Cultivating Resilience and Preventing Burnout: A Mindful Multipronged Intervention Approach

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Introduction

Exceedingly high rates of burnout in healthcare professionals across each discipline serve as testament to this unfortunate state of affairs [1]. For oncologists specifically, the global incidence of burnout has increased drastically over the past decade in the United States, Europe, and Australia [2–4]. While adverse mental states related to clinical work is not a new concept and was documented even in the time of Hippocrates, the degree to which this is taking place is alarming as noted in previous chapters [5].

There are evidence-based interventions to prevent burnout and relieve the work-related mental health burden experienced by healthcare professionals. However, understanding why interventions are effective, to what extent they work, and for which clinical settings and which clinicians are all open questions. The data guide curious and well-meaning clinicians and organization in certain directions but do not provide clearly delineated, evidence-based pathways for all burnout scenarios. Interventions to address burnout, depression, and other mental health maladies associated with the clinical work of physicians are generally divided into those that address the individual clinician versus those that address the operation of the organization, which of course also affect individual clinicians. The evidence reveals that both are effective. Studies that incorporate both types of interventions (combinatorial studies) are rare but are particularly promising since burnout is essentially a worker-work place mismatch.

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This chapter is divided into Parts 1 and 2. Part 1 will provide a general overview of the evidence for burnout interventions at both levels (individual and organizational). It will highlight interventions for individual clinicians and in particular the use of mindfulness-based stress reduction and cognitive behavioral techniques and how these may be incorporated into the context of organizational strategies to reduce burnout. A review of consensus-based recommendations for organizational initiatives to address burnout can be accessed from Shanafelt and Noseworthy [6]. Part 2 offers an example of an individual treatment plan to prevent or treat burnout in a burned-out clinician that is inspired by the Buddhist perspective of mindfulness. Formal mindfulness training is highly recommended but may require a significant commitment by individual clinicians and organizations. While there is not a substitute that provides the same evidence-based benefit, mindfulness techniques can be incorporated seamlessly into one's clinical practice. Part 2 offers many practical suggestions that can be practiced and incorporated into an individual clinician's day to day routine with significant flexibility based on the needs of the clinician.

Part 1 Restoring the "Tragedy of the Commons"

The tragedy of the commons is an analogy from economics published in 1968 that demonstrates how a shared resource such as a common area or town pasture becomes overused when the self-interest of an individual or single entity is amplified to an entire group acting similarly without regard for replenishing the resource [7]. In this case, the commonly used resource from which individuals and society benefit is physician well-being. The health of a community or a hospital system benefits from the presence of resilient clinicians, but the cultivation of clinician wellness and resilience is undermined by a *dispersion of responsibility for replenishing* this valuable commodity. Patients, hospital corporations, and society benefit from the talents, integrity, discipline, and hard work of those who enter the medical field and cultivate its practice over a lifetime. Without proper nourishment and restocking, this enviable and invaluable resource of clinician well-being, which buttresses professionalism and the integrity of medical practice, can become compromised by the effects of burnout and, most tragically, suicide.

The restoration of physician well-being has become a priority according to many professional societies. The way forward is multifaceted and evolving. Interventions should identify and incorporate root causes for burnout and address workplace environments where the work-worker mismatch takes place. Consensus statements and expert opinion describe how these problems begin insidiously and reinforce the idea that *addressing the root cause* means making systemic changes, creating institutional awareness and a culture around clinician wellness [6]. The vast majority of interventions for individual clinicians focus on symptom reduction rather than addressing root causes of burnout.

Several systematic reviews and meta-analyses provide organized and collective assessments of intervention effectiveness and the strengths and weaknesses of different approaches [8–12]. Overall, efforts to reduce burnout and other clinician

mental health maladies are effective and demonstrate small to moderate effect sizes. Reduction in symptoms may be greater when examining depression/anxiety/distress outcomes and clinicians who were already experiencing mental health dysfunction (e.g., burnout). Subgroup analyses found that burnout interventions may be more effective for practicing physicians over resident physicians and that organizational interventions may offer greater symptom reduction [8, 9]. Also, interventions may demonstrate greater effectiveness for physicians in primary care disciplines rather than subspecialized care. Of the individual interventions, those that use mindfulness-based strategies and cognitive-behavioral techniques offer the most benefit. These meta-analyses, which had slightly varying entry criteria, outcomes, and targeted populations, also highlighted the limitations of applying static interventions across the varied landscape of medical practice.

Specifically, West and colleagues analyzed 15 randomized trials and 37 cohort studies (2914 physicians) that evaluated interventions to prevent and reduce physician burnout [8]. Almost all study endpoints were reduction in burnout using the Maslach Burnout Inventory (MBI). Both individual level and structural or organizational strategies resulted in meaningful reductions in physician burnout, but many studies focused on only one element of burnout (i.e., burnout domain such as emotional exhaustion, depersonalization, personal accomplishment) rather than an overall assessment of burnout. The effects of the interventions were similar between randomized and observational studies although there was considerable variability. Absolute reductions in burnout may seem modest (e.g., a reduction of 1–3 points on the MBI was noted in the meta-analysis by West and colleagues [8]); however, it should be noted that small changes in burnout scores by even 1 point on the MBI are associated with meaningful differences in important adverse outcomes [13]. In addition, clinicians with higher burnout scores in Emotional Exhaustion and Depersonalization had even greater reductions in burnout scores. Half of the randomized studies assessed resident physicians, and the majority involved a combination of small group intervention with duty-hour restrictions, while the cohort studies involved mostly resident duty-hour restrictions.

