purchase expensive study aids, and begin studying for the exam as early as the first year of medical school. Regardless of the amplified importance of this exam, and the steps under way to mitigate its negative impact on students, the fact is that medical students are beholden to performance and perfection. While we speak to the importance of balance, well-being, and resilience, seldom are these traits explicitly remarked upon in letters of recommendation. Students and residents are masters of delayed gratification, and they stretch themselves, like the proverbial rubber band, to a point of maximal tension without snapping in two. The enemy of good is better…and better seems to have no upper limit. Students seek to perform, and out-perform, themselves and one another during the preclinical years and on clinical clerkships. They engage in research projects, labor on publications, seek leadership roles, and travel to away rotations, all in preparation for the next step in career advancement.

There is no one-size-fits-all solution to the discordant messages that we give students related to their performance versus their wellness. Efforts to mitigate the negative effects of the Step 1 exam are welcome. In addition, other efforts such as competency-based medical education may help ratchet down the achievement competition. A curriculum focused on all competency domains, including personal and professional development, may bring credence to the well-rounded physician and positive professional identity we claim to espouse. As medical educators we can serve as positive role models speaking openly about the ways that we attend to our own wellness, rather than feeling a sense of guilt when we discuss our own downtime and self-care. We can ask students directly about what they enjoy, and

provide as much positive endorsement of these activities as we do of their research, presentations, and awards. We can be mindful of expectations of learners, encouraging them not to follow in our footsteps but to create their own career path that maintains personal wellness as a requisite underpinning to providing the best care for all their future patients.

Congruent Values

Health care professionals, including those who as students are emerging professionals, want our work to be meaningful, impactful, and congruent with our values. The health care environment is our workplace and our learning environment. It is imperative for all of us to strive for an inclusive, respectful and collaborative environment. Students in particular are vulnerable and sensitive to perceived incongruities between what is taught and what they see and experience. They are developing their professional identities, applying their values, and making sense of many new experiences. As faculty and supervising physicians we can provide structure, support, and context for what they are observing and learning. We can identify and act to correct negative environmental and cultural factors. Failure to do so may result in learners, and ultimately physicians, who are disenfranchised, cynical, burned out and disengaged.

We must maintain our vigilant focus on optimizing our work environments and supporting the physicians and learners who work within them, in order to realize our collective goal of providing the best care for patients, communities, and populations.

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Chapter 10

Well-Being Definition and Measures in Medical Education

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Research on physician and trainee well-being has focused on measuring the presence of burnout, symptoms of depression, suicidal thoughts, stress, and sleeplessness. The World Health Organization (WHO) definition of health is that it "is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."[1] Although we know that well-being is more than the absence of disease, research into the health of physicians, residents, and medical students has focused on the absence of the states mentioned above, and not the presence of well-being.

One measure often used to assess student well-being is the Medical Student Well-Being Index,[2] which contains seven questions that assess sleepiness, stress, symptoms of depression, burnout in the domains of depersonalization and emotional exhaustion, and physical and mental quality of life. The seven questions are:

1. Do you feel burned out from medical school?
2. Do you worry that medical school is hardening you emotionally?
3. During the past month, have you often been bothered by feeling down, depressed, or hopeless?
4. During the past month, have you felt that all the things you had to do were piling up so high that you could not overcome them?
5. In the past month, have you fallen asleep while driving or stopped in traffic?
6. During the past month, have you been bothered by emotional problems (such as feeling anxious, depressed, or irritable)?
7. During the past month, has your physical health interfered with your ability to do your daily work at home and/or away from home?[2]

A low survey score doesn't mean that a respondent has well-being, only that they currently do not have symptoms of these conditions.

One factor that impacts the assessment of well-being is the lack of agreement on what well-being is. Definitions of well-being are typically focused on either hedonic or eudaemonic components of well-being. Hedonic well-being refers to having happiness and enjoyment in life, or pleasure in the moment. In contrast, eudaemonic well-being is defined by the experience of meaning, such as the value

of one's contribution to the greater good, or having a sense of purpose. Some definitions of well-being include both of these perspectives, and some are dominated by one definition or the other.

There is no agreed upon definition of well-being, and subsequently there is no agreement about what the best measure(s) of well-being might be. A study from 2016 found that there were more than 99 different measures for the self-assessment of well-being.[3] The significant number and likely variation between instruments means that if well-being measures are undertaken, results with one measure may not be generalizable to other measures.

To improve the study of physician wellness and approaches to reducing physician burnout, a sensible recommendation is to use valid, reliable, common metrics.[4] Without a uniform definition of well-being, it is not surprising that constructs with clear definitions and valid reliable metrics, such as the Oldenburg Burn-Out Inventory which is assessed on the Association of American Medical Colleges' (AAMC) Year Two Questionnaire and Graduation Questionnaire (GQ), may not indicate the presence of well-being, but rather the absence of the other states.

Positive Psychology Definition of Well-Being

One definition of well-being in medicine and medical education is the definition from positive psychology. Positive psychology is the study of human strength, resilience, and optimal human functioning,[5] and the factors that enable human beings and communities to flourish. This is in contrast to a typical focus on the diagnosis and treatment of disease or disability.

According to positive psychology there are five components that enable well-being, or flourishing, to occur: positive emotion, engagement, relationships, meaning, and accomplishment (hence PERMA™). The first three, positive emotion (P), engagement (E), and relationships (R), can be seen as hedonic components, and meaning (M), and achievement (A), can be seen as eudaemonic components.[6]

In health care, some have suggested that the PERMA™ model may also be useful as a structure for institutional leadership and culture change to assist organizations and individuals to reach their full potential.[7]

At the University of Washington (UW) the positive psychology PERMA™ model was shared with medical students during orientation while I was the Associate Dean of Student Affairs there from 2013 to 2018. After introducing the model and its components, groups of first year students ranging from 20 to 100 were asked to reflect on what areas of their well-being they anticipated might be challenged most during medical school. The two concerns that arose consistently in nearly every group were maintaining positive emotions, and positive relationships, both components of hedonic well-being. It is not surprising that entering medical students, without even discussing hedonic and eudaemonic definitions of well-being, had the expectation that the process of becoming a physician would lead them to have

experiences of meaning, accomplishment, and engagement, but might challenge their experiences of positive emotion and positive relationships.

Experiencing positive emotions may be particularly important to future well-being. The experiences of positive emotions allow for the development of optimism, resilience, and social connections, and in turn may endure as internal resources which promote future psychological and physical health.[8-10] This concept is the "broaden-and-build" theory of Dr. Barbara Fredrickson. "Positive emotions not only signal hedonic well-being in the moment, but stimulate processes that beget more eudaemonic well-being."[8]

There are various techniques and practices that have been developed to strengthen the different facets of well-being in the PERMA™ model. Anticipating that positive emotions and relationship components would be perceived by entering students as being challenged during medical school, each group of new students were led through two exercises to strengthen skills in each area.

A tool previously used with health care professionals[11] and others to help maintain positive emotions, including gratitude, is the "Three Good Things in Life" exercise. This activity involves reflecting each day on three good things experienced that day, writing them down, recording the individual's role in each "good thing," and the emotion(s) experienced. For example, "I enjoyed the sunrise from my kitchen window. My role was to stop and pay attention. I noticed both a sense of awe and an appreciation of the beauty in my day." Practicing "Three Good Things in Life" on a daily basis for two weeks has been shown to improve positivity, with a benefit that may persist for as long as six months.[5,12] It may be an efficient well-being practice, and thus particularly useful to busy medical students.

Healthy Relationships

To maintain healthy relationships there is evidence that the ratio of positive interactions to negative interactions needs to be approximately three to one, or even somewhat higher.[13] One activity to help with increasing the number of positive interactions is to learn and practice skills, such as intentionally having what is described as an "active and constructive response" to another person's positive experience.[14] An active constructive response to a positive experience may be as important, or more important, than having the same kind of response to someone's negative experience.

An active constructive response involves using both body language and verbal responses by the listener, to encourage the speaker to amplify and re-experience the positive event. For example, saying, "tell me more about what happened," "you must have been so excited," and nodding one's head and/or leaning forward are all active and constructive responses.

During orientation at UW, medical students were asked to turn to a nearby classmate and practice an active constructive response to the news that their classmate has

gotten into medical school, or another recent positive experience of their choosing. For some students this is a foreign way of responding and feels contrived, however, some students volunteered that they experienced positive emotions from responding in this way by attending intentionally to their classmate's positive experience.

Engagement

Engagement includes being fully present and immersed in the present moment. It can also refer to being in a "flow" state, the holistic sensation that people feel when they act with total involvement.[15] Engagement can be aligned with mindfulness and meditation. One tool is to create a mindfulness ritual for the start of each patient encounter, or oral case presentation, that allows the student to be more intentionally present. For example, students can use the moment of stepping through a doorway into an exam or hospital room as an opportunity to step into being in the moment with the patient. As they walk into the room, they can visualize setting aside other things beyond the current encounter, and moving their thoughts away from other worries or concerns.

Meaning, Achievement, and Accomplishment

At the time of starting medical school, students at UW perceived that their training and future career as a physician would likely have many opportunities for meaning-making and achievement.

The accomplishment may be something small, such as the first anatomy exam, or the first patient interview. Again, to have a sense of achievement and accomplishment may require only to be mindful of all that is happening in one's life, and all the opportunities to be aware of achievement and meaning, both large and small.

At the end of the UW orientation presentation, medical students were encouraged to take stock of what tools they already use, and what skills they would like to develop using the PERMA™ model as a framework for both personal reflection and organization. Utilizing PERMA™ as scaffolding may provide individuals, and medical schools, with a framework for describing, organizing, and managing their well-being efforts.

One criticism of the PERMA™ model includes the observation that it refers entirely to well-being components all located "above the neck." In 2014, Dr. Emiliya Zhivotovskaya, from the Flourishing Center, recommended that "V" for Vitality be added to the PERMA™ model by so that it is now referred to by some as PERMA-V, with V standing for vitality, which refers to physical well-being, including exercise, diet, and sleep.

A pattern of regular exercise, which complies with Centers for Disease Control guidelines, is associated with a lower risk of burnout in medical students,[16] and there are many other health benefits of exercise, sleep, and a healthy diet.

Less Burnout and Symptoms of Depression at Entry to Medical School

Entering medical students have less burnout and fewer depression symptoms when they begin medical school than age-matched college graduates.[17] The reasons for this are unclear but the burnout and symptoms of depression they may experience develop, or re-occur, during medical school.

One factor that may impact improved well-being at matriculation as compared to non-medical student peers is socioeconomic status. Data from the AAMC demonstrates that in the 30-year span from 1988–2017, matriculants to medical school are more likely to be members of the top two household income quintiles than not, averaging 73 percent to 79 percent.These two quintiles are disproportionately represented in medical school first-year matriculants over first-year matriculants in the four-year undergraduate experience. [18,19] In addition, 31 percent of medical school matriculants have educational debt that averages about $25,000. The majority of medical students have no prior debt when they begin their medical school education, and those with debt have a fairly modest amount.

Well-Being During Medical School

Although students start medical school with less depression and burnout than their non-medical student peers, by the time they graduate from medical school their rates of burnout and symptoms of depression are similar to residents and attending physicians.[20]

Factors that impact burnout in physicians have been divided into those related to the health care system or organization, and those related to individual factors. It has been suggested that about 80 percent of burnout is due to systems-based factors, and 20 percent is due to individual factors.[21]

Examples of systemic or organizational factors include inadequate staffing to get patients roomed or discharged in a timely fashion; burdensome documentation requirements in the electronic medical record; and/or difficulties with referring patients for consultation. Individual factors refer to personality qualities like perfectionism. The hypothesis is that individual factors can be remedied by skill development, such as improving time management skills or creating better work and non-work boundaries, while systems factors require intervention at the health care system, hospital, or clinic level.

