# BURNOUT, MORAL INJURY, AND RESILIENCE: FREQUENTLY ASKED QUESTIONS

The secret of the care of the patient is caring for oneself while caring for the patient.[1]

-Lucy Candib

"Moral injury locates the source of distress in a broken system, not a broken individual." - Dean, Talbot, and Dean

### **KEY POINTS:**

- Burnout includes 3 general categories of symptoms: emotional exhaustion, depersonalization, and a sense of low personal accomplishment.
- Burnout rates are well over 40% in most clinician groups, including physicians, nurses, mental health professionals, and social workers. In some groups, the rate is over 80%.
- Internal and external factors contribute to burnout, and it's important to address moral injury and systematic resiliency for a whole health approach to clinician wellbeing.
- Burnout and moral injury impact physical and mental health, as well as work performance and patient outcomes.
- Burnout and moral injury can be addressed, reframed, and cared for by cultivating compassionate resilience, for ourselves and our systems. All aspects of the Circle of Health can help us increase mindful awareness, make compassionate space, advocate for change, increase a sense of belonging, promote self-care/community care, and find our way back to our Mission, Aspiration, and Purpose.

### INTRODUCTION

In 2008, the "Triple Aim of Health Care" was described by Don Berwick, former Administrator of Medicare and Medicaid Services, and his colleagues.[2] The 3 aims are: (1) improving the experience of care, (2) enhancing the health of populations, and (3) reducing care costs. While these 3 areas are important, it has been argued that a fundamentally important aim is left out: the well-being of health care professionals. Clinician well-being has now been added in to create the "Quadruple Aim," and increasing numbers of researchers, health care leaders, and clinicians have been asking how to make it more of a reality.[3]

When your self-care as a clinician falls by the wayside—when life becomes imbalanced, work demands become unmanageable, or your stress isn't addressed—you are at increased

risk for burnout. We knew this and started talking about it back in 2008, and then we experienced 2020.

According to the US Surgeon General's 2022 Advisory Report on Building A Thriving Health Workforce, an already exhausted, morally injured, and burnout healthcare workforce endured a global pandemic amplifying and magnifying this even more. "Researchers who conducted a survey from June through September 2020 found that, of more than 1,100 health workers, 93% reported they were experiencing stress, 86% reported anxiety, 76% reported exhaustion and burnout, and 41% reported loneliness." [63]

Now more than ever, it's critical that we keep talking about burnout, moral injury, and all forms of resiliency. This Whole Health tool reviews common questions, and perhaps most importantly, we discuss next steps and actions steps. We look at ways to prevent, heal and grow by cultivating and advocating for personal and system based resilience and engagement through mindful awareness, self-care, interpersonal connections, and organizational change.

### WHAT IS BURNOUT?

The term "burnout" was first used in the 1970s by psychologist Herbert Freudenberger. He defined it as "a state of mental exhaustion caused by one's professional life." [4] Christina Maslach, who created the widely-used Maslach Burnout Inventory, defines it as "erosion of the soul caused by deterioration of one's values, dignity, and spirit." [5]

Burnout symptoms do not just come and go; they remain for a prolonged period of time (weeks to months). There are 3 general categories of symptoms tied to burnout.[6]

#### 1. Emotional exhaustion

Persistent feelings of energy depletion and exhaustion: we feel overextended, overworked, and numbed.

### 2. Depersonalization

Increased mental distance and feelings of cynicism: We may feel like it doesn't matter, nothing matters, we don't matter.

### 3. A sense of low personal accomplishment

Reduced professional efficacy: We may feel ineffective and that we are not making a difference.

### WHO EXPERIENCES BURNOUT?

All of us can experience burnout, but it is most likely to occur in people whose professions focus on helping or caring for others.[6] Burnout is closely related to "compassion fatigue," a term coined by Joinson in 1992 to describe nurses' experience of "secondary victimization" as they absorb the stress and trauma of their patients.[7]

The following are burnout statistics for different groups of clinicians:

- The 2018 Medscape Physician Lifestyle & Happiness Report, which surveyed over 15,000 **physicians** from 29 different specialties found that, depending on specialty, 40-61% of respondents were burnt out.[8] This increased from an average of 40% when the survey was first done in 2013.
- **Women identifying** physicians are 1.6 times more likely to report burnout than those identifying as men.[9]
- Burnout begins early in training; 53% of **medical students** surveyed at 7 medical schools reported symptoms of burnout.[10]
- **Residents and fellows** have some of the highest burnout rates, with up to 80% of residents in some specialties reporting burnout.[11]
- In a study of over 7,900 **surgeons**, 40% reported burnout.[12] 32% reported high levels of exhaustion, 26% had high levels of depersonalization, and 13% had a low sense of personal accomplishment. 30% screened positive for depression, and 6.4% had suicidal ideation.
- It may be that **nurses** suffer more stress and burnout than any other professional group.[13] Well over 40% of nurses report burnout symptoms.[14] Only two-thirds of staff nurses in hospitals and two-fifths in nursing homes report satisfaction with their work.[15] A sampling of 9,959 oncology nurses reported that 30% experienced emotional exhaustion, 15% depersonalization, and 35% a sense of low person accomplishment.[16] For a group of 1,110 primary care nurses those rates were 28%, 15%, and 31%.[17]
- As many as 60% of **psychologists** also struggle with burnout.[14] A 2018 review of 40 studies concluded that over half of all psychotherapists experience moderate to high levels of burnout.[18]
- A 2005 study of 751 practicing **social workers** found a current burnout rate of 39% and a lifetime rate of 75%.[19]

These statistics give us pause as we acknowledge our collective suffering, and as noted above upwards of 76% of healthcare workers reported feeling exhausted and burnout in the Surgeon General's comprehensive report in 2022.[63]

### WHAT CAUSES BURNOUT?

Many variables contribute to burnout, the combination is likely to be unique. We also acknowledge the role of both internal states and personal capacities as well as external factors often beyond our control. See the powerful graphic below:

# Factors associated with burnout among health workers



### Societal and Cultural

- · Politicization of science and public health
- · Structural racism and health inequities
- Health misinformation
- · Mental health stigma
- Unrealistic expectations of health workers

## Health Care System

- · Limitations from national and state regulation
- Misaligned reimbursement policies
- Burdensome administrative paperwork
- · Poor care coordination
- · Lack of human-centered technology

### **Organizational**

- · Lack of leadership support
- · Disconnect between values and key decisions
- · Excessive workload and work hours
- Biased and discriminatory structures and practices
- · Barriers to mental health and substance use care

### Workplace and Learning Environment

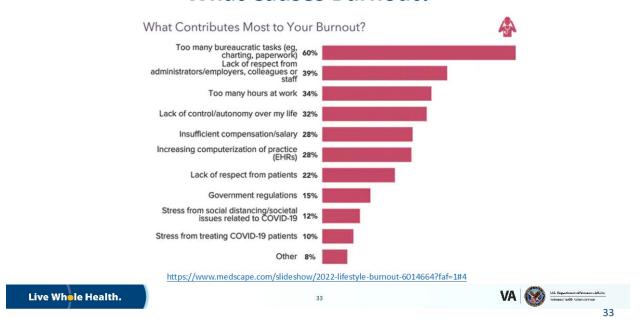
- · Limited flexibility, autonomy, and voice
- · Lack of culture of collaboration and vulnerability
- · Limited time with patients and colleagues
- · Absence of focus on health worker well-being
- · Harassment, violence, and discrimination

"This is beyond my control..."



Another take is from the 2022 Annual Medscape Burnout Survey:[64]

### What Causes Burnout?



Various studies show a mix of external and internal factors affecting burnout in different groups. For example, nurses who reported working in a "good work environment" had lower burnout ratings and higher patient satisfaction scores.[26] For social workers, some of the variables that correlated most strongly with the presence of burnout were number of hours worked, vacation days (or lack of them), material resources, co-worker support, percentage of stressful clients, ethical compromises, need for approval, perfectionism, and difficulty asking for help.[27]



### MINDFUL AWARENESS MOMENT

### WHICH BURNOUT FACTORS AFFECT YOU?

Take a moment to review the lists of factors that can lead to burnout.

- Which ones are present in your life?
- Make space for this awareness with compassionate attention
- Invite a deep breath in and out as you acknowledge the hard, what we do is hard.

Burnout and Resilience: Frequently Asked Questions

Invite a deep breath in and out as you acknowledge the hard, what we do is hard. Stay in this place of compassion for a few more breath cycles, perhaps repeating what we do can be hard.