A meta-analysis of interventions to reduce burnout in physicians conducted by Panagioti and colleagues only evaluated controlled interventions across primary, secondary, and intensive care physician practices (1550 physicians) looking at Emotional Exhaustion (EE) of the MBI [10]. Of the 20 interventions, 12 were individual based (MBSR, educational, communication skills, education) and 8 were organizational (workload rescheduling or more extensively changed workflow), 10 were in sub-specialized care disciplines and 12 were with "experienced" physicians only (not in training). Overall, they found a small but significant reduction in burnout (SMD = −.29) with EE scores decreasing from 17.9 (SD 9.0) to 15.1 (8.5). Interventions directed at the organizational level were more effective than physician-directed interventions (SMD = −0.45 versus −0.18). The difference was larger in "experienced" non-trainee physicians and in primary healthcare settings but was not statistically significant.

Petrie and colleagues analyzed eight intervention studies that evaluated changes in distress, anxiety, depression, and suicidal ideation in 1023 physicians [9]. They

noted a lack of controlled studies at the organizational level, and only a few well-controlled intervention trials were directed toward practicing physicians as opposed to physician in training. Interventions consisted of variations of cognitive behavioral therapy (CBT) and mindfulness and organizational changes (e.g., protected time). The time commitments to the intervention varied significantly from 90 minute in-person weekly group sessions over 16 weeks to receiving a letter of tailored feedback after filling out an assessment entitled "self, relationship, and work" [14, 15]. A priori subgroup analyses found that group interventions were more efficacious than individual interventions (SMD 0.78 versus 0.39, respectively). Interventions that were classified as CBT or mindfulness-based were more efficacious than a composite of "other" interventions (SMD 0.79 versus 0.46, respectively). They found no difference based on type of control used and no significant heterogeneity or bias. Some notable future directions included decreasing burden of documentation, clarification and guidance of administrative tasks, replacing licensing board questions with questions of functionality rather than diagnosis, encouraging a participatory management style with physicians, and instilling a professional ethos of self-care.

Melnyk and colleagues evaluated 29 studies that aimed to improve mental health, well-being, physical health, and lifestyle behaviors of physicians and nurses but found that the wide array of outcome measures precluded quantitative pooling and a meta-analysis [12]. Of note, this review also included studies evaluating outcomes in nurses. They found that mindfulness and CBT-based interventions were effective in reducing stress, anxiety, and depression. They highlighted studies that incorporated deep breathing techniques, gratitude practices, and interventions to increase physical activities (e.g., pedometers, visual triggers, health coaching with texting).

These systematic reviews found that interventions that incorporate mindfulness-based stress reduction (MBSR) are particularly efficacious on the individual level and are also effective for reducing compassion fatigue [16]. Mindfulness can be defined as "paying attention in a particular way on purpose, in the present moment and non-judgmentally" [17]. A mindful clinician could be described as one who "attends in a nonjudgmental way, to his or her own physical and mental processes during ordinary everyday tasks to act with clarity and insight" [18]. The appeal of mindfulness in clinical practice is that it allows clinicians to "listen attentively to patients' distress, recognize their own errors, refine their technical skills, make evidence-based decisions, and clarify their values so that they can act with compassion, technical competence, presence, and insight." However, authenticity and honesty with oneself are required for sustaining mindfully oriented clinical practice, which is quickly undermined when coupled with an overly demanding or inefficient workplace. Variations of cognitive behavioral therapy also help create self-awareness and limit self-sabotaging behavioral patterns and harmful automatic beliefs. While these interventions are effective for individual clinicians, organizational interventions that alter the structure of practice in some way may be more durable and efficacious. The most common types of organizational interventions are work-hour

restrictions (e.g., for resident physicians in training) but may include the cultivation of workplace relationships, changes in call schedules, or providing group accountability for alleviating burnout.

Importance of Leadership

In addition, hospital and clinical leadership is an integral component to instituting sustainable changes that may ameliorate burnout or enhance clinician competence [6]. For example, the American College of Physicians has introduced mandates to increase meaningful practice and reduce administrative work (e.g., use of scribes) [19]. Also, the American Medical Association instituted "Back to Bedside," which is a program designed to encourage bedside teaching and rounds, thus providing meaningful clinical experiences for attending physician who are charged with teaching and for the trainees to experience meaningful patient interactions. This initiative stems from the fact that loss of patient interaction has been associated with burnout [20]. Leadership to reduce burnout is housed in the "quadruple aim" that includes physician wellness as one of the goals of healthcare organizations [21]. A salient example rests in a study of primary care physicians on the west coast of the United States where leadership decided to put their physician groups in charge of not only monitoring their own burnout but creating and implementing their own interventions based on their own needs to ameliorate and prevent burnout [22]. This intervention was highly effective. The importance of leadership in this area has been recognized by institutions that have hired directors of clinician wellness or thought leaders with other titles who are responsible for monitoring and improving clinician wellness by collaborating at the leadership level. These initiatives speak to the need for change in organizational culture around clinician wellness and well-being.