Burnout in medical students in the clinical practice space may be significantly impacted by organizational factors, both in their impact on the students themselves, and also on the physicians with whom the students work. There may also be systems factors that are unique to medical school. A recent qualitative study of medical students attending Florida's medical schools found that there were some system-level concerns not previously noted, including medical school administrative failures, concerns about lack of assistance with career planning, and assessment-related performance pressure.[22]

Diversity

One possible systems factor that may impact student well-being is that there are differences between the diversity of the faculty and the diversity of the students. Based on AAMC data, including 2018 Medical School Faculty Data and the GQ results from 2019, the diversity of the faculty to whom medical students are exposed is less diverse than the medical students themselves.[23]

On average, the medical school faculty are almost half as likely to be black as the medical students they teach and precept; 3.6 percent of full-time faculty identify as African-American or Black, while 6.7 percent of students who answered the 2019 GQ identify as African-American or Black.[23] Only 3.2 percent of faculty identify as Hispanic, with another 2.3 percent identifying as multi-racial, including Hispanic, for a total of 5.5 percent identifying as Hispanic.[23] In contrast, 8.6 percent of students identify as Hispanic, Latinx, or Spanish. As for gender, 41.6 percent of full-time medical school faculty are female,[23] as compared to 49 percent of medical student respondents to the 2019 GQ.

A less diverse environment of educators than learners may have several points of impact upon student well-being. If educators evaluate students and there is any bias in the educator toward students who are like the educator, then students who are non-white and/or female, or have other non-majority differences, may experience more bias in the teaching and evaluation process than those who are white and/or male.

A less diverse environment of educators than learners may also contribute to the development of the impostor syndrome,[24] in which students perceive that they do not have the skills or abilities to be successful in the environment, in part because when they look around they see very few individuals who look like them.

Mistreatment in the Learning Environment

The GQ, a survey administered annually to each school's graduating seniors, asks about various kinds of mistreatment experienced in the learning environment during medical school. The forms of mistreatment included are based on gender, race, sexual orientation, as well as other unspecified factors. The GQ results continue to demonstrate that about 40 percent of respondents have personally experienced one or more episodes of mistreatment during medical school.[23]

Mistreatment category "During medical school how frequently have you…"[23]		
With the instruction: "Include in your response any behaviors performed by faculty, nurses, residents/interns, other institution employees or staff, and other students."	**Ever (n)**	**More than once (n)**
Been physically harmed?	281	47
Been required to perform personal services?	781	234
Been subjected to unwanted sexual advances?	750	312
Been asked to exchange sexual favors for grades or other rewards?	63	31
Been denied opportunities for training or award based on gender?	983	515
Been subjected to offensive sexist remarks/names?	2480	1404
Received lower grades solely because of gender rather than performance?	1108	406
Been denied opportunities for training or rewards based on race or ethnicity?	562	328
Been subjected to racially or ethnically offensive remarks/names?	1327	687
Received lower evaluations or grades solely because of race or ethnicity rather than performance?	531	265
Been denied opportunities for training or rewards based on sexual orientation?	109	62
Been subjected to offensive remarks/names related to sexual orientation?	312	172
Received lower evaluations or grades solely because of sexual orientation rather than performance?	94	47
Been subjected to negative or offensive behavior(s) based on your personal beliefs or personal characteristics other than your gender, race/ethnicity, or sexual orientation?	1185	624
Been threatened with physical harm?	219	62

Rates of the various types of mistreatment noted above have stayed the same or increased slightly, despite institutions taking varied actions to reduce the rates of mistreatment. The reasons for this are unclear. Mistreatment in the learning environment is another systemic factor which may impact medical student well-being.

One study found that demoralization in the third year of medical school is most often due to working with unhappy residents (2.7/4 on five point Likert scale), followed by working with unhappy attendings (2.3/4). These were ranked more highly than other types of harassment and discrimination, which ranged from 0.2 to 1.6, out of a possible four.[25]

The authors suggested that the primary problem in the learning environment is not mistreatment such as harassment or discrimination. In evaluating this contention, it is important to remember that experiences of harassment and discrimination may be exceedingly impactful to those who experience them, even if the experiences are not as common as being exposed to unhappy residents or unhappy attending physicians.

We can all agree students should not experience harassment and discrimination in the learning environment, and that their exposure to unhappy residents and attendings should be minimized. Addressing both the individual and systemic factors, including efforts to mitigate unconscious and conscious bias, is an urgent need. Students need to feel welcomed and included, so that they have a strong sense of belonging wherever they are in their path toward becoming a physician. To that end, there is an urgent need to take on the work of becoming aware of unconscious and conscious bias, and making intentional efforts to mitigate those biases. In addition, addressing systemic factors which lead to bias are likely even more important, such as ensuring increased diversity of the medical school faculty and staff.

The Impact of Debt Accumulation on Student Well-Being

Not surprisingly, debt may be associated with an increased risk of stress and depression. One longitudinal study of 8,400 young adult respondents in the National Longitudinal Study of Adolescent Health who were between the ages of 24 years and 32 years found that after controlling for socioeconomic status, absolute debt levels were associated with increased risk of stress and depression symptoms.[26] The study concluded that high financial debt relative to available assets is associated with higher perceived stress and depression, worse self-reported general health, and higher diastolic blood pressure. These associations remain significant when controlling for prior socioeconomic status, psychological and physical health, and other demographic factors. The results suggest that debt is an important socioeconomic determinant of health that should be explored further in social epidemiology research.

At the end of medical school, 71 percent of graduating medical students have debt, that averages $200,000, and only 25 percent have no debt at all.[21]

In response to the question, "What is the greatest stressor in medical school?" 147 responses out of 864 listed financial concerns; however, the most common responses were concerning medical school workload (333), and performance pressure (306).[23] Ninety-three listed career planning and concerns about the future. A study in Florida medical students noted that increased debt is associated with increased risk of alcohol use disorder.[27] In addition, one study of internal medicine residents found that greater educational debt is associated with the presence of at least one symptom of burnout for those with more than $200,000 in debt as compared to those with no debt (61.5 percent versus 43.7 percent; odds ratio, 1.72 [99 percent CI, 1.49-1.99]; $P < .001$).[28]

The Stigma of Seeking Help

Medical students who are experiencing burnout, depression, or other mental health diagnoses may not seek professional assistance. In one survey, medical student respondents were less likely to seek professional help for a serious emotional

problem (26.9 percent) than age-matched individuals (38.8 percent) not in medical school. In addition, only one-third of medical student respondents with burnout (33.9 percent) sought help for an emotional or mental health problem in the preceding 12 months.[29]

In another survey of 5,053 matriculating medical students in Florida, 70.1 percent of survey respondents felt they would benefit from mental health care (79.3 percent of women vs. 59.6 percent of men; $\chi 2 = 41.94$, $P < .001$), although only 39.8 percent accessed help.[27] Further, almost two-thirds of respondents reported decreased psychological health since beginning medical school, with women noting greater reductions ($\chi 2 = 12.39$, $P = .05$) and higher levels of stress ($\chi 2 = 16.30$, $P = .003$).[26] More than 10 percent of students (n = 102) had thoughts of committing suicide during medical school.[27] In addition, medical student respondents with burnout were more likely than those without burnout to agree with statements that indicate perceived stigma.

One recent cross-sectional survey of more than 150,000 college students found an association between perceived public stigma and greater odds of thoughts of suicide, planning suicide, and suicide attempts. Odds of having attempted suicide were greater among both Asian international and Black college students.[30] It is not clear how stigma might impact under-represented in medicine medical students' help-seeking behavior.

Stigma reduction methods have been investigated with undergraduate college students using a survey with 373 respondents. The results demonstrated those with self-reported mental illness found more merit using advertising messages that indicate solidarity with students needing mental health support rather than messages normalizing mental health challenges. A preferred message to reduce stigma is, "I stand with you, and support your need to have access to mental health services," rather than "I am just like you, we all struggle with mental health challenges."[31] Educating physicians and others about implicit stigma recognition and management has been shown in at least one small study to be effective.[32] It is not clear whether similar kinds of messages are helpful to medical students, particularly those who are struggling with mental health issues.

Medical students' concerns about getting licensed and credentialed as physicians likely increases the stigma with seeking assistance for mental health issues, in the same way it does for licensed physicians.[33] There needs to be more transparency about this process, and more advocacy for changing the licensing and credentialing questions so that they are compliant with the Americans with Disabilities Act (ADA) and only inquire about current impairment, not prior diagnoses or treatment.[34] Despite this concern on the part of graduating medical students, in my experience as a student affairs dean, graduates have never failed to get licensed or credentialed despite having a treated mental health disorder, as long as it did not impair their ability to practice in the present.

Well-Being as a Competency

Given that we know that burnout, symptoms of depression, suicidal thoughts, and thoughts of dropping out occur with concerning regularity in medical students, potentially helping students develop some skills for self-management of well-being may be beneficial to them, and potentially protective, as they move on to residency training and eventually to practice.

A survey of 30 medical and osteopathic schools enrolled in the American Medical Association Change Medical Education Consortium found that most of the wellness offerings at the respondent schools are optional, with only 13 percent having required attendance at all activities.[35]

In the areas of emotional or spiritual wellness activities, the three most common required activities were stress management or stress reduction activities, required at 22 percent of schools; mindfulness meditation training, required at 15 percent of schools; and peer mentoring, required at 15 percent of schools. When required attendance was combined with optional attendance, these activities were offered by 86 percent, 93 percent, and 85 percent, respectively, of schools responding to the survey.[35]

This is a limited sample of medical schools, so it is not clear if the availability of required and optional wellness activities and training are generalizable to other medical schools. If anything, it seems likely that the responding schools might have a wider variety and/or more time dedicated to both required and optional wellness activities as compared to medical schools not involved in the consortium and survey.

In this same survey, about 25 percent (6/27) of medical schools that responded had a well-being or wellness competency. Two of the 27 schools utilize the Physician Competency Reference Set from the AAMC, and two of the schools are osteopathic and utilize the American Association of Colleges of Osteopathic Medicine's professionalism and personal self-care competency. The remaining two schools developed their own wellness or well-being competencies.[35]

In the Physician Competency Reference Set 2013 from AAMC there are two competencies in the area of "personal and professional development" that are most closely aligned with well-being:

8.1 Develop the ability to use self-awareness of knowledge, skills, and emotional limitations to engage in appropriate help-seeking behaviors.

8.2 Demonstrate healthy coping mechanisms to respond to stress.[36]

These two competencies require having awareness of challenges and responding appropriately once they have arisen with help-seeking behavior and coping skills; a tertiary response. Over time, perhaps there will be evidence about what prevents burnout and symptoms of depression from ever occurring, and a competency can be developed that assesses whether students can master the behaviors of prevention.

It is unclear how these competencies are operationally defined by schools. Some common help-seeking behaviors include seeking mental health counseling or visiting a physician, and are protected by confidentiality and privacy concerns, including laws such as the Health Insurance Portability and Accountability Act. It is interesting to think about how these competencies might be assessed both accurately and appropriately with adequate privacy protection in place for students. The most appropriate assessment may be self-assessment to protect students' privacy and confidentiality.

Assessing Well-Being

Medical education must move toward assessing not just the presence of symptoms of depression or burnout in students, but also the presence of well-being. To do so, a shared definition of well-being is required, as is agreement on the best measures for well-being. Positive psychology offers a useful framework for well-being, with PERMA and PERMA-V, and may also provide an approach to considering a useful set of tools for assessing well-being in students, residents, and physicians.