### WHAT ARE THE EFFECTS OF BURNOUT?

Burnout impacts all of us:[64]



### "I can't provide the best care to my patients..."

## "I can't get the care I need..."



# Health worker burnout can have many negative consequences

### **Health Workers**

- · Insomnia, heart disease, and diabetes
- · Isolation, substance use, anxiety, and depression
  - Relationship and interpersonal challenges
- · Exhaustion from overwhelming care and empathy

### **Patients**

- · Less time with health workers
- · Delays in care and diagnosis
  - · Lower quality of care
    - Medical errors

### **Health Care System**

- Health workforce shortages and retention challenges
  - · Limited services available
- · Risk of malpractice and decreased patient satisfaction
  - Increased costs

### **Community and Society**

- · Erosion of trust
- · Worsening population health outcomes
  - Increased health disparities
- Lack of preparedness for public health crises



Clearly, burnout is a significant problem with far-reaching effects, both on clinicians and the quality of their patient care, so the big question becomes what can we do?

### **HOW DO WE PREVENT, HEAL, AND CARE FOR BURNOUT?**

**Resiliency can be a helpful and triggering word**. Resilience is defined as "the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress."[35] Fostering both personal and system based resilience is central to the Whole Health approach, and it can be cultivated in a number of ways. A model for resilience can be drawn from the Circle of Health, as illustrated in Figure 1, below:



Figure 1. The Circle of Resilience.

Resilience arises through a combination of the following: [36,37]

- 1. Being clear on what you need and value both personally and professionally, as an individual and as a larger community (Me at the Center of the Circle/we at the center of the circle)
- 2. Cultivating insight (working with Mindful Awareness)
- 3. Taking care of yourself (the 8 circles of Proactive Self-Care)
- 4. Receiving support of others—at both the local and organizational level (Professional Care and Community)
- 5. Advocating for systematic change, finding and using our collective voice (Community/Social and Structural Determinants of Health)

Each of these points merits a closer look.

## HOW CAN KNOWING WHAT REALLY MATTERS TO YOU FOSTER RESILIENCE?

While each person will find unique ways to foster resilience, certain general guidelines are relevant to everyone.[38] Reflection about personal values is one of these; finding meaning in our work has been described as "the prescription for caring for burnout."[39] For example, burnout risk is decreased for clinicians who can spend at least 20% of their time focused on what really matters to them in their work.[34] Being able to find meaning—to know what one values in work and life—can also contribute to personal and professional vitality.[40] Take some time to pause and consider what you value most highly in your work and in your life in general. What really matters to you? For more on elaborating on your values, refer to "Values."

One value that stands out when it comes to building resilience is autonomy. A study of over 420,000 people in 63 countries concluded that choice was linked to well-being much more strongly than wealth.[41] That is, having control over what happens to you at work is a more important value to most people than how much money they make.

Balance between work and other aspects of life is an additional value that is closely linked to clinician well-being.[43,44] It may help to identify the conflicts that exist between professional and personal values and rank them in order of importance.[38] It is important to allow for healthy boundaries between work and other aspects of your life for many reasons. Refer to "Work-Life Integration: Tips and Resources" for more information.

### HOW ARE MINDFUL AWARENESS AND RESILIENCE CONNECTED?

Mindful awareness can help to enhance clinician well-being in a variety of ways.[45] This has been noted in several recent studies.

A 2017 systematic review noted that 9 of 14 studies involving 833 clinicians found positive changes from brief mindfulness interventions (<4 hour in length) on burnout symptoms, as well as resilience, stress, and anxiety.[46] This is especially remarkable in that most mindfulness studies focus on the effects of a full 8-week training, not such short training sessions.

In 2009, Krasner and colleagues evaluated the impact of a course on mindful communication offered to a group of 70 primary care physicians in the Rochester, New York area.[47] The course had an 8-week intensive phase and a 10-month maintenance phase. Not only did participants demonstrate improvements in mindfulness scores, they also showed significant improvement in terms of scores in the three main aspects of burnout. Improvements in burnout, mood disturbance, emotional stability, and empathy scores correlated with the degree of improvement subjects showed on measures of mindful awareness. Interestingly, mindfulness scores showed the *largest* effect sizes at 15 months. In other words, the benefits of mindfulness practice were not only maintained, but actually became more pronounced over time. For more on mindful awareness and specific meditation techniques, refer to "Mindful Awareness" and "Power of the Mind" and their related Whole Health tools.

Fortney and colleagues found that an abbreviated mindfulness course for 30 primary care clinicians resulted in improvements in all Maslach Burnout Inventory subscales, even at 9 months follow-up.[48] There were also statistically significant improvements in measures of depression, anxiety, and stress.

A study of 93 health care providers from different backgrounds, including nurses, social workers, and psychologists, found that all three subscales of the Maslach Burnout Inventory showed improvement for participants after they took an 8-week mindfulness-based stress reduction (MBSR) course.[6]

A Mayo study focused on a 9-month program for which 74 internists attended 19 biweekly group sessions.[49] The hour-long sessions were protected time (not added on to other work responsibilities) and focused on meaning in work, clinician depression, job satisfaction, and burnout. Even 12 months after the study, meaning and engagement in work remained improved, and depersonalization was still reduced.