Addressing Burnout in Oncology

In oncology specifically, it is important to focus on the unique stressors for oncology clinicians in addition to the stressors that are causing burnout and depression in medicine in general. Given the interpersonal demands of working in oncology, communication skills training is effective for oncology professionals to both enhance communication with patients and have a positive effect on physician well-being [23]. However, it is not clear if these results are sustained over time. Some researchers have found a parallel between oncology physicians and military personnel where suicides are also elevated [24]. Programs that highlight *creative (*i.e.*, artistic) outlets* are effective for soldiers and could be highly relevant for oncologists whose work environment is particularly stress laden with high levels of mortality salience. In addition, difficult patient conferences (e.g., Schwartz Rounds) and meetings for oncologists (e.g., "Balint groups") and even art therapy for staff on oncology units have been found to be specifically effective [25, 26].

Considering the Many Causes of Burnout and Related Concepts (e.g., Resilience)

Studies have also noted many possible directions that may include decreasing the burden of documentation, clarification, and guidance of administrative tasks, replacing licensing board questions with questions of functionality rather than mental health diagnosis, encouraging a participatory management style with physicians, focusing on long-term viability and focus, and instilling a professional responsibility to care for the self by replenishing meaning, focus, and attention toward clinical care. The type and level of intervention may depend heavily on the target clinician group, practice setting, and outcome. Several outcomes have been mentioned in addition to burnout. These may include compassion fatigue, depression, suicide, empathy, medical errors, and resilience. These outcomes are defined and described in Table 12.1. While there is overlap between these outcomes, they are clearly distinct and may differ based on their root causes and the extent to which they are derived from workplace factors.

Of note, resilience, and its cultivation and preservation, has been called upon as an outcome goal that will enhance physician well-being. Interestingly, the related concept of "hardiness" predates the discussion of burnout and was used historically to describe the ability to persevere (e.g., function) despite adversity [27]. It is not tied to workplace necessarily and seems to focus on the individual. The concept evolved into resilience and essentially asks the question: What is it about those other clinicians who do not experience burnout that allows them to function or thrive despite external or internal pressures? [28]. While the cultivation and enhancement of resilience seems like a laudable goal, a meta-analyses from 2020 found that there was not a significant effect on physicians who were already in practice [11].

Table 12.1 Definitions of concepts related to burnout

Concept	Description
Burnout	A syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. Characterized by three dimensions: (1) feelings of energy depletion or exhaustion; (2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and (3) reduced professional efficacy
Mindfulness	A practice of purposely bringing one's attention to experiences occurring in the present moment without judgment. The skill develops through training (e.g., meditation) and is derived from *sati*, a significant element of Buddhist traditions
Mindfulness-based stress reduction (MBSR)	A secular intensive mindfulness training program to assist people with reduction of stress, anxiety, depression, or pain. It is evidence-based and typically taught over 8 weeks. It was developed at the University of Massachusetts Medical Center in the 1970s by professor Jon Kabat-Zinn
Compassion fatigue	May be referred to as secondary traumatic stress (STS). It is characterized by a diminished ability to feel compassion for others along with exhaustion (emotional and physical). It is described as the negative cost of caring
Resilience	The ability to adapt well to circumstances in the face of adversity, trauma, tragedy, threats, or a significant source of stress. Resilience has been described as the ability to "bounce back" and can also stimulate personal growth

Part 2 A Treatment Plan to Address Clinician Stress and Burnout Inspired by a Buddhist Perspective and Approach to Individual Well-Being

Although physicians strive to alleviate the suffering of patients and families, the care of the clinician is frequently neglected, and systems of modern healthcare do little to address clinician-related maladies brought on by the healthcare work environment. While the intervention choice to ameliorate and prevent burnout depends on the clinical setting, many of these desired outcomes overlap (e.g., less burnout or compassion fatigue, greater resilience, empathy, and enhanced well-being). Therefore, one intervention type will inevitably address multiple outcomes to some extent. To date, the data demonstrate that many of the interventions used to prevent or treat burnout broaden the clinician's perspective and help reduce the sympathetic tone of the fight or flight response inherent to stress. In fact, these effects may represent the mechanisms by which these outcomes are obtained (e.g., burnout prevention/reduction, depression treatment). In the current evidence-based literature, mindfulness-based stress reduction and CBT techniques, in addition to organizational interventions, appear to have the greatest and longest-lasting effects.