One concern with having a dichotomy about the causes of burnout—systems issues versus individual factors—is the risk that the problem is now couched as mostly a systems issue, and this may create a situation in which physicians, and by extension, medical students, see themselves as victims of the system, rather than as solvers of the problems. Having a dichotomous either/or framing can result in a perverse response given that physicians have much of the power in the health care system, as they are highly compensated, highly trained, and often in charge of teams, clinics, service lines, and hospitals.

It is more productive, and more accurate, to see the problem as both/and rather than either/or. After years of research there is not a simple single solution to physician burnout, or the problem would have been solved by now. The problem is multi-factorial and includes a multitude of systems issues, and there may be national, regional, local, hyper-local, and individual factors, which may vary by race, gender, specialty, and life experiences including adverse childhood events.

Medical students need to be imbedded in a positive learning environment that includes them. The physicians training them may be biased, burnt out, depressed, and/or cynical. The faculty and residents may not be attentive to welcoming students to the learning environment and this needs to change.

Medical schools should ensure that students have access to well-being skill training and not just wellness activities. We must educate students and faculty alike that asking for help is a positive step in the right direction. We must remove the fear of stigma and bias, and create an atmosphere of well-being for students, residents, and faculty alike.

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Chapter 11

Personal Strategies to Beat Burnout: The 20 Percent You Can Control

Christina M. Surawicz, MD

> Burnout is primarily a system-level problem driven by excess job demand and inadequate resources and support, not an individual problem triggered by personal limitations.[1]

The term "burnout" was coined by psychologist Herbert Freudenberger in the 1970s, defined as a "state of mental exhaustion caused by one's professional life."[2] There are three components: emotional exhaustion, when one feels over extended or overworked, depersonalization, when one becomes unfeeling in response to patients and peers, treating them like objects, rather than as humans, and a decreased sense of personal accomplishment, and success. Burnout is usually measured using the 22 item Maslach Burnout Inventory (MBI) developed by Dr. Christina Maslach.[3]

Dr. Tait Shanafelt and colleagues performed one of the earliest studies of burnout in physicians 20 years ago. Using the MBI to measure burnout he surveyed his fellow house officers (interns and residents) when he was a third-year resident in internal medicine at the University of Washington.[4] His study, published in 2003, was the first to evaluate the relationship between physician burnout and self-reported measures of patient care. He found that more than 75 percent of residents met the criteria for burnout, and were two times to three times more likely to report suboptimal patient care practices.

Epidemiology

Burnout has become an epidemic, and affects health care providers at all levels, from medical students throughout training and into practice. Another important early study by Shanafelt and colleagues was a collaboration with the American College of Surgeons. A 2008 survey completed by 7,905 surgeons found that 45 percent of surgeons exhibited one or more symptoms of burnout.[5] Burnout is also increasing, when measured. There was an almost 10 percent increase in burnout from 2011 to 2014, from 45.5 percent to 54.4 percent of physicians who reported one or more symptoms of burnout.[6]

Contributing Factors

Most of the factors contributing to burnout are related to systems, rather than individual factors. Two of the biggest organizational problems are the electronic health record (EHR) and increased time doing patient-related tasks.

In the previously mentioned study of surgeons, the risk of burnout was greater with longer hours at work, and more nights on call.[7] In addition when there was conflict between obligations at home and obligations at work that were resolved in favor of work, the rate of burnout was higher, 37 percent compared to 17 percent.[8] Women and younger physicians appear to be at increased risk in some studies while in others, mid-career seemed to be most challenging.[9]

The American Medical Association commissioned a report on practitioner satisfaction by the Rand Foundation, in 2013. They were interested in the changes related to health care reform, including consolidation of independent physician practices and sustainability of physician practice models. They evaluated 30 medical practices in six states.[10] The most salient findings affecting practitioner satisfaction were lack of autonomy and control; quantity and pace of work; not having support staff and allied health professionals; and the electronic health record (EHR). They describe the EHR as a "unique and vexing challenge to physician professional satisfaction."[10]

Physicians in one hospital system reported that they were spending 24 percent of working hours doing administrative tasks.[11] More time doing such work correlated with lower levels of career satisfaction and higher levels of burnout. The most burdensome tasks were prior authorizations, clinical documentation, and medication reconciliation.[11] A large national study also showed low physician satisfaction with the EHR and computerized physician order entry (CPOE).[12]

In 2013, the American College of Gastroenterology developed a wellness initiative and a member survey, a first-ever survey of gastroenterologists.[13] The 60-item survey included burnout measures. Overall, 50 percent of respondents had at least one measure of burnout, most commonly emotional exhaustion, especially in younger female physicians. They viewed the EHR as unfriendly, and reported having to work more often at home. Those considering early retirement listed regulations, maintenance of certification and recertification, and decreasing reimbursement as major burnout factors.

Leadership makes a difference. There is less burnout when leaders are supportive, engaged, and willing to make a difference. Poor leadership is associated with low satisfaction, low productivity, and high turnover rates.[14]

Consequences of Burnout

The costs of burnout include decreased productivity at work, and effects on patient safety and quality of care. Physicians who are burned out are more likely to have medical errors. In addition, malpractice suits may contribute to burnout.[15] A meta-analysis found physician burnout associated with a two-fold increase in unsafe patient care, and lower patient satisfaction.[16]

Prevention and Treatment

This a solvable problem. A systematic review and meta-analysis of 15 randomized studies and cohort studies showed a reduction in burnout from 54 percent to 44 percent, using either organizational or individual based strategies.[17] This is not a dramatic result, but at least it is a positive effect.

An example of interventions that can work comes from a randomized control trial of 34 primary care clinics in Hennepin County, Minnesota. Half were randomized to a work life intervention, for which the clinic could choose one of three types; the others were the control group with no intervention.[18] Burnout was measured at baseline and at 12 months and 18 months. Clinics that had an intervention had less burnout (seven percent compared with 22 percent) and higher satisfaction. The most helpful interventions were changes that made workflow better, and those that resulted in better communication with clinicians and staff. Quality improvement projects were less effective.[18]

The Rand report proposed a change of orientation of our systems away from regulation, payment rules, financial incentives, public reporting, and threats of legal action to a focus on targets of fair treatment, responsive leadership, and attention to work quantity, content and pace.[10] They note provider dissatisfaction is an indication of potential delivery system dysfunction.

The American Medical Association published a Charter on Physician well-being that clearly outlines the guiding principles of:

1. Effective patient care promotes and requires physician well-being;
2. Physician well-being is related with well-being of all members of the health care team;
3. Physician well-being is a quality marker; and
4. Physician well-being is a shared responsibility.[19]

The American College of Physicians (ACP) position paper, "Putting patients first by reducing administrative tasks in health care," provides a framework for analyzing administrative tasks.[20] In fact, the ACP's recent position paper on physician impairment and rehabilitation states, "As part of the medical profession's social contract, physician well-being should be identified as a quality marker for healthy organizations and physician communities."[21] We must reduce the burden of rules and regulations so providers can focus on patient care.

The EHR needs to be based on patient care, not on billing. Other things that help are using scribes or natural language processing. There must also be changes in regulations around documentation. Recently CMS has proposed changes to simplify documentation requirements in its "patients over paperwork" initiatives.[22]

Team-based health care provides a model for delivering patient care where each member of the team functions at the top of their training and can benefit all members of the team, as well as patients.[23]

As leaders recognize the overt and hidden costs of burnout, there is a strong business case to be made for investing in strategies and resources to combat it.[24] Shanafelt and colleagues provide a user-friendly grid to assess where an organization is on a spectrum from recognition as a first step, to expertise in physician well-being to full physician engagement in organizational development. They also provide worksheets to project costs and return on investments.[25]

What Can We Do Now?

The top seven drivers of distress as identified by Shanafelt and colleagues are:[25]

1. Workload
2. Efficiency
3. Flexibility and/or control
4. Community at work
5. Work life integration
6. Culture and values
7. Meaning in work

The first three are system, and the last three are individual, and the fourth, community at work, can fit in both categories. Consider the system factors as related to the practice of medicine and the individual as related to the practice of ourselves. We are our best allies and resources, and we must have physicians at the table. In terms of managing change and leading change, we need to be there and have a voice and a vote. On a personal level, we are our best support as we look to ways to improve our work environment. The Rand report noted the importance of collegiality, fairness and relationships, including colleagues, outside providers, patients and payors.[10]

When things go wrong (because they will as we are all human and make mistakes) peer support is invaluable. As a Seattle surgeon said many years ago, "The day you stop feeling bad about your complications is the day you quit." As a gastroenterologist with decades in practice, I had complications and adverse events. I aimed to learn from each one. However, I often found it difficult to forgive myself even though I would forgive a colleague for a similar error or mistake.

Research shows that peer support programs after adverse medical events are preferable to employee assistance programs or mental health referrals.[26] Only peers can truly understand the complexity of errors, the emotions associated with them and the personal toll they can take. We must move away from our culture of endurance and be more supportive, especially when things go wrong.

An article by Shanafelt[27] suggests a tiered approach to battling burnout. The steps are: identify and balance professional and personal goals; identify stressors; shape your career path; and nurture personal wellness strategies.[28]

Identify and Balance Professional and Personal Goals

A good first step is to identify your top five values, both personal and professional. Make sure they are not in conflict, or if they are, to step back and re-evaluate. Pick the top five that articulate the values you hold deeply that govern all aspects of your life. Some questions you may ask yourself is why you chose your career, and what you like most about your job. Looking ahead at the long view is very helpful. What are three things you wish to accomplish at the end of your career?

Years ago, when my children were young, I did an exercise recommended in a Steven Covey book to write your obituary. While it sounds morbid, I did find it helpful as I felt less guilty about the time spent with family compared with time at work. I recognized that what I valued most in my life was family and friends, and that meeting my RVU targets would not be part of my obituary or legacy.

Integrating work and everything else is a major challenge. It is helpful to determine your greatest priorities in life, and where you are most irreplaceable. Years ago, I read a quote by author James Patterson describing the spheres of life as balls: health and family are glass balls which will break if you drop them, but work is a rubber ball and will bounce.

Shape Your Career Path

Identifying your goals and values makes it easier to shape your career path. A study from Mayo Clinic found that those who spent at least 20 percent of their professional time doing what they enjoyed, no matter if it was patient care, research, teaching, or administration, had less burnout.[29]

Identify Professional Stressors

It is helpful to know what can and cannot be changed. Let go of frustrations. If you are a leader, you will likely spend 80 percent of your time with your poorly functioning employees, when it should be the reverse. One quote I heard that I found helpful, "if you like your job 80 percent of the time, that is as good as it gets." We can all get to 80 percent, and not try for the unachievable 100 percent.

Nurture Personal Wellness Strategies

We all know what these are, but we may not take the time to do them. On an airplane we are told to put on our own oxygen mask before helping others. We know how important it is to have time with family, friends, hobbies, healthy eating, and exercise, as well as getting enough sleep.

Scheduling and time management overlaps with the system factors, but we must have some control over our schedules. I have received feedback that the most valuable advice that I have given over the past five years is to take a day off after being

out of the office, whether for vacation or for work. You all know why—you jump right back to work without ever digging out from the things that accumulated while you were out of the office. Take a day to dig out. You will not regret it. A few other tips and suggestions are:

- Block time off during the day to eat lunch, take a walk, catch up on minor tasks.
- Be sure to block time off for important personal events.
- Identify backups, as our house staff do, when an emergency comes up that may interfere with the above.
- Review your schedule with your life partners and family. Be sure to schedule vacations and try to take at least one or two consecutive weeks of vacation a year—after one week you may be ready to really relax.