### MINDFUL AWARENESS MOMENT

### AN EXERCISE FOR THE END OF THE DAY

As you make your way home from work, take a few minutes to reflect on the following questions:

- 1. What did I learn today? Is there anything I will do differently based on what I learned?
- 2. What am I grateful for today? Think of 3 things that you could share with another person. (Doing this can actually change the way you look at the day, as you start anticipating doing this activity and begin mindfully watching for fulfilling experiences.)

After my workday, what do I need right now to best care for myself? What is one way I can spend 5 minutes on my arrival home to meet that need?

We must remember that it is our inner world that keeps us grounded. By taking a few simple steps to enhance our self-awareness, we can gain new insight about ourselves and our work and renewed enthusiasm for the practice of medicine.[51]

-C. Carolyn Thiedke

### **HOW DOES RESILIENCE TIE IN WITH SELF-CARE?**

"Implementing Whole Health in Your Own Life: Clinician Self -Care" encourages readers to do some self-evaluation. If you haven't already done so, take time to create your own Personal Health Plan (PHP).

In a 2012 study by Shanafelt and colleagues, 7,200 surgeons were evaluated. They found that the ones who were least likely to be burnt out had more strongly positive answers to the following questions:[42]

- I find meaning in my work.
- I protect time away from work for my spouse, family, and friends.
- I focus on what is most important to me in life.
- I try to take a positive outlook on things.
- I take vacations.
- I participate in recreation, hobbies, and exercise.
- I talk with family, a significant other, or friends about how I am feeling.

- I have developed an approach/philosophy for dealing with patients' suffering and death.
- I incorporate a life philosophy stressing balance in my personal and professional life.
- I look forward to retirement.
- I discuss stressful aspects of work with colleagues.
- I nurture the religious/spiritual aspects of myself.
- I am involved in non-patient care activities (e.g., research, education, administration).
- I engage in contemplative practices or other mindfulness activities such as meditation, narrative medicine, or appreciative inquiry, etc.
- I engage in reflective writing or other journaling techniques.
- I have regular meetings with a psychologist/ psychiatrist to discuss stress.

Self-care makes sense, and it can be incredibly hard to do, perhaps giving yourself permission to even pause to ask how can I take care of myself is a start. Many of us need reinforced permission that caring for ourselves is essential, and in fact we cannot take care of others if we don't start with ourselves. But this isn't the whole picture. Many of us also feel like if one more person tells us to breathe, we might scream:

Treating burnout exclusively as something that people are responsible for preventing themselves is wrong. As the Surgeon General reminds us,

"When examining burnout, it is important to note another phenomenon—moral distress—which can intersect with burnout. In health care settings, it can manifest when health workers know the best health care decision to make but feel helpless and unable to act due to limited resources or circumstances beyond their control.<sup>2</sup>"

Self-care is important, but organizational initiatives to address Moral Injury and systemic resilience may be a better place for leaders to focus their efforts.

## MORAL INJURY AND THE ROLE OF PROFESSIONAL CARE AND MORAL RESILIENCY

In the shelter of each other, we live.	
	—Anonymous

A 2020 study published in JAMA found that in general physicians had higher than average levels of personal resiliency and yet still had reported symptoms of burnout.[65] The conclusion: personal resiliency is not all we need, we need resilient systems and institutions in which to work.

A 2017 systematic review of 19 studies that included 1,550 physicians noted "...Moral injury is a problem of the whole health care organization, rather than individuals." This was based on findings indicating that burnout scores improved most when organizations made concerted efforts to initiate burnout prevention (and resilience and engagement enhancement).[56]

Organizational approaches to addressing moral injury, burnout and fostering resilience and engagement can take many forms. In a 2017 article, 9 research-informed organizational strategies were outlined.[52]