The mindfulness teachings, which broaden one's perspective and reduce anxiety, are based on centuries-old Buddhist philosophy and approaches to living a fulfilled life. A dedicated program in mindfulness-based stress reduction is highly recommended for all clinicians. However, the time commitment of formal MBSR training may be prohibitive. Therefore, essential elements of requisite self-care are provided in Part 2 with the hope that these concepts will be helpful for all clinicians. A case vignette guides the reader through the individual wellness plan, which involves the following: (1) creating self-awareness; (2) cultivating mindfulness; (3) enhancing fitness and sleep quality; (4) tending to relationships; (5) finding meaning and purpose in the practice of medicine; and (6) optimizing workflow patterns and organizational partnerships and policies that influence physician well-being (Table 12.2).

Table 12.2 Buddhist-inspired interventions used in the case vignette to address burnout

Intervention	Core features
Self-awareness	*Identifying stress triggers and cognitive distortions*
Mindfulness/breathing	*Being present* *Mindful pauses and brief breathing exercises* *Body scan* *Meditation and yoga* *Visualization and guided imagery exercises* *Self-compassion*
Fitness and high-quality sleep	*Work-life balance* *Self-awareness of the negative effects of perfectionism at work* *Learning to say "no"*

(continued)

Table 12.2 (continued)

Intervention	Core features
Relationships	*Work-life balance* *Establishing healthy boundaries* *Quality time with loved ones*
Finding meaning and purpose in life	*Appreciating daily small accomplishments* *Focusing on the big picture*
Organizational approaches	*Engagement activities* *Training programs in self-awareness, mindfulness, and narrative medicine* *Work environment improvements*

Box 1 Case Vignette

Dr. Smith is a mid-career oncologist, and his Monday schedule was terribly busy. He had 20 patients scheduled for his clinic, and he was also involved in the care of three of his patients that were admitted. Several encounters were challenging throughout the day: A patient "Googled" several chemotherapy treatments and asked Dr. Smith to change his chemo regimen according to the suggestions that the patient found on the Internet. Dr. Smith was very frustrated during that encounter. Another patient was a 45-year-old male with metastatic pancreatic cancer, not responding to palliative chemo and with worsening functional status. Dr. Smith had to break the bad news and discuss a hospice referral with the patient and his wife. The meeting was very emotional because the patient had two young children and his family was devastated to hear the news. Dr. Smith was emotionally exhausted after that meeting.

His day was also interrupted due to several calls from the hospitalists caring for his patients who were admitted and were not doing well. He ate a sandwich quickly for lunch because there was no time to eat a proper meal. In the afternoon Dr. Smith got an email from the chairman of his Department of Medicine informing him that his oncology division was not meeting the quality and productivity markers for the quarter and that the institution would be expecting better results for the next cycle. Dr. Smith has had exceptionally low job satisfaction for the past few months, and the quality improvement (QI) pressure has been very upsetting for him. He also received a thank you email from a patient that recently survived breast cancer in which she expressed her gratitude for his services, but he browsed very quickly through the message because he had so many emails to check.

He left the clinic late and missed his son's recital at school, and his wife and son were upset. After he arrived home, he stayed up late completing medical notes and working on a grant proposal which had a deadline later in the week. Dr. Smith had joined a gym earlier in the month but was not going because of his busy schedule. He also has not been in touch with any of his close friends and other family members, and despite having a few friends at work, he has had no recent social interactions with them. Dr. Smith has been experiencing frequent symptoms of burnout for the past several months, including frustration, emotional exhaustion, and a lack of work satisfaction.

Self-Awareness

Awareness of stress-related symptoms and tracking their activation are fundamental. Once the clinician identifies his/her common triggers for stress, they can take steps to de-escalate the stress. Triggers are often unique and vary from person to person and may be related to past events in each person's history combined with their own individual personality traits. Many cognitive behavioral techniques help clinicians with stress reduction [29, 30].

In one of Dr. Smith's encounters, he had to deal with a patient who searched for chemotherapy treatment options on the Internet and then tried to dictate his own treatment. This was a particular trigger for Dr. Smith. He felt insulted and angry when a patient with no medical degree or even familiarity with oncology argued that the Internet-based treatment was more appropriate despite Dr. Smith's extensive training and experience. This trigger was coupled with another trigger later in the day when the Chairman of Medicine's email called out Dr. Smith's practice for not meeting the quality and productivity markers for the cycle. Dr. Smith felt frustrated because he believed that the administration had set unreasonable goals and they were disconnected from the daily challenges that frontline clinicians face. The last trigger, perhaps the last straw, happened when Dr. Smith had to break bad news to a young patient with pancreatic cancer. Dr. Smith had recently lost many young patients due to aggressive cancers, and this was starting to undermine his sense of self-efficacy.