Mindfulness-based stress reduction is deliberately paying attention to what is happening around you and within you, in your body, heart and mind. It means being aware without judgment or criticism. Types of mindfulness include meditation and narrative writing,

Practicing meditation and mindfulness can be quite challenging. In a study published in *Science* several years ago, people were asked to be alone for 15 minutes with their thoughts. This was so aversive to many of the participants that they said they would rather self-administer electric shocks (even when they earlier said they would pay to avoid them). The authors concluded that the untutored mind does not like to be alone with itself.[30]

Mindfulness training for primary care physicians has been associated with less burnout, less depression, less anxiety and stress, and with better communication with patients, and with improvement in well-being and patient centered care, both short- and long-term.[31]

Narrative writing can be helpful. When I have had an emotional response to a patient or encounter, I write it down, put it aside, then take it out a few months later and read it aloud to myself. Both practices help me to process the events.

Negativity bias is hard wired into us, as Barbara Fredrickson states, "the negative screams at you but the positive only whispers."[10] Recognize this, and figure out how to combat it.

Surround yourself with positive people. Remember it only takes one burned out worker to make a unit unhappy. Finding the right colleagues is key as we often may spend more time with those at work than those at home.

The literature on happiness suggests that 40 percent may be genetic. But that means we can affect the other 60 percent. Consider a gratitude journal. Every night before bedtime, write down three good things that happened that day and why. The effects of doing this for only a few weeks can last for three months. A study of the Three Good Things intervention was helpful in neonatal ICU health care professionals.[33]

Our Professional Societies

You are reading this paper because the AΩA has strong interest and initiatives on professionalism and convened a meeting addressing professionalism and burnout. AΩA Executive Director Dr. Richard Byyny's article in *The Pharos* clearly articulates the challenges and some solutions to burnout and resiliency.[34]

The American Medical Association (AMA) has an initiative on professional satisfaction, and suggests changing the triple aim to better health care, lower cost, and to a quadruple aim by adding clinician satisfaction. Their website (STEPS Forward) has excellent resources, including a self-assessment survey (the miniZ), and a 10-item survey that can prompt awareness.[35]

The ACP also has a position statement about putting patients first by reducing administrative tasks in health care.[20]

The National Academy of Medicine (formerly Institute of Medicine) launched a collaboration with Association of American Medical Colleges and Accreditation Council for Graduate Medical Education on clinician well-being and resilience with goals to focus on solutions and progress at the organizational, system, and cultural levels.[36] Their clinician well-being knowledge hub is a valuable resource. One article of great importance addresses areas for much needed research to help understand and address burnout.[37]

The American College of Gastroenterology shows what a specialty society can do. After recognizing the importance of burnout, they commissioned the provider survey mentioned earlier. In addition, they work with other societies to advocate for reducing burdensome requirements for physicians. They have added talks at annual and regional meetings, and added helpful modules to the practitioner toolbox, such as team-based care. Their professionalism committee published a white paper that includes strategies to combat burnout, and areas for future research.[38]

It Takes a Village

As with the phrase it takes a village to raise a healthy child, it will take a very large city to address institutional and system factors that contribute to provider burnout. The good news is that these are all solvable problems. It takes will, resources, cooperation, and vision. A recent cost-consequence analysis of the economic burden related to physician burnout concluded that moderate investment can result in substantial economic value.[39]

Let's not forget we are lucky to be in a wonderful profession. In clinic on a busy day, I remember the advice of Dr. Ronald Vender, Chief Medical Officer, Yale Medicine, who said, "Remember that for every patient, their visit with you is likely the most important event of the day."

And Dr. Viktor Frankl, author of the book *Man's Search for Meaning*, found that meaning in life can sustain one even in the most difficult circumstances, for him it was being in a concentration camp. He said, "Those who have a 'why' to live, can bear with almost any 'how.'"[40]

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Chapter 12

Changing the Behavior of Organizations

Steven A. Wartman, MD, PhD, MACP

Medical organizations are evolving rapidly to meet 21st century challenges. However, there is a deeper factor underneath this rapid evolution: the profound cultural shift taking place as our civilization transitions from a print-based industrial society to a technology-based Internet society.[1] The hallmark of this shift is the phenomenon known as the Technologic Convergence, where increasing amounts of digital products such as nanotechnology, 3-D printing, artificial intelligence, robotics, and data aggregation are working together to vastly increase their collective reach and power.[2] This transformative impact is game-changing, not only for medicine but for many other professions as well. The former editor-in-chief of *The Guardian* described the challenge as, "Our generation had been handed the challenge of rethinking almost everything societies had, for centuries, taken for granted about journalism"[3] (one can easily substitute "medicine" for "journalism").

This transition is highly problematic for medicine and presents at least three existential challenges:

1. What does it mean to be a "professional?"
2. What is "knowledge" and how can it be curated; and
3. What are the implications of a new kind of "global patient?"

What is a "Professional" in the 21st Century Context?

For millennia a member of a profession has been defined as being the exclusive bearer of a body of knowledge to be used in the delivery of services to clients. In medicine—and no doubt in many other professions—the amount of information available has for some time far exceeded the capacity of the human mind. At the same time, this information has become widely available outside of the profession. These unremitting trends diminish the exclusivity of the knowledge traditionally held by physicians. This is true for knowledge as well as for a growing variety of skills that are increasingly being delivered by machines. Thus, the profession of medicine is facing a loss of control of its knowledge management and unique expertise. The roles of physicians and other health professionals are changing, often without the direct input and leadership of the profession itself.

What is "Knowledge" and How Can It Be Curated?

There is an important distinction to be made between knowledge and information. Knowledge implies understanding, while information is simply raw data. The ongoing amassing of medical information via the Internet presents a fundamental challenge to the hegemony of the profession. The profession has a long-standing responsibility to curate this information, but the means for doing so in the age of the Internet of All Things is not clear.

The curation of medical information has classically relied on journals, textbooks, professors, and leading experts. A casual online search of any medical condition reveals a plethora of "hits" listed in an order determined by proprietary algorithms largely outside the purview of organized medicine. The profession has not yet developed a comprehensive strategy to remain the leading trusted source for curated medical information.

What are the Implications of the "Global Patient"?

Medical care is evolving to be delivered wherever the patient happens to be located, whether this be at home or other venues distinct from hospitals, clinics, and offices. This changing care model is increasingly reliant on newly interdependent teams of practitioners with a number of different skill sets, a variety of "smart" machines, and care informed by probabilities generated from big data by artificially intelligent platforms. These changes dramatically challenge the classic model of the physician in the office or medical center. As increasingly sophisticated artificially intelligent platforms identify the odds of diagnosis and treatment, "the new tools for tailoring treatment will demand greater tolerance of uncertainty…for which we are largely ill-equipped and that we already struggle with."[4]

Changing to Meet the Challenges

As medical organizations face these complex challenges, no operational area is untouched, including business models, evolving roles and relationships, staffing, information technology, and academic entitlements. In response, medical organizations, as they face new delivery modes, financial imperatives, and changing patient and societal expectations, continue to grow in size and budget while augmenting their bureaucracy. The consequences of these developments raise the possibility that medical organizations may be heading toward a Darwinian struggle for dominance, and, in some cases, survival.

Most physician leaders of medical organizations come from specialist and/or academic backgrounds and are not trained to manage this level of complexity. The problem is compounded as most of these organizations are managed conservatively, are risk-adverse, and are staffed by highly accomplished individuals who tend not to view themselves as beholden to administrators. Changing an organization's

culture and behavior requires talented, emotionally intelligent, transformational leaders. These successful leaders must command a generalist's grasp of all aspects of the enterprise, and fully appreciate how new programs and directions interface with existing priorities. They must realize that not everyone working at their institution will share the new priorities, and that simply articulating a compelling vision is not enough. They also must appreciate why academic accomplishment does not necessarily correlate with successful leadership. The most successful leaders will understand that their decisions have moral as well as pragmatic consequences.

Keys to Changing Organizational Behavior

1. The challenge in a nutshell

Understanding organizational and cultural change requires acknowledgment of a fundamental human response; that organizations and individuals tend to preserve the problem to which they should be the solution.[5] It is vital that the leader and leadership team understand that resistance to change is normal and requires extra effort and psychological understanding for its mitigation.

2. Bring about a meeting of the minds

Getting individuals on the same page is an overworn cliché, but is nevertheless an important empirical strategy to facilitate change. Often, efforts to do so get mired in an open-ended search for outside, presumably successful models. While this has some merit, it does not pay sufficient attention to the unique internal realities, values, goals, and limitations of the home institution. A thoughtful and probing evaluation of the following items prior to the setting of new institutional goals and priorities is recommended. This requires appreciable time, effort, and a willingness to be honest and openly introspective while offering an invaluable opportunity to overcome the challenge.

The following points for robust discussion in a retreat setting are suggested as the initial approach:

1. Determine if your institution is effectively meeting 21st century challenges;
2. Explore how your institution differs from other similar organizations;
3. Do not get sidetracked by a strong focus on finding outside models;
4. Commit to reimagining every aspect of leadership, operations and management;
5. Find strategies to overcome inherent institutional inertia;
6. Endeavor to capture synergies between components that would be stronger if they were aligned and working together; and
7. Identify a concrete plan for compassionate change.

3. Keep the following caveats in mind

- Do not assume that reasonable individuals will share the new goals and priorities. Staff at all levels of an organization are vested in their current roles, whether as a matter of reputation, prestige, or habit. A change in direction may suggest that their performance is either undervalued or not needed.
- It is imperative that leadership undertake a substantial and on-going process of two-way communication to show appropriate respect while ensuring that the rationale for change is understood.
- Take the time to manage up. It is too common for leaders to not pay close enough attention to the boards and individuals to whom they report. Leaders are generally comfortable managing down, but fail to ensure that the changes they are planning for the organization have the full understanding and buy-in of the entities to which they report (e.g., boards, university presidents). Often, the entities that are responsible for the hiring and ongoing evaluation of institutional leaders are composed of individuals without a deep background in medicine. Thus, a coherent strategy (often time consuming) is necessary to enhance the potential for new priorities and directions to be supported and sustained through the inevitable rocky times.
- Invest in a real implementation strategy. A detailed implementation plan is a necessity that requires a dedicated staff. Simply tacking on new responsibilities to otherwise busy individuals will tend to seriously dilute the effort. For example, leaders will often focus obsessively on a set of new goals and directions but fail to see their impact on existing programs, processes, and individuals.
- To achieve the desired changes, it is essential to look carefully at all aspects of the organization to achieve a meaningful understanding as to how the suggested changes impact long-standing and entrenched areas. It is rare that a particular change stands alone without impacting other elements.
- Leave your ego at the door, and give something up. The perception that a desired change planned for an institution is being crafted to sustain or nurture the career and ego of the leader often dooms the program early on. A sense of humility is essential along with a tangible demonstration that the leader is willing to change her/his behavior. Making a financial contribution or taking a cut in salary, while superficially compelling, is only a relative and imperfect driver of motivation because it is highly dependent on the individual's personal (and unknown) circumstances. It is more powerful to demonstrate relatable and concrete efforts, such as giving up personal research, transitioning programs to other partners, or empowering others.
- Be sensitive of the need for mission-balance with a plan to manage the clash of the horizontal and vertical forces. A common mistake with directional change and the implementation of new priorities is that the leadership team assumes that other individuals and departments in the organization will embrace the new priorities

with the same zeal and vigor as they themselves have. In reality, most individuals believe in what they are currently doing and do not want to give up what has been guiding them in the past. Leaders must seek to achieve mission balance by being careful that the new goals do not subsume or overwhelm other important priorities. New objectives will clash with the way routine business is conducted. Often these new directions (sweeping horizontally across the organization) clash with local compartmentalized activities (vertical forces). The leadership team must carefully examine the intersections of these forces and devise specific plans to manage them.

