Mental Health from Medical School to Medical Practice: Finding a Path Forward

by Stuart Slavin, MD, MEd

As individuals cultivate skills to promote their own satisfaction and well-being, efforts must also be made to improve the clinical and learning environment.

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Abstract

Medical students, residents, and practicing physicians experience high burnout, depression, and suicide rates, and the COVID-19 pandemic has exacerbated stress for many.[1-6] While laudable, current well-being efforts appear insufficient to meet the challenges that so many are facing. This essay explores approaches that individuals and organizations can take to promote mental health and well-being from medical school to practice.

Introduction

Medical student, resident, and physician mental health has been the focus of growing concern in recent years as it becomes increasingly clear that burnout, depression, and suicide are serious problems.[1-4] Mental health challenges from the COVID-19 pandemic have added new stressors—professional, personal, and financial—for many.[5,6] Uncertainty—often a primary source of anxiety—has never been greater for so many of us. While significant numbers of medical schools and medical centers have ramped up their mental health services in recent months, these are not likely to meet the mental health needs of trainees and physicians in the face of widespread, unprecedented levels of stress and traumatic exposure in the healthcare setting. Using a *treatment* model, rather than a *preventative* model, to meet the mental health needs of physicians was not sufficient pre-COVID as burnout and depression rates remain stubbornly elevated—and it will not be sufficient in the midst, and aftermath, of this pandemic.

A Path Forward

A number of foundational principles can inform approaches to a looming mental health crisis for physicians and trainees. First, we tend to conceive of well-being and mental health as binary—you are depressed or you are not; you are burned out or you are not. This is not accurate, and not particularly functional, because these conditions all exist along a continuum. Second, well-being may not be the best primary goal for our efforts. Instead, a more reasonable goal may be to increase satisfaction with your work, your life, and, for some, yourself. The goal should then be to help people move up the continuum no matter where they are, so that if you are fairly satisfied, perhaps you can become very satisfied; and, if you are extremely dissatisfied perhaps you

can become moderately dissatisfied. This, for many, will feel more attainable than reaching some magical state of well-being. Our focus cannot only be on those who meet a clinical diagnosis of depression or anxiety, or those who meet criteria for burnout; our approach must target those from across the continuum. Third, it's important to note that encouraging physicians to work on their resilience comes with risks. Many physicians feel they are very resilient, and rightly so.[7] They tolerate enormous demands and pressures, working heavy hours, and they show up to work, take care of their patients, and complete their charting. While this is true, this is only one kind of resilience, what I term survival resilience. But there is also another form of resilience which is a thriving resilience, and this also exists along a continuum. What is exciting is that there are easily teachable, learnable skills that anyone can use to cultivate this latter form of resilience. Fourth, because many physicians have limited time to learn and practice time-consuming well-being practices, the tools we offer to support physician mental health and well-being may have greater impact as they require little time to use and learn. Still, this is largely an environmental health problem, rather than an individual one.[5] Finally, while this piece focuses largely on individual strategies, it does not remove the obligation to work to improve clinical and learning environments. And while environmental factors are the main drivers of distress,[8] individual mindsets and patterns of thinking commonly found in physicians can contribute substantially to personal distress and mental illness. We need to help physicians and trainees develop skills to recognize and address these damaging mindsets and patterns of thinking.

Mindsets and Thought Patterns

Common physician mindsets that contribute to distress can be categorized into three main clusters. These mindsets often have been acquired on the long and arduous path to becoming a physician, and people should feel no shame or guilt if they have them. Like well-being, they exist along a continuum that is fluid and subject to change with circumstances and environment. These mindsets are not always dysfunctional in moderation, and they even may have contributed to many physicians' success along their academic paths. Cognitive psychologists have documented many of these mindsets in terms of automatic thoughts and cognitive distortions.[9]

The first cluster of mindsets is the largest, and it consists of mindsets that are characterized by a self-critical voice.

Performance as identity: the tendency to view your performance—whether academic in school, or professional as a physician—as your identity and worthiness. If you make an error, the thought process is often, "I'm a bad doctor and a bad person," rather than "I made an error."

Maladaptive perfectionism: a condition where you set the bar so unattainably high for yourself that you are repeatedly disappointed in yourself. The key here is disappointment in *yourself*, not just in your performance.

Impostor phenomenon: the feeling that you are incompetent, that you are a fraud, and it is only a matter of time before other people discover this.

