JOURNAL of_____ MAINE MEDICAL CENTER Journal of Maine Medical Center

Volume 3 | Issue 2

Article 17

2021

MMC WELLBEING & PEER SUPPORT PROGRAM

Christine Hein MD MITE Ad-Hoc Writing Committee Chair, Maine Medical Center, Portland, ME

Follow this and additional works at: https://knowledgeconnection.mainehealth.org/jmmc

Part of the Medicine and Health Sciences Commons

Recommended Citation

Hein, Christine MD (2021) "MMC WELLBEING & PEER SUPPORT PROGRAM," Journal of Maine Medical Center. Vol. 3 : Iss. 2, Article 17. Available at: https://knowledgeconnection.mainehealth.org/jmmc/vol3/iss2/17 https://doi.org/10.46804/ 2641-2225.1110

The views and thoughts expressed in this manuscript belong solely to the author[s] and do not reflect the opinions of the Journal of Maine Medical Center or MaineHealth.

This Supplement is brought to you for free and open access by Maine Medical Center Department of Medical Education. It has been accepted for inclusion in the Journal of Maine Medical Center by an authorized editor of the MaineHealth Knowledge Connection. For more information, please contact Dina McKelvy mckeld1@mmc.org.



WHITE PAPER

MMC WELLBEING & PEER SUPPORT PROGRAM

MITE Ad-Hoc Writing Committee

Christine Hein, MD, Chair Frank Chessa, PhD Angela Leclerc, PA-C Patrick Mailloux, DO Ryan Polly, PhD, M.Ed Elizabeth Sue Rose-Norfleet, MPH Tania Strout, PhD, RN, MS John Tooker, MD, MBP, MACP Michaela Wipfler

Submitted April 2021

TABLE OF CONTENTS

I.	Executive Summary	Pages 3-7
II.	Introduction	Pages 8-9
III.	Governance & Structure	Pages 9-10
IV.	Specific Considerations	Pages 10-16
	a. Burnout Contributors	Pages 10-12
	b. Leadership, Interpersonal Connections,	Pages 12-16
	Professional Growth & Opportunities	
V.	Wellbeing Strategies	Pages 16-19
	a. Individual Strategies	Pages 16-17
	b. Organizational Strategies	Pages 17-19
VI.	Professionalism	Pages 19-23
VII.	Diversity, Equity & Inclusion	Pages 24-26
VIII.	Wellbeing in Training	Pages 26-28
IX.	Considerations in Post-graduate Career	Pages 28-30
X.	Mental Health & Substance Use Disorders	Pages 30-31
XI.	Conclusion	Page 32
XII.	References	Page 33-41

Submitted April 2021

EXECUTIVE SUMMARY

Synopsis

There are four compelling arguments for organizations to develop wellbeing programs: the *moral case* (an organization should care for its people), the *business case* (higher quality of care, decreased turnover, decreased medical errors), the *regulatory case* (accrediting requirements) and the *tragic case* (provider suicide).⁸² Through strategic planning and intentional program development, wellbeing programs can contribute to organizational success by enhancing professional satisfaction and reducing burnout.

Guiding Principles¹¹⁹

Effective patient care requires provider wellbeing.

Provider wellbeing is interdependent with the healthcare team wellbeing.

Provider wellbeing is a quality marker.

Provider wellbeing is a shared responsibility between the organization and its individuals.

Foundational Elements; The Scope of the MMC Wellbeing Program⁸²

The Wellbeing program will directly address occupational risks to healthcare providers through strategies that enhance professional satisfaction and reduce burnout.

The program's role will include advocacy and advising as well as design and implementation of targeted interventions to reduce burnout and enhance satisfaction.

The program is primarily designed to support medical staff and house staff while recognizing and committed to close alignment with all colleagues to improve the organizational culture of support.

Submitted April 2021

The program will be responsible for annual assessment of drivers of burnout and will share these results with leadership for recognition of challenges and responses to improve provider satisfaction.

The program will highlight drivers of the institution's "burnout profile" and offer potential strategies to staff and leadership to address challenges within identified work units.

The program is responsible for ongoing support and development of existing programs, including but not limited to the Peer Support Program and the Council of Wellbeing Directors (Appendix B).

The program will collaborate/promote/support existing and emerging mental health resources for medical staff and house staff to compliment and highlight the need for and benefits of these resources, reduce stigma and minimize barriers to accessing mental health care.

The program will advocate for reform when appropriate with governing/licensing/accrediting bodies to reduce the stigma associated with seeking help and treatment for mental illness and substance misuse disorders.