In this case, the patient who wanted to dictate his own treatment set off a stress cycle that was later escalated by additional triggers that were particularly troubling for Dr. Smith based on the perception of ridicule (i.e., the Chairman's email) and recent experiences (i.e., deaths of young patients). Essentially, this was a bad day for Dr. Smith with several triggers at once. The effects of a day like this will depend heavily on his self-awareness into his emotions and why he is feeling a particular way. Once these triggers are identified, clinicians can deploy strategies to reduce the stress caused by them. Before Dr. Smith embarked on his day, it would be important for him to have asked himself the following: *What are my triggers? What emotions and patterns do they bring? (*e.g.*, I get angry and become withdrawn and lash out at other people).*

The practice of modern medicine brings many unique challenges and problems, but sometimes the emotions around these problems create more suffering than the problems themselves. The ancient Buddhist parable of the two arrows discusses a common human behavior related to suffering:

> It is said the Buddha once asked a student: 'If a person is struck by an arrow, is it painful? If the person is struck by a second arrow, is it even more painful?'
>
> He then went on to explain: 'In life, we can't always control the first arrow. However, the second arrow is our reaction to the first. This second arrow is optional.'

This is sometimes interpreted as "pain is inevitable, but suffering is optional" [31]. The first arrow causes the physical pain of the injury, and the pain of the

second arrow can be described as how our subsequent thinking about the event causes further suffering. “Why was I in this war? Why did I get sent to battlefield? Why was I the only one to get shot? I am angry and I will take revenge”, and so on. Sometimes the feeling of anger, blaming, and planning revenge can cause much more suffering than the arrow wound itself. Life will shoot many arrows at health-care providers, difficult patients, end-of-life situations, unreasonable administration, and the COVID pandemic, and these are certainly difficult situations. Unfortunately, it is not possible to control or avoid many of these situations. However, clinicians, like everyone, have control over how they react to these situations, and this new approach of conscientiously choosing how one will react to a trigger may greatly reduce suffering. In other words, the clinician has the option of saying “Ouch- this hurts, but I will try to take care of this wound” as opposed to “Ouch-this really huts, why me!?, I will get my revenge!” A self-aware reflection would be to ask oneself if the anger and blame are helpful or not. While anger is important to acknowledge and can even promote change, it is often destructive, not helpful, and can worsen or complicate a situation.

In addition to identifying triggers of stress, awareness of cognitive distortions can also help clinicians dealing with burnout. Cognitive distortions stem from automatic thoughts that lead people to perceive reality inaccurately. Many common cognitive distortions are well described and include the following: catastrophizing, filtering (only dwelling on the negative), over-generalizing, all-or-nothing thinking, jumping to conclusions and personalization, or blaming. These distortions can happen on different levels of awareness and may require therapy to uncover. But many cognitive distortions will be revealed and ameliorated by becoming more self-aware because they can cause intense emotions and their presence can be revealed by not only acknowledging the emotion but thinking about its origin on a personal level [32]. That is, identifying one’s personal triggers and cognitive distortions is not going to solve the many challenges that clinicians face, yet once one is aware of his or her triggers this can be the first step to initiate strategies to de-escalate the situation by potentially using mindfulness techniques that will be discussed in the next section.

Mindfulness

The practice of mindfulness emphasizes “moment to moment purposeful attentiveness to one’s own mental processes during everyday work with the goal of practicing with clarity and compassion.” Mindful clinicians attend in a nonjudgmental way to their own physical and mental processes during ordinary, everyday tasks. This analytical self-reflection enables physicians to listen attentively to patients’ distress, recognize their own errors, refine their technical skills, make evidence-based decisions, and clarify their values so that they can act with compassion, technical competence, presence, and insight [18]. Studies indicate that mindfulness training for practicing clinicians can have an effect on burnout, empathy, and well-being for clinicians [33, 34].

An important feature of mindfulness is that *the practice is simply observational.* The clinician observes thoughts and feelings without doing anything to change them, elaborate on them, stop them, or alter them. It is a practice about "being" that incorporates a new and deliberate approach to observation, which ricochets back serenity and a more equanimous "being" or observer. A mindfulness approach stands in contrast with the usual emphasis on "doing" for which we are acculturated to revere and is a very natural state of being as a busy clinician [35]. This shift to observing concentrated in a state of being can drastically change what one actually does over time and lead to greater clinical effectiveness as well as physical and emotional well-being.

There are several ways to incorporate mindfulness in one's daily clinical practice. At the core of mindfulness interventions is the concept of "being present." It is important to note that the goal *is not* "being peaceful" all the time but rather *being present to what is in front of us*, moment by moment. The clinician who is becoming mindful will be open to experience what is present at any given moment. It may be a connection or positive engagement with colleagues and patients or a burst of anger, frustration, or discomfort. The clinician may witness his or her negative reactions and take action to de-escalate the stressful reactions. This clinician may bear witness to the suffering of patients and families and experience a new capacity for empathy and compassion. This newfound capacity to be present and aware of the richness of our moment-to-moment experience can lead to a sense of peace and joy even while negative events and emotions are observed.

But it is not possible to be always completely present without experiencing the influence of our minds (e.g., judgmental thoughts, bodily needs). Practicing mindfulness is bringing the mind back to this observational state without harsh judgment or recourse. It is a constant exercise of coming back to the present moment repeatedly.

There are several mindfulness techniques that may be easily incorporated in a daily busy practice. The goal in listing these is to explore how they might be incorporated into one's daily practice. They are suggestions that can be practiced occasionally, daily, or multiple times a day. The best results come with consistent practice as these suggestions do not work as well on demand if the mind has not trained for it.