- Find and develop a trustworthy team without sycophants. Their inclusion creates a poor perception, suggesting favoritism and weakness of the leader, while blunting the need for creative challenges and ideas. It is essential that organizational changes be led by a team of champions: individuals who fully embrace the changes and are able to inspire others to also do so. Leadership teams are often beset with individuals who cling to the way things have been done in the past. These individuals should be challenged to see if they are capable of change, and if not, be gracefully removed from the team.
- Adapt, or create, new business models that promote the implementation of the planned changes. It is imperative that new or modified business models and plans be created for the changes. This requires a comprehensive level of detailed planning and budgeting, and should not be left to staff to "figure it out."
- Finally, don't get trapped by the problem that won't go away. How best to incentivize health care providers is a veritable quagmire and time sink. As pointed out in a prescient article, "There are many mechanisms for paying physicians; some are good and some are bad. The three worst are fee-for-service, capitation, and salary."[6] Beyond reviewing the alignment of incentives with the proposed new direction and retaining the capacity to be pragmatic and nimble in the face of market changes, it is best not to devote considerable energy and political capital toward a definitive discussion of an issue beyond the control of a single institution.

A Daunting But Impactful Task

Getting established medical organizations to change and/or modify their behavior and culture is a daunting task. Arguably, it is the only way that leadership can be effective and impactful. A deep understanding of individual and organizational dynamics is essential, but this task can be undertaken successfully only if the leader and leadership team possess, in addition to a deep knowledge of the institution's strengths and weaknesses, a number of key leadership traits. These include a high degree of emotional intelligence, a generalist's appreciation for all aspects of the organization, and the ability to bask in the reflected glow of others. Selection of the right leaders, as opposed to the usual leaders, must be the paramount task for those institutions looking to flourish in the 21st century.

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Chapter 13

Recovering the *Joie de Vivre* in Medicine: The Importance of Organizational Culture

Eve J. Higginbotham, SM, MD, and Dominique Alexis

A Joyful Heart is Good Medicine
— Proverbs 17:22[1]

Academic medicine and the United States physician workforce are undergoing dynamic changes with increasingly diverse populations served, advancements in technology, and increased reliance on interdisciplinary clinical and research teams. There are greater numbers of women and minorities matriculating in schools of medicine and entering practice. Couple these trends with an underlying shortage of physicians, a heavy reliance of administrators on metrics quantifying clinical productivity and the satisfaction of each patient, and loss of provider autonomy. Over the last few decades, there has been an increasing trend toward physicians being employed by large health systems.[2] All of these factors contribute to an inescapable shift in the culture of medicine. As these changes occur, it is important to ask ourselves if the culture and professionalism standards of our institutions and practices are meeting the needs of all who are committed to delivering the best care and seeking new pathways to discover cures for diseases; allowing everyone to thrive in an inclusive working environment. Statistics suggest otherwise, given the growing evidence of health professionals who are losing a sense of *joie de vivre* in medicine. As the demands for physicians, trainees, staff, and students increase, organizations should confront burnout and its harmful effects as it is imperative to maintaining the integrity of our profession and affirming the core values of medicine and scientific discovery.

Defining Burnout

Burnout, often measured using the Maslach Burnout Inventory,[3] is defined as a "syndrome characterized by a high degree of emotional exhaustion, depersonalization (i.e, cynicism), and a low sense of personal accomplishment due to work-related stress."[4] Emotional exhaustion refers to depletion of emotional energy by continued work-related demands. Depersonalization refers to a sense of emotional distance from one's patients or career objectives. Low personal accomplishment is characterized as a decreased sense of self-worth or efficacy related to work.

Factors that can contribute to physician burnout include organizational culture, learning environment, practice setting (hospital, clinic, etc.), regulations, specialty type, career stage, and work-life balance.[5] Studies have organized factors that contribute to burnout into seven categories: workload, efficiency, flexibility and/or control, culture and values, work-life integration, community and work, and meaning in work.[6,7] Burnout is largely a system-level problem driven by increased work demands and insufficient resources and support, rather than an individual problem triggered by personal limitations.[6]

The body of evidence on physician burnout has increased in the past decade with well-known organizations such as the Institute for Healthcare Improvement, National Academy of Medicine, and health care CEOs recognizing and responding to this epidemic.[8-10] A study by Shanafelt and colleagues revealed that burnout was significantly more prevalent among physicians than among working adults in the general population of the United States.[11] In addition, medical student and resident burnout have been estimated to be between 40 percent and 76 percent[12] while pre-medical students were found to have higher rates of burnout than their peers studying other subjects during their undergraduate education.[13]

Demographic

There are contributors to burnout that are gender specific. Due to societal norms and biology, work-life integration continues to be more of a challenge for women than men. Gender role expectations and/or external demands such as child-bearing and childcare, sexual harassment, gender bias, and inequities in promotion and compensation are added stressors for women.[14,15] LaFaver and associates[16] found that more women than men met the burnout criteria. They reported that a greater number of weekends performing hospital rounds were associated with higher burnout risks for women. It has been observed that women neurologists made proportionately more negative comments than men regarding the intensity of the workload, work-life integration, leadership and deterioration of professionalism, and demands of productivity eroding the academic mission.

A climate survey at the University of Pennsylvania in 2018 reflected similar findings as men were noted to be more satisfied with their job as compared to women. Women were the highest among those agreeing with difficulty balancing work and home (75 percent); expressing concerns about burnout (76 percent); feeling stressed beyond a comfortable and energizing level (54 percent); noting concerns with salary (53 percent); and expressing concerns related to the inadequacy of time for academic pursuits (61 percent). The survey also revealed that perception of control over daily work life is worse for women.[16]

Studies also suggest that minorities appear to be at lower risk for burnout than others.[5,17] It can be argued that ancestry contributes to the distress of minority students and has adverse effects on their experiences. Minorities throughout

Primary drivers of burnout and satisfaction in physicians	Individual	Work unit	Organization	National factors
Workload	• Specialty • Practice location • Decision to increase work to increase income	• Productivity expectations • Team structure • Efficiency • Use of allied health professionals	• Productivity targets • Method of compensation - Salary - Productivity-based	• Structure reimbursement - Medicare/ Medicaid - Bundled payments • Documentation requirements
Efficiency	• Experience • Ability to prioritize • Personal efficiency • Organization skills • Willingness to delegate • Ability to say "no"	• Availability of support staff & their experience • Patient check-in efficiency/process • Use of scribes • Team huddles • Use of allied health professionals	• Integration of care • Use of patient portal • Institutional efficiency - EHR - Appointment system - Ordering systems	• Integration of care • Requirements for: - Electronic prescribing - Medication reconciliator - Meaningful use of EHR • Certification agency facility regulations
Control over work/ autonomy/ flexibility	• Personality • Assertiveness • Intentionally	• Degree of flexibility: - Control of physician calendars - Clinic start/end times - Vacation scheduling - Call schedule	• Scheduling system • Policies • Affiliations that restrict referrals • Rigid application practice guidelines	• Pre-certifications for tests/treatments • Insurances networks that restrict referrals • Practice guidelines
Work-life Integration	• Priorities and values • Personal characteristics: - Spouse/partner - Children/ dependents - Health issues	• Call schedule • Structure night/weekend coverage • Cross-coverage for time away	• Vacation policies • Sick/medical leave • Policies - Part-time work - Flexible scheduling	• Requirements for: - Maintenance certification - Licensing
Meaning in work	• Self-awareness most personally meaningful aspect of work • Ability to shape career to focus on interests • Doctor-patient relationships • Personal recognition of positive events at work	• Match work to talents & interests of individuals • Collegiality in practice environment • Work unit leadership • Opportunities for involvement - Education - Research - Leadership	• Organizational culture • Organizational leadership • Organization values • Practice environment • Opportunities for professional development • Organization's mission Service/quality vs profit • Collegiality across the organization	• Evolving supervisory role of physicians (potentially less direct patient contact) • Reduced funding - Research - Education

Drivers of burnout and examples of factors that influence each driver.[7]

the pipeline can be subject to, and experience discrimination, bias, prejudice, and feelings of isolation, as well as interpersonal, communication, and cultural differences in addition to dealing with the "minority tax." This tax is described as an underrepresented minority (URM) student, trainee, or faculty's inherent obligation to address societal and organizational issues such as diversity and

inclusion efforts, feelings of isolation, mentorship, promotion, as well as identifying strategies to address racism and discrimination.[18] One survey noted that minority medical students had a lower sense of personal accomplishment and quality of life than nonminority students.[19] This may lead to burnout considering the importance of personal accomplishment to individual sense of purpose. Therefore, additional studies are needed to determine the role minority status plays in burnout.

Similar to women, URM physicians are less likely to be in leadership positions or receive equal pay, and are promoted at slower rates, yet pay a higher proportion of their earnings to student debt.[20,21] Financial stressors may compound the intensity of existing adverse factors in burnout among minority groups.

Burnout among underrepresented groups can also lead to greater attrition among the very group of physicians who are more likely to address disparities in health care in underserved communities. This trend will ultimately contribute to slower progression toward health equity. Some studies suggest that ancestral concordance among minority physicians and patients can benefit health outcomes and satisfaction.[22,23] Moreover, women physicians have made many advancements in areas of women's health, are more likely to care for women, and are found to be more patient-oriented and engaged as compared to male physicians.[21,24]

An Important Topic

Given the impact of burnout in the medical community, this topic has become increasingly more difficult to ignore.[25] West and co-workers[25] listed lower quality care, medical errors, longer recovery times, and lower patient satisfaction as critical consequences to the care of patients when health professional burnout is observed. The well-being of health care professionals can contribute to the quality of care. Quality of health care and disparities are intricately linked.

Quality, defined by the Institute of Medicine (IOM), refers to "the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[26] Quality is further defined by six domains:

1. Effectiveness;
2. Efficiency;
3. Equity;
4. Patient centeredness;
5. Safety; and
6. Timeliness.

All of these domains can be affected by burnout, and as a result, health care disparities that occur due to a lack of quality can be exacerbated.

One facet of the equity domain is equitable care, which is defined as "providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status."[27] Burnout can enhance the likelihood of implicit biases, as being busy and distracted, shapes decisions based on inherent biases. A less than reflective process of thinking can lead to a decrease in quality and equitable care. Addressing burnout has the potential to reduce implicit biases and improve decision-making.

Applying the causes and effects of burnout to quality of care and health equity presents a unique opportunity. Aysola and Meyers[28] discuss integrating existing quality improvement (QI) efforts and health equity. They provide a four-step framework in which we can embed equity into QI efforts:

1. Define terms and concepts;
2. Understand and disseminate the current knowledge of health care disparities in a field;
3. Identify health care disparities locally and apply QI methods to address them; and
4. Evaluate every QI effort for the potential equity angle.

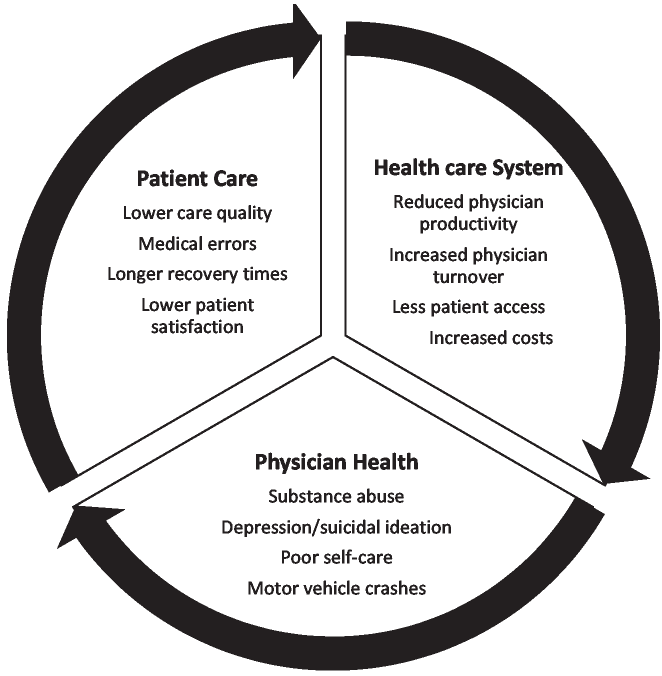
The better the well-being of health care professionals, the better quality and equitable care provided to patients, which together could help close the gap on health disparities across populations.