The program will serve as a collaborator, leader and resource for similar programs throughout the state of Maine and Northeast region to advance a culture of wellbeing and will share knowledge with other developing programs.

Recommendations

Provider wellbeing should be embedded into decision making at every level of the organization (Appendix A, Figure 1 and Figure 2).^{120,121}

Provider wellbeing should be a measurable quality metric for the organization.

The MMC Provider Wellbeing and Peer Support Program should be empowered, resourced with appropriate budget, and adequately staffed for progression into a Center for Wellbeing. Current needs for staffing include the following positions which are anticipated to grow and expand simultaneously with program development.

- a. 0.7 FTE CWO
- b. 1.0 FTE Program Manager
- c. 1.0 FTE Administrative Support

The Provider Wellbeing Program should have a dedicated budget appropriate for the size of the organization.

The Chief Wellness Officer should have frequent, routine communication with the executive leadership team including the President, CMO, COO, CFO, CNO, Associate CMO, VP of Quality and VP of Human Resources and DEI leadership.

Each Service Line/Department/Division should have (1) representative Member of the Council of Wellbeing Directors with dedicated FTE to use as a direct change agent within their work unit.

The organization's executive and clinical leadership should support programs which are system oriented to reduce burnout and improve professional satisfaction.

APPENDIX A: Models of Organizational Wellbeing



Figure 1. WellMD Professional Fulfillment Model¹²¹

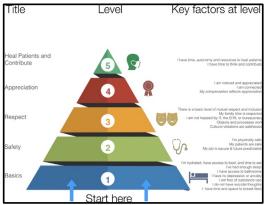


Figure 2. Health Professional Wellness Hiearchy¹²⁰

APPENDIX B: Foundational Programs

Provider Health and Resilience Committee (PHRC): The PHRC is a Medical Staff subcommittee of the Medical Executive Committee, and the founding group of the wellbeing effort. The PHRC formed in 2013 and launched the Peer Support program in 2014. From inception, the PHRC identified the entire MMC Medical Staff and House Staff as the population served. The committee charter and composition is detailed in the Medical Staff Organization Manual. Over time the inventory of offerings has expanded significantly and the role of the PHRC has evolved to be the steering/advisory committee for the MMC Provider Well-Being and Peer Support program.

Peer Support Program: Since 2014, the Peer Support program has been the flagship initiative in the Wellbeing effort. The program leader, now Chief Wellness Officer, is available 24/7 to receive referrals for peer support, and connect a peer supporter with the individual needing support. An appropriately-sized group of trained volunteers are available to enable a peer-to-peer interaction tailored to the needs of the specific situation. All interactions are private and confidential; no records or transcriptions are kept other than how many referrals are made to the program, and how many referrals were accepted/declined by the referred individuals. This program is intended as a short-term intervention and the peer supporters may refer individual to identified resources in the event that longer-term support is desired.

Council of Well-Being Directors (COWD): The COWD convened in the summer 2020 as the arm of the MMC Provider Well-Being and Peer Support program focused on maintaining an accurate and informed appraisal of provider work environments in order to 1) identify opportunities for improvement and advocate for changes that will reduce structural/systemic drivers of burnout and 2) promote bidirectional connectedness between individuals and institutional wellbeing resources by being highly visible conduits for communication, education, and support. The COWD is intended to be a large group with broad representation across all divisions/departments. Wellbeing Directors will act as change advocates within their work units; they will collect and organize observations from their local teams about workplace systemic drivers of provider burnout, strategize options for resolution, and connect and/or collaborate with appropriate resources for mitigation.

INTRODUCTION

While the practice of medicine has changed dramatically in the past century, the basic tenets have remained steadfast: "To cure sometimes, to relieve often and to comfort always".¹ Even as advances in scientific knowledge have dramatically expanded -- translating to increased survival for many common illnesses -- the foundation for our collective calling to medicine is unchanged: "The physician must . . . have two special objects in view with regard to disease, namely, to do good or to do no harm".² Regrettably, the rapidly evolving scientific landscape that has been so beneficial to patients has not been without consequences for healthcare providers themselves, as the daily practice of medicine has become increasingly complex and rushed, threatening the sense of meaning and purpose that calls many to the profession. Despite the fact that physicians and healthcare providers often describe their professional motivations as including a desire to help others, to make a difference, and to find meaning in caring for patients, providers are suffering from burnout at alarmingly high levels. In the most recent national data published by Medscape, 42% of US physicians reported symptoms of burnout and 60% of APRNs reported prior or current symptoms of burnout.^{3,118} While this paper will focus specifically on healthcare providers and much of the current literature is specific to the physician population, it is recognized that burnout is impactful to all members of the care team, clinical and non-clinical. Future research should focus on all members of the care team to identify best practices in wellbeing promotion and burnout prevention.