Placing dedicated attention to one's *breathing and cultivating mindful (awareness)* pauses has been a core meditation technique for thousands of years. There are well-designed, randomized controlled studies that have demonstrated that breathing-based meditation techniques significantly reduce anxiety and hyperarousal symptoms in individuals [36]. These techniques may be performed throughout one's clinic or during other activities that induce stress. In between patients, a clinician may take three slow deep breaths focusing on the present moment, "resetting" the brain in between clinical encounters: *one breath*, pause, *two breaths*, pause, *three breaths*, pause. As the mind wanders, one just observes the thoughts in a nonjudgmental way during this dedicated time or moment, allowing them to come and go, refocusing the attention on coming back to the present breath and the present moment. In addition, a clinician could easily take a few breaths when washing hands in between patients and several times per day. By focusing on the sensation

of the water on the hands and taking a few breaths, one can reset his or her mind in order to leave the prior patient encounter behind and enter the next meeting focusing on the patient in one's presence. These periods of reset allow the clinician to consciously decide to be present, which also means not worrying about the patients or tasks that will be coming next. Worrying about past or future patients does not help either set of patients and detracts from the patient in the room during the current moment.

In addition to breathing and mindful pauses, another meditative technique is the *body check*. This brings attention to the body to connect to the present moment and focus. By breathing mindfully one can achieve focus in the present moment, experiencing the sensation of the air coming in and out. In addition, the body check allows the clinician to acknowledge the present state of the body focusing again on the present moment while sitting, walking, or standing. *Can I feel my hips while sitting? Can I feel my feet while standing?* In this way, the body check can help to identify symptoms of stress. For example, some typical signs of stress like retrosternal burning, dry cough, or worsening gastroesophageal reflux disease (GERD) may become apparent with stress. The body check forces the clinician to focus on the present moment. With time, one will become more aware of these symptoms as they first start, which allows the clinician to accept their presence, calm the mind, and take a few breaths to reset one's mind. As these mindfulness and meditation practices progress, one may be able to ameliorate these symptoms associated with stress. A useful question for clinicians who will utilize the body scan method of meditation is to ask the following: "What are the physical signs of stress that manifest themselves in my body? Is it headache? Chest pain? Constipation? Neck pain?" Once the body scan begins to create more awareness of the psychological and physical triggers of stress, there may be an opportunity to identify the source of stress and act upon it.

These well-studied approaches (e.g., breathing, mindful pauses, and body check) involve secular forms of meditation, which may also include more organized meditative or mindful activities such as yoga or sitting meditation [37]. In fact, some clinicians may prefer sitting meditation, while others may prefer the structure of yoga, the body scan, or *visualization*, *also called guided imagery*. This meditative technique has been associated with significant acute improvements on stress, mindfulness, empathy, and resilience [33]. A brief visualization exercise can be incorporated into mindful pause, which incorporate slow, intention-filled, or mindful breaths with a visualization of the clinician's favorite place. It should be well described during the exercise. *What is your favorite place? What does it feel like to be there? What are the colors, sounds and sensations of your place? Can you try to briefly go there in your mind?* As providers navigate the many stressful moments of clinical practice and witness stressful events, it may be helpful to visualize a safe inner haven for a moment during mindful pauses throughout the day. In addition, *self-compassion* can be practiced and used as a meditative technique.

In the case vignette, Dr. Smith had a terrible day in which he felt inadequate and imperfect. Several issues at work were coupled with his personal life and feelings about himself. He felt bad that he was not able to save his patient with advanced

pancreatic cancer and felt bad that his practice was not meeting the quality goals for the fiscal quarter. At the end of the day, he also felt bad that he was not a good father when he missed his son's recital. A long tradition of perfectionism exists among clinicians, which may seem like a good thing at first glance but can lead to complications and burnout. One can turn the same perfectionism toward oneself and feel shame, anxiety, and anger, and worry that one is less than perfect. Self-compassion begins with kindness and inward self-reflective curiosity while acknowledging our own pain and humanity. Self-compassion has three parts. First, we aim to be kind to ourselves even when we have not been at our best, realizing that every person has difficult moments, or moments that fall short of our expectations. Second, we can focus on our connection to others and humanity and remember that we are not the only ones struggling with a sense of inadequacy. Lastly, we can always return to mindfulness and cultivate friendship toward ourselves [38].

A quick self-compassion exercise is the repetition of the self-compassion mantra:

> May I love myself just as I am. May I be truly happy. May I find peace in this uncertain world. May I love and be loved. [39]

Regardless of practicing a mantra meditation, the main goals are to practice acceptance of life "as it is" rather than "as we would have wished it to be." Perfectionism may be a powerful tool as clinicians strive to become better, but perfectionism can become a significant source of distress as well. In a sense, modern medicine often brings a promise of assuredness, but as clinicians know all too well, there are always unexpected surprises that are encountered and perpetuate a cycle of uncertainty and negative emotion. Healthcare providers can strive to be good clinicians and aspire for excellence, but practicing *self-compassion* is an important step toward burnout prevention.