- 1. **Acknowledge and assess the problem**. Gather data about burnout, publicize results, and be clear it is an organizational priority.
- 2. **Harness the power of leadership**. A 2013 Mayo study found that every 1-point increase on a 60-point leadership score for a physician's direct supervisor was linked to a 3.3% decrease in burnout likelihood.[57]
- 3. **Develop and implement targeted interventions**. This should vary based on specialty, work units, and teams since causes and potential solutions are local. Shanafelt and Noseworthy offer a stepwise process that can guide leadership with this strategy.[52]
- 4. **Cultivate community at work**. Gatherings, staff rooms, and protected time for clinicians to meet can prove beneficial.
- 5. **Use rewards and incentives wisely**. We know that compensation based on productivity increases burnout for physicians.[58]
- 6. **Align values and strengthen cultures**. Staff surveys and honest self-appraisals can help.
- 7. **Promote flexibility and work-life integration**. Refer to "Work-Life Integration: Tips and Resources" for more information. Being able to adjust work hours and having greater flexibility around start and end times for "shifts" can be helpful.
- 8. **Provide resources to promote resilience and self-care**. As noted previously, this should be done in the context of organizational change, not instead of organizational change.
- 9. **Facilitate and fund Organizational Science**. Organizational Science is the study of how different factors influence effectiveness, health, and well-being at the individual and organizational levels. Organizations can improve if they focus in on this area. Study your site, and share what you learn with other organizations, teams, and VA facilities.

Krasner et al. reviewed the organizational efforts of a primary care group in Portland, Oregon. With the support of institutional leadership, the organization enacted systems-level changes that provided physicians greater control over hours and procedures, improved efficiency and teamwork in practices, and provided meaning by integrating improvements in patients' experience of care into administrative meetings. This program showed improvements in practitioners' emotional exhaustion sub-scale of the Maslach Burnout Inventory.[47]

Arnetz and Christensen, who developed the Portland-based program with their colleagues, created interventions based on 3 "Core Principles," [25] that included the following:

- 1. *Control.* Group meetings were held to elicit physician concerns. Workflow was customized to meet clinician goals. Work schedules were flexible, and templates were customized to individual needs. Specific interests, such as preferences to focus more time on teaching, research, and inpatient versus outpatient care, were accommodated.
- 2. *Order.* Office design focused on making flow as efficient as possible, and having high-quality staff was made a priority. Care management was given more of a role, and the group began using hospitalists and an Electronic Medical Record (EMR). They also adopted the Institute for Healthcare Improvement "Idealized Design of Clinical Office Practice."[60]
- 3. *Meaning.* Interventions were also done with the intent of enhancing satisfaction with offering care. Clinical site meetings gave clinical issues precedence over administrative issues. Intentional pauses were offered to grieve the loss of deceased patients. Group meetings began with patient presentations.

Combatting moral injury and burnout while promoting all forms of resilience is more effective when backed by organizational support. The Whole Health approach is best provided within a Whole Health System, where multiple clinicians collaborate across disciplines, with strong support from colleagues and from the organization as a whole.[62]

Approaches to organization-level work with burnout, resilience, and engagement are summarized in Figure 2, which is based on an original graphic by Shanafelt and colleagues.[52]

### THE KEY DRIVERS OF BURNOUT

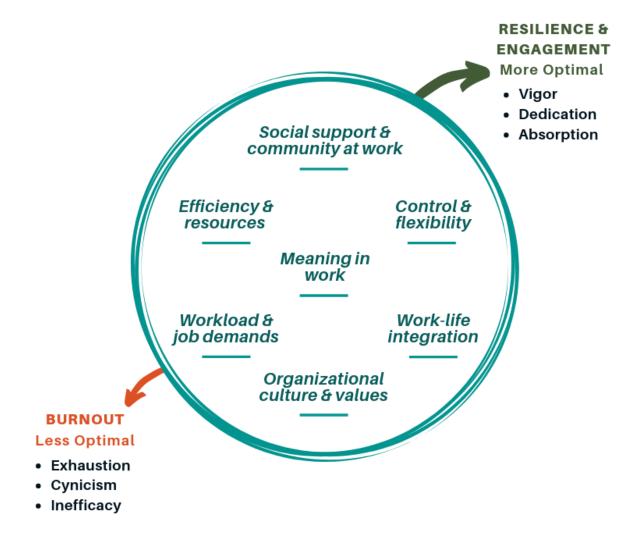


Figure 2. Key Drivers of Burnout, Resilience, and Engagement

### **CONCLUSION**

As you focus on Whole Health, continually "return full circle" to check in with how you are doing when it comes to burnout, moral injury, resilience in all forms, and engagement. Start with your own practice, but it's more than that, and it's not just you. You are not alone! How can we encourage and advocate for change at the team, clinic, or facility level? For more information on specific ways to foster resilience, refer to "Personal Development" and related Whole Health tools. As the Surgeon general reminds us below, it's time to

Burnout and Resilience: Frequently Asked Questions

thrive together as resilient and whole humans working in more resilient and whole systems.	