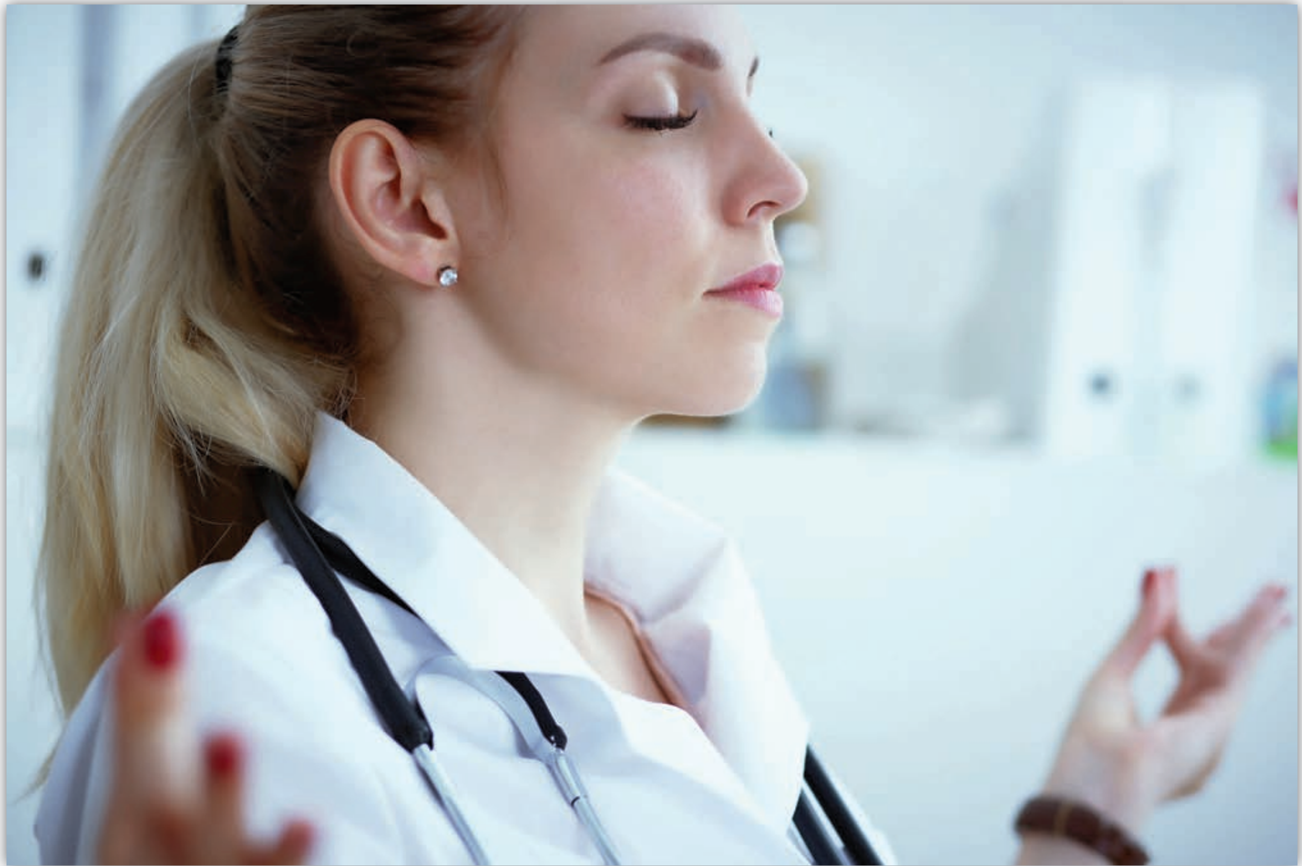
Personalization and self-blame: the tendency to place complete blame on yourself when things don't go well.

Feelings of guilt and shame: Thoughts of imperfection and self-blame can contribute to self-critical thoughts and feelings of guilt and shame, often adding substantially to personal distress.

Hiding vulnerability and distress: many physicians and trainees tend to hide their distress which can then create the impression that others are doing fine. This can lead to individuals' belief that they are the only ones struggling.

The second cluster of mindsets is characterized by negative mood or affect—cynicism, negativity, and pessimism—that are understandable given the professional and emotional challenges in medicine. While understandable, these mindsets can fuel personal dissatisfaction and diminish well-being both in the workplace and at home.

The final cluster consists of two miscellaneous, but critically important, mindsets and thinking patterns. The first is having a fixed mindset rather than a growth mindset. Fixed mindsets have been associated most typically with cognitive ability[10]—namely, holding narratives such as "I'm not good at



Meditation can reduce limbic system activation.

math"—but the same mindset presents around skills like resilience, and this can inhibit personal growth. If a person has a fixed mindset around their own personal resilience, they will be less likely to become more resilient. The other problematic pattern of thinking involves automatic thoughts and cognitive distortions that can activate other mindsets.