Generally, it is recommended that the clinician progress gradually in mindfulness techniques by beginning with brief daily meditative mindfulness sessions lasting a few minutes and progressing slowly in week-long increments by extending the practice only slightly 1 week at a time. Several research studies indicate that changes occur in as short as a 2-week period and that there is a dose effect – the more you do

Box 2: Mindfulness Techniques

Breathing/mindful pauses: As the name implies, these strategies involve the breath and mindfulness-based pauses, which can be used multiple times throughout a busy clinical day. For example, a clinician may take three slow deep breaths focusing on the present moment, "resetting" the brain in between clinical encounters: *one breath*, pause, *two breaths*, pause, *three breaths*, pause. A practical way to incorporate breathing exercises is to practice pauses of mindfulness throughout the day. In addition, the multiple times per day that clinicians wash their hands may be an opportunity to dedicate to mindfulness

(awareness). By focusing on the sensation of the water on the hands and taking a few breaths, one can reset his or her mind in order to leave the prior patient encounter behind and enter the next meeting focusing on the patient in one's presence. These periods of reset allow the clinician to consciously decide to be present, which also means not worrying about the patients or tasks that will be coming next. Worrying about past or future patients does not help either set of patients and detracts from the patient in the current moment.

Body check: Bringing attention to your body can be a helpful way to connect to the present moment and focus. Body checks can help us identify symptoms of stress that are common or unique to our physical natures. With time, the clinician may become more aware of these symptoms, which allows the clinician to accept their presence, calm the mind, and take a few breaths to reset one's mind.

Meditation: This may be conceptualized as a more formal practice that involves a sitting meditation and stillness. A more formalized process may be preferred by some clinicians.

Guided imagery/visualization: Calling up a selected image or scenario with as much detail as possible. It can be incorporated with *mindful pauses* and revisited throughout the workday.

Self-compassion: Kindness to oneself even when goals are not met. Focus on connections to others and humanity in general while fostering a gentle relationship with oneself.

every day, and the longer you do it, the more benefits you get. But even a short dose – 3 minutes or even 3 breaths – can be beneficial [35].

Fitness/High-Quality Sleep

Physical activity and high-quality sleep are associated with significant cognitive benefits [40, 41], yet the goal of achieving appropriate work-life balance that would provide for both often remains elusive for healthcare clinicians. There are several potential strategies that may help clinicians find healthy boundaries, but there is not one easy solution per se. Competition between work and home life is very common, in fact, inevitable, and clinicians need to balance priorities and demands by setting boundaries in a way that is healthy, flexible, and realistic [42]. One should be sure that perfectionism isn't getting in the way of achieving work-life balance, to the extent that is possible. While striving in one's profession, clinicians often neglect their own self-care – a common theme in this chapter and book. One may look for possible strategies to say "no" to mounting obligations. A good question to ask oneself is: "What is my main goal?" For example, a primary goal of enhanced physical fitness may preclude extra academic activities during a given time since it may be unrealistic to achieve both goals simultaneously.

When considering an increase in physical activity to enhance wellness, it is important to choose a modality that suits your own personality and schedule. Some prefer outdoor activities, while others prefer the gym, or team sports, etc. Also, starting slowly and improving progressively through small increments may be helpful to prevent injuries and increase compliance. But the first step may involve saying "no" to other activities or projects. Defining these priorities helps establish healthy boundaries. Another possible way to incorporate exercise into one's daily routine may involve simple solutions such as walking to work, if feasible, or just taking the stairs instead of elevators. Every little bit helps and climbing stairs can be both an opportunity for exercise and an opportunity for mindful pauses throughout the day.

Relationships

Human beings are social by design. Family and peer support are integral components of well-being that cannot be ignored. In fact, loneliness is a growing problem in many communities, and social isolation has been identified as an independent predictor of mortality [43]. For busy clinicians, an old African proverb is universally applicable:

> If you want to go fast, go alone. If you want to go far, go together.

The ability for a clinician to connect with other clinicians at a personal level, in a way different from their typical clinical duties – with family, friends, or colleagues – has also been identified as beneficial in studies aimed at identifying components of well-being [37, 44].

How does one prioritize relationships with the demands of work life? The process of maintaining and cultivating important relationships will involve saying "no" to additional professional or work commitments and working on establishing healthy boundaries. Working on setting more modest or realistic goals at work in order to open time in your schedule for relationships with friends and family can have significant benefits. Another consideration is to invest in the "quality" of the time spent with loved ones. Mindfulness will help reduce distractions while engaging with family and friends allowing for more quality time with family and friends because one was more mentally present to experience/witness it. The Buddha famously said the following:

> Change is the only constant in life and old age, disease and death will come to us all.

Each meeting with a loved one is a precious moment for which one can be uniquely present and engaged. Recruiting a mindful demeanor can help inspire meaning during these encounters and enhance the quality of these important relationships. The clinical vignette demonstrated how professional stressors sabotaged Dr. Smith's ability to be engaged and present with his family. This can become a vicious cycle.