# Thriving together: Solutions to health worker burnout



We must shift burnout from a "me" problem to a "we" problem.

Diverse and empowered health workforce Leadership commitment and organizational values

Reduced administrative burdens

Accessible mental health and substance use care

Culture of healing, community and connection Safe and inclusive environments

Human-centered technology

**Community** partnership





Federal, State,

Local, Tribal

Governments

Health Care Organizations Health Insurers and Payers

Academic Institutions

Licensing and Accreditation Bodies

Researchers

Family Members, Friends, and Communities



### **RESOURCE LINKS**

- Implementing Whole Health in Your Own Life: Clinician Self-Care: https://www.va.gov/WHOLEHEALTHLIBRARY/overviews/clinician-self-care.asp
- <u>Mindful Awareness</u>: https://www.va.gov/WHOLEHEALTHLIBRARY/self-care/mindful-awareness.asp
- <u>Personal Development</u>: https://www.va.gov/WHOLEHEALTHLIBRARY/self-care/personal-development.asp
- <u>Power of the Mind</u>: https://www.va.gov/WHOLEHEALTHLIBRARY/self-care/power-of-the-mind.asp
- <u>Values</u>: https://www.va.gov/WHOLEHEALTHLIBRARY/tools/values.asp
- Work-Life Integration: Tips and Resources: https://www.va.gov/WHOLEHEALTHLIBRARY/tools/work-life-integration-tips-and-resources.asp

### **AUTHOR**

"Burnout and Resilience, FAQ's" was written by <u>J. Adam Rindfleisch</u>, MPhil, MD with updates by <u>Julia Yates</u>, <u>LCSW</u> (2014, updated 2023).

This Whole Health tool was made possible through a collaborative effort between the University of Wisconsin Integrative Health Program, VA Office of Patient Centered Care and Cultural Transformation, and Pacific Institute for Research and Evaluation.

### **REFERENCES**

- 1. Candib L. *Medicine and the Family: A Feminist Perspective.* New York, NY: BasicBooks; 1995.
- 2. Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff (Millwood)*. 2008;27(3):759-769.
- 3. Gergen Barnett KA. In Pursuit of the Fourth Aim in Health Care: The Joy of Practice. *Med Clin North Am.* 2017;101(5):1031-1040.
- 4. Freudenberger HJ, Richelson G. *Burn-out: The High Cost of High Achievement.* New York: Bantam Books; 1980.
- 5. Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory Manual.* 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996.
- 6. Awa WL, Plaumann M, Walter U. Burnout prevention: a review of intervention programs. *Patient Educ Couns.* 2010;78(2):184-190.
- 7. Najjar N, Davis LW, Beck-Coon K, Carney Doebbeling C. Compassion fatigue: a review of the research to date and relevance to cancer-care providers. *J Health Psychol.* 2009;14(2):267-277.