These mindsets are common in medical students, residents, and physicians and can contribute to both personal distress and mental illness. A study that I led of first-year medical students found that those who screened positive for maladaptive perfectionism or impostor phenomenon were more likely to have feelings of inadequacy, embarrassment, or shame about their academic performance.[12] Those who experienced these latter feelings were significantly more likely to screen positive for depression and anxiety. The good news though is that *every one of these mindsets is changeable* through the cultivation of simple techniques of metacognition and mindful awareness.

Metacognition

Metacognition is simply the ability to examine your thoughts and to change to be more accurate and beneficial to your mental health. The most important metacognitive skill is cognitive reframing, the basis for Cognitive Behavioral Therapy (CBT). CBT is the preferred treatment for anxiety disorder and panic attacks, helpful for depression, and useful for addressing maladaptive perfectionism and/or impostor phenomenon. Unfortunately, we usually don't teach these skills until someone has already developed clinical depression or anxiety and seeks support from a therapist. The key to preventative mental health care is learning these skills *before* many mindsets, cognitive distortions, or emotions culminate in mental illness.

Cognitive Reframing

We tend to go through life thinking that an adverse event equals an adverse outcome—meaning that if something bad happens, that is the personal

outcome as well. This is not true; it is an adverse event *plus* your cognitive/emotional reaction that equals the outcome.[13] We all suffer from distorted reactions or automatic thoughts that can contribute to distress, but there are concrete steps we can take to gently reframe them. Following are some of the most common automatic thoughts:

Magnification: taking a relatively small event and blowing it up into a much bigger problem.

All or none thinking: either getting the result you wanted or feeling like a failure.

Tunnel vision: focusing on one negative event and ignoring or discounting the many positive ones.

Overgeneralization: seeing a negative event as part of a pattern of bad things that always happen to you.

Fortune-telling: predicting a future outcome with certainty.

Mind-reading: feeling like you know with certainty what another person is thinking. For example, when a colleague passes in the hallway and looks up and frowns, we create narratives that we must have done something to offend the person and they are angry at us.

"Should" statements: second-guessing yourself when the outcome isn't ideal by thinking "I should have done this; I should have done that."

Albert Ellis, one of the fathers of cognitive-behavioral therapies, introduced many helpful concepts for challenging these types of thinking.[14] Cognitive reframing, also known as cognitive restructuring, consists of three steps. First is to simply *notice* your thoughts. This requires having some skill in mindful awareness, which I will outline next. Second is to *label* the thought—whether a mindset or a cognitive distortion—to recognize that you are, for example, magnifying, or are thinking in perfectionistic terms. The third step is to try to *dispute* the thought distortions. There are many options for disputing strategies, but the following two are particularly easy to understand and to use. The first is to simply examine the evidence there is to support the thought, and the evidence there is against it. For example, some medical students who perform poorly on an exam can feel "stupid." The evidence that they are low in intelligence is non-existent; they are in medical school, and there are a whole host of reasons why someone would not perform well on an exam. The second approach, called the double standard, is one that I find particularly illuminating and helpful. Here is an example. Let's say a colleague comes up to you and says, "I feel terrible, I didn't know the answer when I was asked a simple clinical question by my boss today." Would you say to them? "Well, you're stupid. You're not cut out to be a doctor." Of course not (or at least I hope not!). The goal in countering the double standard is to extend the same compassion you have toward other people to yourself.

Metacognition can also help in managing future oriented worries, fears, and anxieties. A common and understandable worry and fear that clinicians may have in the midst of the pandemic is that they may get ill, or that they may bring COVID-19 home to their spouse, children, and/or other family members and that they could get sick and die. These are completely understandable fears to have, and they may feel terrifying or even debilitating.[13] The question is not how to completely eliminate or suppress these feelings, but rather how to manage these thoughts to decrease distress. One way of framing: yes, that reality that is possible, but how likely are certain outcomes? Even though you may face a relatively high risk of getting the infection, it is very likely that you will recover.[13] Those less than 60 years of age without underlying medical conditions appear to have a mortality rate below 1%, with child mortality rates even lower. Therefore, even if you or they become infected, the great, great likelihood is that you will recover and your family members will too. In addition to managing these understandable fears, you also can move to the strategic. What can you control? Do everything you can to reduce the risk that you and your family members will get infected. Be vigilant about protecting yourself. Change of clothes, a serious hand wash before you leave the hospital, hand wash when you get home, and continued social distancing outside the home are things within your control. Optimizing sleep, nutrition, and exercise can boost your immune system and decrease the likelihood of an adverse outcome from COVID-19 should you become infected. A key principle here is that the goal is not

to *eliminate* thoughts and worries. Rather, it's to hold them gently—to work with them so they will cause you less suffering and harm.[13]