West[25] describes consequences that could affect the health care system such as reduced physician productivity, increased physician turnover, decreased patient access, and increased costs. Listed under physician health, substance abuse, depression and/or suicidal ideation, poor self-care, and motor vehicle crashes were noted to be potential manifestations caused by burnout.

Increased implicit bias is also important to note. There remains a strong moral and ethical case for organizations to address physician burnout, however there are also the financial implications. Burnout can contribute to an increase in attrition and turnover rates, lost revenue associated with decreased physician productivity, and potential risk and threats to sustainability as a result of quality, low patient satisfaction, and patient safety and outcomes.[26] Burnout may actually worsen the projected workforce shortage.[21] It may also lead to a toxic environment that may result in legal action taken against an employer under Title VII.[29]

Barriers to Help

Burnout can be exacerbated as physicians, trainees, and students encounter barriers for resolving the issue. Some barriers include exclusion, discrimination, stigma, concerns about professional advancement, fear of consequences, time constraints, and confidentiality.[30] The longstanding culture of perfection in the medical profession increases these barriers.



Consequences of physician burnout.[25]

To increase awareness and reduce the stigma, we must move toward a culture that fosters environments where health care professionals at any stage feel they can be vulnerable and admit when they need help. Organizations should increase normalizing the topic of burnout and align it with other institutional initiatives such as professionalism and wellness.

The Intersection of Burnout and Professionalism

Burnout should not be viewed as an isolated issue as there is an association between burnout and low professionalism.[31,32] Panagioti and colleagues'[32] study revealed that burnout in physicians was associated with twice the odds of exhibiting low professionalism. Depersonalization was associated with a three-fold increase in odds, while emotional exhaustion and reduced personal accomplishment were associated with a 2.5-fold increase in odds for low professionalism. Symptoms of depression or emotional distress were associated with 1.5 times increased risk for low professionalism. This association was larger in residents and early career (less than 5 years post-residency) physicians compared to mid- to-late career physicians. The erosion of professionalism due to burnout can have negative effects on workplace culture.

Workplace Culture

Workplace culture is an area organizations can address to reduce burnout among physicians. Burnout is infectious among co-workers and can be transferred from one employee to another, and the perceived social environment can play on the development of individual burnout.[33,34] Workplace culture is perceived differently among diverse groups. The University of Pennsylvania measured organizational cultural competence to promote diversity. The 2015 Diversity Engagement Survey revealed women and minorities were less likely to perceive their organization as culturally competent.[35] In addition, respondents self-identifying as non-Hispanic Black, females, and LGBTQ compared to non-Hispanic white, males, and heterosexuals, respectively were significantly less likely to rate institutional culture above the mean.

Workplace culture can be improved for all members of the physician workforce through synergy of inclusion, professionalism, and wellness efforts, which can decrease burnout.

Inclusiveness

Organizational support remains one of most important elements in reducing physician burnout. Organizations have a responsibility to:

1. Engage executive/senior leadership in supporting efforts to minimize burnout;
2. Integrate inclusive leadership skill-building into institutional professional development programs;
3. Foster inclusive processes that support transparency and elevate trust across all stakeholders in the organization;
4. Employ optimal team-based care to reduce clinician burnout, assisting with the burden of caring for patients in an increasingly complex environment; and
5. Mainstream burnout initiatives and align these initiatives with other institutional initiatives such as professionalism and wellness.

There are other models to consider including the Mayo Clinic's which has created a strategic framework that organizations can use to promote physician well-being:[36]

- Acknowledge and assess the problem;
- Harness the power of leadership;
- Develop and implement target interventions;
- Cultivate community work;
- Use rewards and incentives wisely;
- Align values and strengthen culture;
- Promote flexibility and work-life integration;
- Provide resources to promote resilience and self-care; and
- Facilitate and fund organizational science.

A Shift in Thinking

Burnout remains a serious concern in the health care field and cannot be addressed in isolation. Rather than addressing its effects, we need to shift our thinking to addressing root causes. Reducing burnout among health care professionals can lead to a more inclusive productive workplace, lead to more compassionate patient care, increase patient satisfaction, contribute to quality efforts, and advance health equity.

It is the responsibility of the organization to create an environment where all physicians, trainees, staff, and students feel comfortable and safe, and able to discuss burnout. There should be an understanding about how the perspectives of individuals can shape their perceptions of challenges in the workplace and deepen their isolation.

It is the duty of physicians, trainees, staff, and students to challenge the historical traditions of medicine and speak up about contributors, both professionally and personally.

By working together we can move toward a health care system and workplace that is happy and healthy for all involved. We can and should reclaim the *joie de vivre* in medicine.

Building blocks for an inclusive workplace

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Chapter 14

Resilience, Burnout, and Communities of Practice

Sylvia R. Cruess, MD, and Richard L. Cruess, MD

> Disconnection is the single greatest threat to our efforts to foster resilience and to promote wellness.[1]

While some skepticism has been expressed about the depth and quality of our knowledge about burnout in members of the medical profession, from medical students to residents and practitioners,[2,3] it is quite clear that there is genuine cause for worry about the emotional health of those mandated to care for the sick.[4] While this concern is motivated by compassion for those learning to be practitioners and actively engaged in the practice of medicine, there is solid evidence that there is an impact on the quality of the care given by physicians who have diminished emotional commitment to their profession as a result of burnout.[4] Thus, the issue is of importance to both medicine and the general public.

Burnout, according to Maslach and colleagues[5] is a cluster of factors, including depersonalization, emotional exhaustion, and a sense of low personal accomplishment, that is associated with decreased work performance. Resilience, derived from the Latin word "resilire," to spring back or rebound,[6] has been defined as, "a set of attributes demonstrated by an individual over time as the ability to succeed, to live, and to develop in a positive way despite the stress or adversity that would normally involve the real possibility of a negative outcome."[7]

Although there is some variation in the reported incidence of burnout,[2-4] a consensus appears to exist that about 50 percent of students, residents, and practitioners report significant levels, usually based on either the full Maslach Burnout Index[5] or assessment tools using a portion or variations of the index.[3] As medical educators working in a Canadian medical school within the Canadian health care system, our concerns mimic those of our colleagues from other countries because our data are very similar to those emerging from other jurisdictions. The Association of Faculties of Medicine of Canada,[8] and an independent Canadian survey have reported[9] that symptoms of burnout are found in about 50 percent of students, residents, and faculty members, with 23 percent demonstrating real burnout based on the Maslach Index. The factors leading to this situation in Canada also appear to be similar to those found elsewhere.[8,9]

Many observers have divided the factors that have been associated with burnout into two categories: those that are primarily associated with disciplines, systems,

or institutions, and those that are dependent on the individual and his/her capacity to respond to these factors.[10] It is at this point that the concept of resilience becomes important.

Individuals can vary widely in their resilience, and hence in their ability to respond positively to the many stresses inherent in the practice of medicine.[7] There are individual physicians who demonstrate an astonishing capacity to deal with adversity and to "spring back" according to the Latin definition. Others enter the medical community much more vulnerable to the inevitable stresses that they must face. However, three points about resilience are important:[7,10-12]

1. Even the most resilient individual can experience burnout if the stresses in their personal or professional lives exceed their capacity.
2. Resilience, and therefore the susceptibility to burnout, varies throughout an individual's life depending on their personal and professional circumstances.
3. It has been demonstrated that educational interventions can enhance an individual's resilience.[9,11]

The Multiple Facets of Medicine as a Community

Since its origins, medicine has been recognized as constituting an identifiable community devoted to healing, with the Hippocratic Oath emphasizing this fact.[13]

For many years, the word collegiality was used to describe this sense of community,[14] and the recognition of the centrality of morality to the concept caused many to use the term "moral community" to describe the profession.[15] There has always been an emphasis[11] on the importance of the sense of community on the interrelationships between its members. However, references are also made to the importance to individual members of belonging.[1,10,11] Eliott Freidson in his final book stated that medicine must be devoted to "serving some transcendent value and asserting greater devotion to doing good work than to economic reward."[16] He believed that this was essential if the "soul" of the profession is to be preserved.

If those preparing for, or actively engaged in, the practice of medicine are to feel that they are members of the community and derive joy from their professional activities they must share in a sense that they are participating in a morally defensible and essential collective activity. Both the community and society have a role to play to ensure that this occurs.

The idea that medicine actually constitutes a learning community became accepted as educators came to regard learning as being primarily a social activity.[17,18] This resulted in the emergence of a group of social learning theories designed to support this concept. For medicine, the most significant of these is entitled "communities of practice" proposed by Lave and Wenger in 1991.[19] A community of practice is, "a persistent, sustaining, social network of individuals who share and

develop an overlapping knowledge base, set of beliefs, values, history, and experiences focused on a common practice and/or mutual enterprises."[20] This description accurately describes the activities carried out by physicians.

The theory has become widely accepted[17,18] as it has the ability to both help us understand medical education and to assist in designing a curriculum appropriate to our times.[21] This theory can be adopted as a theoretical umbrella, serving as the foundational basis of medical education,[21] in part because it has the advantage of having the capacity to incorporate other learning theories that refer to specific educational activities that take place within the medical curriculum.

According to the theory, individuals wishing to become physicians voluntarily join medicine's community of practice by becoming legitimate peripheral participants in the community—legitimate as they have been accepted as novices when they enter. As they proceed through their educational journey from layperson to professional[22] they move from peripheral to full participation in the community, and in the process acquire the identity of community members, accepting and internalizing its norms and values. They come to "think act and feel like physicians" [23] as a result of the process of socialization that takes place within the community.[24] The process of socialization can be stressful as the acquisition of a new identity entails suppression of parts of the old identity.[21]

The community is dynamic in that experienced practitioners are always retiring, being replaced by those wishing to join. The knowledge base that is fundamental to the practice of medicine is also dynamic, as it is recreated in each incoming member as they acquire and reinterpret it.[25] Each individual can have multiple personal and professional identities, the sum total of which determines who they believe themselves to be.[26]

Of significance to the subject of burnout is the fact that medicine consists of multiple communities.[27] Each physician belongs to the global community of healers as well as to their own national groupings as represented by their professional associations. One's specialty has a powerful impact on one's identity and represents a powerful community to each individual,[28] as do the university and hospital departments that are dependent on the commitment of individual members for their proper functioning.[27] This becomes relevant when one considers interventions designed to improve resilience and diminish burnout.