- 8. Peckham C. Medscape Lifestyle & Happiness Report 2018. https://www.medscape.com/slideshow/2018-lifestyle-happiness-6009320. Accessed July 18, 2018.
- 9. McMurray JE, Linzer M, Konrad TR, Douglas J, Shugerman R, Nelson K. The work lives of women physicians results from the physician work life study. The SGIM Career Satisfaction Study Group. *J Gen Intern Med.* 2000;15(6):372-380.
- 10. Dyrbye LN, Massie FS, Jr., Eacker A, et al. Relationship between burnout and professional conduct and attitudes among US medical students. *JAMA*. 2010;304(11):1173-1180.
- 11. Dyrbye LN, West CP, Satele D, et al. Burnout among U.S. medical students, residents, and early career physicians relative to the general U.S. population. *Acad Med.* 2014;89(3):443-451.
- 12. Balch CM, Shanafelt T. Combating stress and burnout in surgical practice: a review. *Adv Surg.* 2010;44:29-47.
- 13. Davies WR. Mindful meditation: healing burnout in critical care nursing. *Holist Nurs Pract.* 2008;22(1):32-36.
- 14. Irving JA, Dobkin PL, Park J. Cultivating mindfulness in health care professionals: a review of empirical studies of mindfulness-based stress reduction (MBSR). *Complement Ther Clin Pract.* 2009;15(2):61-66.
- 15. Spratley E, Johnson A, Sochalski J, Fritz M, Spencer W. *The Registered Nurse Population, March 2000. Findings from the National Sample Survey of Registered Nurses.* Washington D.C.: US Dept of Health and Human Services, Health Resources and Service Administration, Bureau of Health Professions, Division of Nursing;2001.
- 16. Canadas-De la Fuente GA, Gomez-Urquiza JL, Ortega-Campos EM, Canadas GR, Albendin-Garcia L, De la Fuente-Solana EI. Prevalence of burnout syndrome in oncology nursing: A meta-analytic study. *Psychooncology.* 2018;27(5):1426-1433.
- 17. Monsalve-Reyes CS, San Luis-Costas C, Gomez-Urquiza JL, Albendin-Garcia L, Aguayo R, Canadas-De la Fuente GA. Burnout syndrome and its prevalence in primary care nursing: a systematic review and meta-analysis. *BMC family practice*. 2018;19(1):59.
- 18. Simionato GK, Simpson S. Personal risk factors associated with burnout among psychotherapists: A systematic review of the literature. *J Clin Psychol.* 2018.
- 19. Siebert DC. Personal and cccupational factors in burnout among practicing social workers. *J Soc Serv Res.* 2006;32(2):25-44.
- 20. Nedrow A, Steckler NA, Hardman J. Physician resilience and burnout: can you make the switch? *Fam Pract Manag.* 2013;20(1):25-30.
- 21. Balch CM, Freischlag JA, Shanafelt TD. Stress and burnout among surgeons: understanding and managing the syndrome and avoiding the adverse consequences. *Arch Surg.* 2009;144(4):371-376.
- 22. Mechanic D. Physician discontent: challenges and opportunities. *JAMA*. 2003;290(7):941-946.
- 23. Peckham C. Physician lifestyles Linking to Burnout: a Medscape survey. Published March 28, 2013; Medscape website. http://www.medscape.com/features/slideshow/lifestyle/2013/public. Accessed April 1, 2014.
- 24. Espeland KE. Overcoming burnout: how to revitalize your career. *J Contin Educ Nurs.* 2006;37(4):178-184.

- 25. Dunn PM, Arnetz BB, Christensen JF, Homer L. Meeting the imperative to improve physician well-being: assessment of an innovative program. *J Gen Intern Med.* 2007;22(11):1544-1552.
- 26. Copanitsanou P, Fotos N, Brokalaki H. Effects of work environment on patient and nurse outcomes. *Br J Nurs.* 2017;26(3):172-176.
- 27. Siebert DC. Denial of AOD use: an issue for social workers and the profession. *Health Soc Work.* 2003;28(2):89-97.
- 28. Spickard A, Jr., Gabbe SG, Christensen JF. Mid-career burnout in generalist and specialist physicians. *JAMA*. 2002;288(12):1447-1450.
- 29. Surawicz CM. J. Edward Berk distinguished lecture: Avoiding burnout: Finding balance between work and everything else. *Am J Gastroenterol.* 2014;109(4):511-514.
- 30. Doherty WJ, Burge SK. Divorce among physicians. Comparisons with other occupational groups. *JAMA*. 1989;261(16):2374-2377.
- 31. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Ann Surg.* 2010;251(6):995-1000.
- 32. Tawfik DS, Profit J, Morgenthaler TI, et al. Physician Burnout, Well-being, and Work Unit Safety Grades in Relationship to Reported Medical Errors. *Mayo Clin Proc.* 2018.
- 33. Chang BP, Carter E, Ng N, Flynn C, Tan T. Association of clinician burnout and perceived clinician-patient communication. *Am J Emerg Med.* 2018;36(1):156-158.
- 34. Dewa CS, Loong D, Bonato S, Thanh NX, Jacobs P. How does burnout affect physician productivity? A systematic literature review. *BMC Health Serv Res.* 2014;14:325.
- 35. American Psychological Association. What is resilience? 2014; http://www.apa.org/helpcenter/road-resilience.aspx. Accessed April 1, 2014.
- 36. Robertson HD, Elliott AM, Burton C, et al. Resilience of primary healthcare professionals: a systematic review. *Br J Gen Pract.* 2016;66(647):e423-433.
- 37. West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet.* 2016;388(10057):2272-2281.
- 38. Shanafelt TD. Finding meaning, balance, and personal satisfaction in the practice of oncology. *J Support Oncol.* 2005;3(2):157-162, 164.
- 39. Shanafelt TD. Enhancing meaning in work: a prescription for preventing physician burnout and promoting patient-centered care. *JAMA*. 2009;302(12):1338-1340.
- 40. Gazelle G, Liebschutz JM, Riess H. Physician burnout: coaching a way out. *J Gen Intern Med.* 2015;30(4):508-513.
- 41. Fischer R, Boer D. What is more important for national well-being: money or autonomy? A meta-analysis of well-being, burnout, and anxiety across 63 societies. *J Pers Soc Psychol.* 2011;101(1):164-184.
- 42. Shanafelt TD, Oreskovich MR, Dyrbye LN, et al. Avoiding burnout: the personal health habits and wellness practices of US surgeons. *Ann Surg.* 2012;255(4):625-633.
- 43. Shanafelt TD, Sloan JA, Habermann TM. The well-being of physicians. *Am J Med.* 2003;114(6):513-519.
- 44. Coster JS, Schwebel M. Well-functioning in professional psychologists. *Prof Psychol Res Pr.* 1997;28(1):5-13.