Important relationships need to be prioritized for their own sake and for that of professional well-being as well.

Meaning and Purpose

Reconnecting with one's purpose as a clinician can provide insight, inspiration, and motivation to do the work needed to deal with stress. Purpose is an overarching motivation or goal that the clinician values deeply. There is a tendency to wait for hugely meaningful moments to bring or define one's purpose, but meaning is present in quotidian and even tedious activities. Mindfulness is a useful vehicle to harness one's thoughts, slow down, and witness the transient beauty of existence [45]. In the case vignette, Dr. Smith received a thank you message from a patient who had recently survived cancer, yet he barely glanced at the message, prioritizing other tasks in his mind. His mind lacked the calmness needed to appreciate the message, and he missed an opportunity to create greater meaning in his work, which may have compensated for all the other negative experiences he endured.

One widespread program that has touched many clinicians was developed by Rachel Remen, author of the bestseller *Kitchen Table Wisdom*, and incorporated in many medical schools as The Healer's Art [37, 46].

Viktor Von Frankl, psychoanalyst and Holocaust survivor, hypothesized that human beings are driven by a quest to find meaning in their lives. Its presence can be highly motivating, and its absence can drive one to perish. He noted at Auschwitz that some prisoners who were starving would pass on their food to others in an act of self-sacrifice. This is an example of the power associated with the creation of meaning in one's life no matter how dire the circumstances. In his famous book *Man's Search for Meaning* [47], Frankl saw three possible sources for meaning: in *love* (caring for another person), in *courage* during difficult times, and in *work* (doing something significant for oneself, one's community, and the world). Meaning and purpose do not need to be grandiose or earth-shattering as there are infinite sources of meaning. It can be created from experiences (e.g., connection to love, beauty, or humor), creativity, courage, and responsibilities. In fact, the creation of meaning and purpose has been used as the centerpiece of meaning-centered therapy for patients with cancer and their caregivers, which is derived from Victor Frankl's original discoveries [48]. The same principles are universally applicable for clinicians as well.

Below are some examples of possible sources of meaning and purpose for clinicians [45]:

- Your contributions – to others, to science, and to clinical care
- What you are learning about your craft, either as a clinician or researcher
- Your accomplishments, large or small
- The respect you feel from others
- Your ability to use power wisely and constructively
- The community that you feel that you belong to

- The sense that you have autonomy and control over your work
- Your connection to humanity, your patients, their families, and the quest for helping in the midst of pain

As clinicians navigate the challenges of daily practice, it is easy to get upset over the many small frustrations that frequently happen. But if the clinician keeps their focus on the larger picture and is connected to the personal "why" of their work, it becomes easier to overcome daily obstacles and struggles that lead to suffering and other long-term consequences.

Interfacing with Organizational Resources

This chapter has focused on the individual clinician's approach to wellness, which should be complimented by organizational priorities toward wellness and clinician resilience. As noted above, studies have shown that the most beneficial effects come from organizational changes in workflow structure, schedules, and prioritization of clinician goals. It has been demonstrated convincingly that clinicians thrive when at least 20% of their time can be devoted to the work activity which they find most rewarding (e.g., researching a specific topic, teaching residents, administrative work, a certain type of clinical work, or a procedure) [49]. An open question remains how to achieve this balance with the demands that organizations face to meet their financial bottom lines. In general, physician turnover will cost organizations upward of over one million US dollars in lost revenue, on-boarding, and administration time in finding new employees to fulfill the work of a clinician who has left due to burnout [50]. The economic incentive to find solutions for burnout is huge, especially as these types of systemic or organizational changes may have positive effects on many clinicians simultaneously. As an individual, it is important to advocate for changes to enhance well-being for oneself at the organizational level. The case vignette demonstrated how the added stress may factor into the clinician's daily stressors and perpetuate a cycle of reinforcing negative thoughts.

Conclusion

The Buddha proclaimed that life is suffering as his first noble truth. However, his third and fourth noble truths reveal that suffering can be relieved by practice along the right path. These Buddhist tenets along with evidence-based practices are effective at minimizing the negative consequences of clinician burnout. While the phenomenon of burnout is related to the circumstance of modern healthcare, to suffer, even in one's work, is universal, and these practices are beneficial irrespective of the source.

At the same time, identifying the source of burnout is crucial for individuals and organizations to consider when identifying interventions for burnout. The evidence-based approaches reviewed in this chapter are drawn from Buddhist principles and

include cultivation of self-awareness, mindfulness, physical fitness, high-quality sleep, and trying to find meaning and purpose in one's clinical work and life and aligning oneself within one's organization to support a community of wellness. The journey toward improving well-being and preventing burnout is arduous. There will always be challenges and setbacks, but the important thing is to stick with a routine that allows for wellness to flourish and cultivates clinicians' growth personally and professionally. Attention to this area of clinical care (i.e., clinician wellbeing) is growing, and more information about evidence-based practices for clinicians and organizations is forthcoming. These are exciting times for the enterprise of clinician well-being, and it will be especially rewarding to see how these individual changes may lead to larger organizational changes in healthcare.

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