Because of its remoteness from the day-to-day activities of the practicing physician, a national medical association has a limited ability to impact the daily lives of practitioners. In contrast, specialty associations have a more significant role as they bring together individuals with similar interests who share the stresses and the joys of their unique discipline.[28] Of at least equal importance are the departmental or other groupings within hospitals, universities, and other institutions. These represent the communities of practice within which individuals work side-by-side every day. They are responsible for creating and maintaining a working environment, establishing rewards and disciplinary measures, and setting the rules and guidelines for local practices, all of which directly impact practitioners.[27]

Factors Contributing To Burnout
Institutional Issues
High work load/long hours/frequent calls
Unsatisfactory work-life balance
Impersonal health care systems
Lack of trust in health care systems and organizations
Feeling undervalued/a sense of disconnection or not belonging
Administrative burdens, including frustration with referral networks
Doing things that are "not doctoring"/paperwork
Difficult patients
Regulatory worries/medical legal issues
Fear of error
Type of work: Increased risk: urology, neurology, emergency medicine, general surgery Diminished risk: dermatology, pathology
Individual Issues with Increased Risk of Burnout
Gender - female
Age - younger physicians
Altered expectations
Personality - low empathy/high anxiety levels, defense mechanisms/ denial, minimalization, rationalization, high expectations of self and others, perfectionistic, self-critical, need for control
Mental illness, with an emphasis on depression

Those seeking to address resilience and burnout at all levels of medicine should examine both the institutional and personal factors that impact individuals through the lens of communities of practice. A sense of community and belonging is essential to the well-being of both learners and practitioners in medicine.[1,11,12] Interventions aimed at promoting resilience and preventing or treating burnout should be based on a unifying theory and communities of practice, which are best suited to serve this purpose.

There are many factors outlined in the literature (see table) that can lead to burnout among learners and practitioners. In analyzing them, it is important to recognize that they are the best approximation of the current picture that is

available. However, precise data on the attitudes of previous generations and the incidence of burnout at that time is lacking and therefore there is difficulty comparing the current situation to that faced in the past.[2] What is clear is that the current and recent generation of learners and practitioners have different expectations of what life as a physician should constitute.[4,8,10,29] Some of the frustrations found in the current generation result from dissatisfaction with the reality of present practice.[29] There has been a fundamental change in medicine's interpretation of its social contract with society.[30] The aspirations of the current generation are documented by their stated aspirations and their areas of dissatisfaction.

A part of this dissatisfaction undoubtedly results from the profound changes in the funding and organization of health care systems throughout the world.[31] The solo practitioner who enjoyed a high degree of autonomy has largely disappeared, and most practicing physicians now function within organizations. There has been a justifiable feeling that they have lost a substantial portion of the autonomy enjoyed by their predecessors.[16,31] In addition, there has been a loss of trust in the leadership of the medical community, "a crumbling of the common covenant between doctors and the medical profession itself."[32-34]

There does not appear to be an unrealistic desire to go back to the days of what Hafferty has termed "nostalgic professionalism."[35] All understand that medicine must evolve, and the changes being experienced result from pressure from previous and current generations for new approaches. The future will depend on how medicine's establishment and its leaders respond to the profound sense of unease felt by those now in practice.

As is well outlined in the literature, the issue of burnout can be addressed in two ways:[10] The impact of harmful institutional factors on the lives of current learners and practitioners must be minimized, and measures must be instituted that will help individuals become more resilient so that they may practice in a meaningful way in our complex shifting system.

Both interventions should be initiated by medicine consciously acting as a community of practice attempting to improve the working lives of its members.

While communities of practice share common features, there are differences imposed by context and time. Communities of practice are social structures that tend to reproduce themselves, perpetuating existing hierarchies, power structures, and inequities.[36] As such, they can be dysfunctional and counterproductive and the process of socialization can suppress important aspects of an individual's personal identity.[37] However, members of medicine's communities share common values, and, when functioning properly, emphasize horizontal accountability to fellow members.[38] Wenger stated, that "engagement in joint activities, negotiation of mutual relevance, standards of practice, peer recognition, identity and reputation, and commitment to collective learning" promotes a sense of belonging to the community, creating a sense of common purpose.[38] Leadership is also important to the well-being of the community.[39]

Several factors make it difficult for learners and practitioners to maintain what their generation, whether they are in the field of medicine or other areas of endeavor, place as their highest priority, achieving a satisfactory work-life balance with sufficient time away from their profession so that other interests can be pursued and family and private life be maintained.[37] The magnitude of their workload, the hours required, and the frequency and nature of call schedules are all cited as being excessive. Administrative burdens, particularly those not associated directly with patient care appear to be important.[4,8,9,11,12,32] These factors seem to be more relevant in individuals determined to be at high risk.[39,40,41] In addition, factors that contribute to a sense of isolation within an impersonal health care system that tends to undervalue an individual and diminish their sense of autonomy in its broadest sense are important.[4,8,9,11,12,32] Individuals can become lost in an unfeeling system that diminishes the autonomy traditionally valued by practicing physicians.[16]

The issues that relate to the individual rather than the system are generic and personal. Female physicians and younger individuals appear to be at higher risk for burnout, and individuals demonstrating certain personality traits are also more vulnerable.[4,8,41,42] Periods of transition also appear to pose a risk to vulnerable individuals.[21]

Recommendations

The issue of burnout is not new, and many organizations and institutions have already taken actions to address them.[10,40] The organization of activities to address resilience and burnout around the concept of communities of practice constitutes an opportunity to integrate a series of activities around a unifying concept that stresses a sense of belonging.

1. It is suggested that all activities directed at the twin issues of resilience and burnout, including the many that are already in place, should be organized around the concept of communities of practice, emphasizing the community's commitment to the individual.
2. An attempt should be made to identify the proper community to address the institutional and personal factors in a given environment, and to identify a leader/champion who is responsible for the community. In some instances, it may be a medical school or a hospital that is the most appropriate organizing structure. The wellness programs currently being implemented are examples.[10,40] This can be particularly relevant in those disciplines deemed to be at high risk.[8,9,40]
3. The well-being of any community of practice is closely linked to the quality, commitment, and effectiveness of the leadership of the community.[39] It is essential that senior leadership of an organization be involved in both the development and maintenance of programs aimed at promoting resilience and preventing burnout.

   For this to occur, community members must trust their leaders. Therefore, a significant role for those responsible for the direction of national and specialty

associations, local groupings, and communities is to establish and maintain trust in their leadership by members of the community.[33,34] Practicing physicians must come to believe that there is a community to which they belong, and that this community is truly interested in their well-being.

4. The community must be prepared to initiate change. This should include a willingness to examine the norms of practice on a national, regional, and local basis, and to alter them so that, as much as possible, the reality of practice corresponds to the reasonable expectations of the current generation. While not expressed in these terms, many of the interventions that have already been initiated, beginning many years ago with the regulation of work hours, are devoted to this objective.[41] This approach has as its primary objective improving the quality of life of medical students, residents, and practicing physicians.[11,40] However, it must be remembered that the health of medicine's social contract with society does not depend only on the system meeting the reasonable expectations of practitioners.[30] Professional status is granted to medicine by society on the clear understanding that reasonable societal expectations will also be met.[31,44] Therefore, as changes are made that result in alterations in patterns of care, it is essential that societal input be present.[45] A dialogue with society must be established. There are many ways that this can be accomplished, depending on local circumstances. However, having patient representatives present during the deliberations on the local, regional, and national levels is one obvious solution.[46]
5. The community must deal with harassment, humiliation, and intimidation. Structures and procedures must be present to provide safe, anonymous, and easy access for reporting and addressing unacceptable behavior, difficult or unacceptable working conditions, or personal issues.[47] Easy and anonymous access to mental health services provided without stigma is paramount.[42,47,48]
6. Steps must be taken to ensure that the community of practice is welcoming to all irrespective of gender, race, nationality, socioeconomic status, sexual orientation, or other socioeconomic factors.[21,33,34] The message should be sent that the community cares and that it will take action in support of all of its individual members.
7. The community should develop and maintain activities to enhance a sense of belonging. The use of mentors, role models, coaches, or any other formal pairing with peers has been shown to be extremely effective,[10,11,40] as their presence represents a tangible indication of institutional support as well as providing the personal connection that is so important in supporting a sense of belonging.

   The establishment of formal or informal group learning activities as well as sports or communal cultural activities offer a local means of maintaining connections as do frequent social gatherings—five o'clock tea, Friday end of the week gatherings, departmental dinners or retreats. Any organized activity that brings individual community members together on a regular basis will be beneficial for the community.
8. Attention should be given to the physical facilities within an institution that tend to bring members of the community together. Historically doctor's lounges and din-

ing rooms contributed to a sense of belonging, but they have largely disappeared.[49] Consideration should be given to constructing common facilities that will accomplish this objective. In contemporary terms, daycare is certainly a possibility as are the resting or nap rooms that exist in many institutions.[50]

9. Social media should be mobilized to assist in promoting resilience and preventing burnout. Historically, the literature on social media in medicine was largely negative, stressing the frequency of breaches in confidentiality and the projection of unprofessional conduct.[51] However, this has changed and the recent literature is more positive.[52] Individuals need to have the opportunity to establish and maintain contact with other members of their communities and with the organizational structures of those communities. Social media constitutes a potentially powerful tool for maintaining contact with individuals, particularly those at risk, and should be purposely used as such.[52,53]
10. Burnout and resilience must be the subject of discussion within the community so that all members are aware of the importance of supporting their colleagues, not only during stressful times, but on a daily basis.

A Responsibility to Connect

The emotional well-being of medical students, residents, and practicing physicians is a major issue that has emerged as a result of many factors, the most significant of which are the emergence of changes in the role of the physician in a complex health care system, and changing expectations of recent generations of medical graduates. This has resulted in a loss of sense of community felt by many, an issue that has been identified as one of the causes of burnout. It is proposed that the concept of community of practice be used around which activities designed to both increase the resilience of practitioners and diminish burnout be organized.

The Charter on Physician Well-being states, "Meaningful work, strong relationships with patients, positive team structures, and social connection at work are important factors for physician well-being….. Medical organizations, regulatory groups, and individual physicians share a responsibility to support these needs."[54] The Charter designates the leaders of medicine's community of practice as having an obligation to ensure that medical students, residents, and practicing physicians come to believe that they are fully supported by both the leadership and by fellow members of the community to which they belong.

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Reflections on Best Practices for Addressing Burnout and Resilience in Our Profession

Richard L. Byyny, MD, FACP

> I hope other leaders in academic medicine will join me in sharing their experiences. It is essential for people in our community to hear that by seeking help many of us who once suffered were able to survive and thrive. If you have had such experiences, please be open about them. Show others that seeking help is not a weakness, but rather a form of life-sustaining strength.
>
> – David J. Skorton, MD (AΩA, Northwestern University Feinberg School of Medicine, 2020, Alumnus)[1]

A founding and core principle of AΩA is professionalism, which remains an important criterion for membership and an organizational value. A few decades ago, medical professionalism became an important issue in medicine and medical education. Observations and studies have revealed that the profound and rapid advances in medical knowledge, technology, and specialized skills and expertise have inadvertently resulted in a loss of professional core values. Social changes have altered the relationship between the doctor and patient, and the profession's contract with society.

Physicians, academicians, and professional organizations have proposed a renewed commitment to restore professionalism to medicine. Professional organizations and leaders in medicine have defined the fundamental principles of medical professionalism and have developed a set of professional responsibilities.

In late-January 2019, AΩA, with a grant from the Josiah Macy Jr. Foundation, produced its third biennial professionalism conference that brought together a community of practitioners, educators, and leaders in medicine to discuss and develop best practices for addressing burnout and resilience in our profession. The group convened to learn, debate, and develop learning methods for current and future physicians to recognize, appreciate, and practice caring for patients as a unique form of professional human activity.

There was consensus among the groups that medicine in the 21st century will need to be based on the moral foundations of professionalization and professionalism in the care of the sick. This will require trust in a physician's competence, character, and the provision of care in the patient's interests—not the physician's, or their organization's.

The responsibility of medical educators is to teach the next generation, and ensure that the primacy of the welfare of patients is foremost, and will be preserved based on moral status and integrity.

Medicine must continue as a moral and responsible profession.