- 45. Lomas T, Medina JC, Ivtzan I, Rupprecht S, Eiroa-Orosa FJ. A systematic review of the impact of mindfulness on the well-being of healthcare professionals. *J Clin Psychol.* 2018;74(3):319-355.
- 46. Gilmartin H, Goyal A, Hamati MC, Mann J, Saint S, Chopra V. Brief mindfulness practices for healthcare providers a systematic literature review. *Am J Med.* 2017;130(10):1219.e1211-1219.e1217.
- 47. Krasner MS, Epstein RM, Beckman H, et al. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA*. 2009;302(12):1284-1293.
- 48. Fortney L, Luchterhand C, Zakletskaia L, Zgierska A, Rakel D. Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: a pilot study. *Ann Fam Med.* 2013;11(5):412-420.
- 49. Siedsma M, Emlet L. Physician burnout: can we make a difference together? *Crit Care.* 2015;19:273.
- 50. Braun SE, Auerbach SM, Rybarczyk B, Lee B, Call S. Mindfulness, burnout, and effects on performance evaluations in internal medicine residents. *Adv Med Educ Pract.* 2017;8:591-597.
- 51. Thiedke CC. Rediscovering the joy of family practice. *Fam Pract Manag.* 2003;10(9):57-61.
- 52. Shanafelt TD, Noseworthy JH. Executive Leadership and Physician Well-being: Nine Organizational Strategies to Promote Engagement and Reduce Burnout. *Mayo Clin Proc.* 2017;92(1):129-146.
- 53. Lister ED, Ledbetter TG, Warren AM. The engaged physician. *Mayo Clin Proc.* 2015;90(4):425-427.
- 54. Shimazu A, Schaufeli WB. Work engagement: an emerging concept in occupational health psychology. *Biosci Trends.* 2008;2(1):2.
- 55. Craigie Jr FC. Weaving spirituality into organizational life: suggestions for processes and programs. *Health Progress.* 1998;79(2):25-32.
- 56. Panagioti M, Panagopoulou E, Bower P, et al. Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis. *JAMA Intern Med.* 2017:177(2):195-205.
- 57. Shanafelt TD, Gorringe G, Menaker R, et al. Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin Proc.* 2015;90(4):432-440.
- 58. Shanafelt TD, Gradishar WJ, Kosty M, et al. Burnout and career satisfaction among US oncologists. *J Clin Oncol.* 2014;32(7):678-686.
- 59. Linzer M, Poplau S, Grossman E, et al. A Cluster Randomized Trial of Interventions to Improve Work Conditions and Clinician Burnout in Primary Care: Results from the Healthy Work Place (HWP) Study. *J Gen Intern Med.* 2015;30(8):1105-1111.
- 60. Berwick D, Kilo C. Idealized design of clinical office practice: an interview with Donald Berwick and Charles Kilo of the Institute for Healthcare Improvement. *Manag Care Q.* 1999;7(4):62-69.
- 61. Sotile WM, Sotile MO. Beyond physician burnout: keys to effective emotional management. *J Med Pract Manage*. 2003;18(6):314-318.
- 62. Rothenberger DA. Physician burnout and well-being: A systematic review and framework for action. *Dis Colon Rectum.* 2017;60(6):567-576.

- 63. Office of the US Surgeon General. Addressing health worker burnout: The U.S. surgeon general's advisory on building a thriving health workforce. US Department of Health and Human Services. 2022. Accessed February 22, 2023. https://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf.
- 64. Kane L. Physician burnout & depression report 2022: Stress, anxiety, and anger. Medscape. January 21, 2022. Accessed February 20, 2023. https://www.medscape.com/slideshow/2022-lifestyle-burnout-6014664?faf=1#4.
- 65. West CP, Dyrbye LN, Sinsky C, et al. Resilience and Burnout Among Physicians and the General US Working Population. *JAMA Netw Open*. 2020;3(7):e209385. doi:10.1001/jamanetworkopen.2020.9385