Mindful Awareness

The second essential skill to develop is mindful awareness. One needs to be sufficiently present and aware to notice thoughts and feelings in order to be able to work with them. The classical approach to becoming more mindful has been meditation, and numerous courses and apps are available for this. Meditation works, but in my experience relatively few physicians are willing or able to incorporate regular formal meditation practices in their lives. I have given talks to audiences across the country and have asked physicians to raise their hands if they have a meditation practice of 15 minutes or more a day. I have never seen more than 3% raise their hands even in places like California where meditation may be more in mainstream consciousness. Meditation works but if many are not likely to practice it due to time and effort, it may not be an optimal public health intervention for physicians unless we change the structural demands on their time. The good news is that you can become significantly more mindful (moving up a mindfulness continuum) through informal practices that take little or no time to employ. There are a number of informal mindful practices, but a simple one is to just focus on one of your senses (auditory, smell, touch, or sight) for just 30 to 45 seconds. As thoughts appear, just notice them and return your attention to the sense you were focusing on. This can be used as you are walking from one place to another, when washing your hands before seeing a patient, or in a myriad of other activities.

Reducing Limbic System Activation

During the COVID pandemic, the skill of reducing a sense of alarm and overall limbic system activation is essential. A self-calming technique that has been proven effective in the military is called tactical breathing.[15] Here's how it works:

Relax yourself by taking four breaths as follows. If you want, try to visualize each number as you count. Breathe in counting 1, 2, 3, 4. Stop and hold your breath counting 1, 2, 3, 4. Exhale counting 1, 2, 3, 4. Repeat the breathing cycle.[13]

You can practice this as many times a day as you would like, for just a minute or so. Then, when you are feeling acute stress, you can do it—even for a few breath cycles—to calm your amygdala. To reduce activation of your limbic system, be mindful of excessive caffeine consumption, as well as excessive consumption of news and social media. A study after the Boston Marathon bombing found that those who had heavy consumption of media in the week following the bombing led to higher acute stress levels than those who witnessed the bombing in person.[13,16]

Other Tools in a Resilience Toolbox

Metacognition and mindfulness are essential skills in finding greater satisfaction with work, with life, and with the self, but there are other skills that can also be helpful in this quest. I view these as forming a toolbox, and you can choose tools that you feel that you need most. The tools include the following strategies: combating negativity bias and pessimism, cultivating positive emotions, emotional self-regulation, dealing with difficult people, investing in well-being, avoiding learned helplessness, cultivating a sense of generosity and gratitude, and finding meaning and purpose in life.

The key with the toolbox approach is its adaptability; some tools may be helpful for you, while others may not be—and you can tailor your toolbox to fit your own specific needs. I do not use all of the tools listed here, but some have changed my life in recent years in ways I did not think was possible. You can find more about the toolbox in a series of four podcasts produced by the ACGME at https://www.acgme.org/What-We-Do/Initiatives/Physician-Well-Being/AWARE-Well-Being-Resources, and on Spotify and other podcast platforms by searching ACGME AWARE.

Changing the Clinical and Learning Environment

As individuals cultivate skills to promote their own satisfaction and well-being, efforts must also be made to improve the clinical and learning environment. In 2009, Saint Louis University School of Medicine embarked on a series of simple changes designed to reduce pressure on students—reducing class time and curricular content, freeing time for elective opportunities, and changing to pass-

fail grading—that led to decreases in depression and anxiety of more than 80% in pre-clerkship students.[17, 18] The clinical environment is more challenging to change, but conceptual frameworks from organizational psychology can guide action. A helpful model for this merges the concepts from work by Christina Maslach and Daniel Pink, and includes eight main drivers of burnout in health care.[19,20] They include the following:

Workload: not just how much, but the qualities and characteristics of it.

Rewards: not just financial, but whether and to what extent a person feels appreciated and valued.

Control: transparency in decision-making and feeling like your voice matters.

Community: sense of connection to others at work.

Fairness: whether people are treated with fairness and equity.

Values: whether the organization acts consistently with the values it states.

Mastery: if effective and regular feedback on performance is given.

Meaning: if people in the organization feel a sense of meaning and purpose.

Conclusion

I have ended virtually all of my talks in the last two years with a quote from Viktor Frankl, and I will end this commentary in the same way. Frankl, the noted psychiatrist, author, and Holocaust survivor wrote, "There is nothing in the world, I venture to say, that would so effectively help one to survive even the worst conditions as the knowledge that there is a meaning in one's life. There is much wisdom in the words of Nietzsche: 'He who has a why to live for can bear almost any how.'[21] Physicians, in the midst of the challenges in medicine, need to find that why, feel that why, and be sustained by that why. But we also have to remember that we can and must work to change the how.

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None reported.

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