Forward Thinking

At the conclusion of the 2019 three-day conference, the group of distinguished physicians and educators developed a forward-thinking list of best practices to share for the betterment of the medical profession and as a response to the risk of burnout and importance of resilience in the face of change and stress throughout the medical profession.

They reflected on the fundamental principles of the Physician Charter—the primacy of patient welfare, patient autonomy, social justice, and the professional commitments of physicians and health care professionals in the modern era.

There was discussion on medicine's professional responsibilities around:

- Professional competence;
- Honesty with patients;
- Patient confidentiality;
- Maintaining appropriate relations with patients;
- Improving quality of care;
- Improving access to care;
- Just distribution of finite resources;
- Scientific knowledge;
- Professional responsibility;
- Electronic health records;
- Cultural influences;
- Physician and student well-being;
- Professional identity development;
- Organizational behaviors; and
- Communities of practice.

Although most schools have curricula related to professional values, what students learn and retain can often be from the "hidden curriculum"—the day-to-day experiences of students working in the clinical environment while watching, listening, and emulating resident and physician behaviors. Fortunately, many schools and teaching hospitals have implemented curricula to improve medical professionalism, and some have attempted to develop methods of evaluating aspects of professionalism and associated burnout. The most effective programs lead by changing the entire culture and environment to one that respects and rewards professional behavior, and to diminish the negative impact of the hidden curriculum.

However, we shouldn't presume that professional core values in medicine are intuitively apparent. There is ongoing debate about the importance and value of a physician's oath or solemn promise. There must be clear professional expectations that are explicit for all physicians, and a commitment for physicians to respect and uphold a code of professional values and behaviors.

Efforts in medical professionalism continue to be an ongoing and challenging work in progress.

The centuries old model of professionalism is associated with virtues and ethics. A good physician is a person of character who is able to apply ethical principles, curb self-interest, demonstrate the virtues of compassion and respect, and be humanistic, trustworthy, and caring.

In the past decade, a new model appeared: professional identity formation. This approach, developed in reaction to concerns about the reductionist behavioral model, described the progressive incorporation of the values and aspirations of the profession into the identity of a physician – healer and medical professional worthy to join a community of practice.

The good physician takes on the identity of a community of practice, and is socialized into the values, aspirations, and behaviors of the field. Professionalism can be viewed as a matter of character, humanism, and ethical reasoning, which is inspiring to learners and practitioners.

Professionalism can also be seen as adoption of appropriate behaviors, and demonstration of an area of competence, which tightly aligns instruction and assessment. Professionalism can be viewed as a process of being and becoming—of taking on the identity of a professional, which is also inspiring, and encourages self-reflection.

A Moral Conflict

Today, physicians, nurses, social workers, clergy and other care providers are struggling with the moral conflict of their oath to do no harm, care for all, and remain true to their ethics and personal commitments. "Moral injury," is the emotional, physical, and spiritual harm that many feel is being inflicted and conflicted by an organizational culture that places business and monetary gain above the health and well-being of patients, physicians, and other health care professionals. Physicians, and others, are frequently being asked to perpetrate, or are failing to prevent, acts that contravene deeply-held moral beliefs, patient expectations, and their oath to care.[2] Physicians only have to think about "the work arounds" that occur everyday in order to provide the care patients need, and how many times "doing the right thing" is prevented and obstructed by the organization and the health care system.

Physicians know how best to care for their patients but are being blocked by systemic barriers of the businessification and commercialization of health care. Physicians are having to grapple with what many consider barriers to care—insurance preauthorization, burdensome patient referral paperwork, the tribulations of the electronic health record (EHR), and the health care system priority of speed and money. Many hospitals across the country are foregoing urgent care and driving ill patients to the emergency department (ED), thereby increasing ED patient visits by more than 20,000 per year, which coincidentally increases revenues. This is being done without additional funding for the ED, or an increase in the number

of attending physicians or residents. It is being done to grow business and increase revenue and profit with RVUs and facility charges rather than considering what is best for patients and health care providers.

Moral injury and the business of medicine are two primary influences that lead to burnout. In 2019, a Medscape report on suicide among physicians found that four in 10 physicians reported feelings of burnout, and that the physician suicide rate is more than double that of the general population.[3] The commercialization of the health care system is causing epidemic proportions of burnout among physicians.

Best Practices

An outcome of the 2019 AΩA Professionalism Conference is this monograph and a compilation of best practices to help address burnout and resilience in our profession. It is the hope of all of the conference attendees and participants that the following list will improve well-being, save lives, and restore the medical profession to one where physicians are respected, valued, appreciated, and provided the time, work environment, and support and systems to care for their patients as well as themselves and their families.

Best practice recommendations are:

- The values that are not medical professional values, and are created by today's monetary-driven health care system, are creating professionalism problems for physicians and health care providers. We need to recognize that bureaucratic and market forces are going to continue to battle for the hearts, minds, and clinical practice of 21st century professionals. This isn't about saving the world for professionals, this is about saving health care for patients and the public. In a world where the mission is increasingly defined by margins and profits, we must rely on each other, advocate and lead in the care of patients, and understand, develop, and practice our coping mechanisms for resilience.
- A strong sense of community has been shown as a key factor in resilience. We must take a strong stance in reducing the stigma around seeking help for mental illness. We must lead, advocate, and coordinate efforts throughout the health care community to generate momentum and collective action to accelerate progress in mitigating burnout and augmenting resilience. We must remember that physicians, like their patients, are only human, and that it is in our best interest and that of our patients to bring our collective ingenuity and resources to bear on the problem of clinician burnout. Resources needed include a resurgence of leaders and involved physicians in reestablishing medicine's community of practice.
- Many forces, including regulatory and economic ones, have eroded physicians' and patients' health. We must return to focusing on values, listening,

reflecting, and be willing to take some risks. We must speak truth to power, through common goals of vitality and excellence in life and work.

- Physicians want to be healers and helpers of people, but need systems and tools to aid them in doing this professionally and in a timely manner. The operability of the electronic health record (EHR) must advance similar to other technologies. It must be focused on the care of patients, integrate the importance of excellent doctor-patient relationships and care. It cannot be developed for and focused solely on the most cost-effective ways of increasing billing, collections, and revenue. We must work together in a mutually respectful and collaborative environment to improve the EHR, and we must maintain and value our physicians and other health care team members.
- Chief wellness officers and analogous new organizational layers need to act as formidable change agents within an organization's leadership structure. They need to work with their teams, and organizations, and cannot function merely as organizational apologists. They must remember that the institutional issues contributing to burnout include high workloads, long hours, frequent periods of being on-call, unsatisfactory work-life balance, impersonal health care systems, being undervalued, administrative burdens and barriers, system dysfunction, tasks that distract from the care of the patient, and regulatory and legal issues.

  Those seeking to address resilience and burnout at all levels of medicine must examine both the institutional and personal factors that impact individuals through the lens of communities of practice within the organization, including departments, specialty and subspecialty practices, clinics, wards, and the myriad other areas in which medical professionals work.

  Organized medicine must devote more attention to its slide into deprofessionalization and proletarianization in order for any wellness, resilience, or burnout mitigation strategies to make any type of lasting difference.
- We need to appreciate diversity of identity and experience and be aware of power and privilege. We must consider the unique burdens of students, trainees, and professionals, including racism and ableism. We must learn about, and from each other, and be a source of inspiration for all.
- We need to recognize that encouraging and praising resilience can be fracturing if resilience is being encouraged by leaders from the top down. Partnership, effort, and deep caring from leadership to address and remediate the organizational dysfunction and lack of support is required for resilience.

  However, even the most resilient individual can experience burnout if the stresses in their personal and professional lives exceed their capacity. Susceptibility varies throughout life depending on personal and professional circumstances. Educational interventions can enhance an individual's resilience.
- Developing a culture of well-being is a journey for organizations, professions, and professionals alike. We need to recognize the good things about our culture and use them to help us change the things that need changing, recogniz-

ing that we are at a place where survival anxiety is present and will help us make progress. For the health and well-being of all, health care organizations must have a culture that is focused on its most important assets—its health care providers and their patients.

- Medical educators should serve as positive role models speaking openly about the ways that they attend to their own wellness. They should ask students directly about what they enjoy and feel proud of, and provide as much positive endorsement of these activities as is provided about their research, presentations, awards, and other professional and personal activities and responsibilities.
- As medical educators we should be mindful of expectations of learners, encouraging them to recognize and utilize professional role modes. We should encourage learners not to just follow in our footsteps, but to create their own career path that maintains personal wellness as a requisite underpinning to providing the best care for all their future patients.
- As leaders we must recognize the overt and hidden costs of burnout. There is a strong business case to be made for an investment in strategies and resources to combat it. Physicians are allies in the fight against burnout and have the resources to help systems recognize and address it. However, in order to do this, physicians must have a seat at the table. It is said that it takes a village to raise a child, and it will take an entire profession's commitment and organizational resources to address the institutional and system factors that contribute to burnout.
- Medical educators must move toward assessing not just the presence of symptoms of depression and/or burnout in students, but also the presence of well-being. Medical students need to see themselves as solvers of problems, rather than victims. Medical students need to be imbedded in a positive learning environment that includes them as active participants.
- We must educate students and faculty to accept that asking for help is a positive step in the right direction. We must remove the fear of stigma and bias, and create an atmosphere of well-being for students, residents, and faculty alike.
- Changing established medical organizations and/or modifying their behavior and culture is a daunting task. A deep understanding of individual and organizational dynamics is essential, along with an in-depth knowledge of the institution's strengths, and weaknesses. This can be accomplished by embracing a high degree of emotional intelligence, a generalist's appreciation for all aspects of the organization, and the ability to bask in the reflected glow of others.
- Burnout cannot be addressed in isolation. There needs to be a shift in thinking to address its root causes. Reducing burnout among health care professionals can lead to a more inclusive, productive workplace, more compassionate care, increased patient satisfaction, and advance health equity. It is the duty of physicians, trainees, staff, and students to challenge the historical traditions of medicine and speak up about contributors to burnout, both professionally and personally.

- All activities directed at resilience and burnout, including the many that are already in place, must be organized around the concept of communities of practice, emphasizing the community's commitment to the individual, team, and the care of patients and colleagues. The well-being of any community of practice is closely linked to the quality, commitment, and effectiveness of the leadership of the community. Steps must be taken to ensure that the community of practice is welcoming to all irrespective of gender, race, nationality, socioeconomic status, sexual orientation, or other characteristics. Burnout and resilience must be the subject of discussion within the community so that all members are aware of the importance of supporting colleagues, not only during stressful times, but on a daily basis.

The Charter on Physician Well-Being states, "Meaningful work, strong relationships with patients, positive team structures, and social connection at work are important factors for physician well-being…Medical organizations, regulatory groups, and individual physicians share a responsibility to support these needs."[4] Leaders of medicine's communities of practice have an obligation to support through leadership and colleageality the communities to which they belong. Bureaucratic and market forces will continue to battle for the hearts and minds of 21st century professionals essentially unopposed by the ethos, ethics, and practice of professionalism, if there is no change and commitment. In the end, none of this is about saving the world for professionals, rather it is about saving physicians and health care for patients and the public in a world where mission increasingly is defined in terms of margins, and where standardization will deliver inappropriate care to both ends of any illness distribution.

It is clear that we need strong physician leadership at this critical period in medicine and health care. We need our colleagues to step up and utilize their experience and learning ability to become involved as leaders in this important endeavor and to advocate for change that will improve the care of patients and the health of our nation.

AΩA will continue its commitment to medical professionalism. It is our hope that this monograph will be used to educate on, and promote, best practices in medical professionalism thereby addressing burnout and resilience in our profession.

"Be worthy to serve the suffering."

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