Burnout is a syndrome of emotional exhaustion, depersonalization and a sense of low personal accomplishment.⁴ Professional burnout is not a form of mental illness; instead, it is distinctly linked to one's professional life and should be considered an occupational hazard. While rates of depression and other mood disorders have not significantly increased in healthcare providers in the past decade, the prevalence of professional burnout has skyrocketed. Physicians have twice the rate of emotional exhaustion as the general population and are much less satisfied with their work-life balance.⁵ Comparatively, 29% of adults in the general population report symptoms of burnout versus 40-60% of healthcare providers.⁶

Health care is by its nature a high-stakes, stressful undertaking. Unforeseen events superimposed upon chronic stress, while on the one hand professionally stimulating and rewarding, may accelerate burnout. For example, the current COVID-19 pandemic has brought the effects of acute stress on

interprofessional medical and administrative workforce teams to the fore. A recent survey study conducted in 34 hospitals in Wuhan, China during the COVID-19 pandemic, assessed mental health outcomes among health care professionals, respondents included both nurses (61%) and physicians (31%), providing front-line care to COVID-19 patients.⁷ Women working in Wuhan, including both physicians and nurses, reported the most severe mental health symptoms – anxiety, depression and insomnia – when compared to their male counterparts. In addition to the human toll, "burned out" clinicians contribute substantially to the delivery of poor-quality care.⁸ Health care systems are increasingly realizing that burnout is financially costly due to lower quality of care and increased turnover (\$4.6B annually in the US), diverting health system financial resources away from where they are most needed.^{9,10} Ultimately, burnout poses a triple threat: 1) to public health through contributing to lower quality of care, 2) to providers' physical and mental health, and 3) to healthcare organizations due to provider turnover and threat to quality of care. Given the alarming impact, strategies to address and minimize burnout as well as promote wellbeing are essential components of a highly functioning healthcare organization.

GOVERNANCE & STRUCTURE

Healthcare organizations may demonstrate varying levels of proficiency (from novice to expert) with regards to preventing provider burnout and promoting wellbeing.¹¹ The Wellbeing program at our institution (a tertiary referral, level 1 trauma center) has helped the institution progress towards a current level of "competent" proficiency, with a strategic vision to move closer to 'expert' status in the next several years. The stated vision and mission of the Wellbeing program is as follows:

We envision a culture of support, trust and respect which ensures provider joy, wellbeing and resiliency and will initiate and advance programs, projects and educational opportunities that enhance provider wellbeing and resiliency. We will promote a culture of compassion and support, interpersonal connection, life balance and joy.

Collaboration with hospital administration and other members of the care team will be pursued to achieve these goals. With this vision in mind, the guiding tenets of the Wellbeing Program are: 1) effective patient care promotes and requires provider wellbeing, 2) provider wellbeing is related to the wellbeing of the entire healthcare team, 3) provider wellbeing is a quality marker, and 4) provider wellbeing is a shared responsibility between the organization and each individual.

Over time, five categories of purpose have been identified for the Wellbeing program: Advocacy, Education, Consulting, Peer Support and Measurement/Assessment. The Wellbeing Program reports to the CMO, within the Department of Medical Affairs and the Provider Health and Resilience Committee (PHRC) serves as the steering committee. In 2014, the PHRC launched the Peer Support program, which provides confidential peer-to-peer support. Since that time, there have been many other initiatives either launched or supported by the Wellbeing Program, including a Council of Wellbeing Directors (with broad membership that represents many segments of our organization to address systemic drivers of burnout for care team members), a provider support program with confidential mental health services for medical staff, monthly discussion groups, a recurring mindfulness course, and medical staff onboarding sessions. Organizational initiatives that are currently being developed include a family and faculty organization, and resources for professional coaching and mentorship. Since 2017, the Mini-Z burnout survey has been distributed annually to the medical staff and housestaff and results are shared with leadership and staff to highlight current areas of concern for providers and advocate for ongoing wellbeing initiatives.

SPECIFIC CONSIDERATIONS

Burnout Contributors

Burnout contributors can be broadly organized into two groups: *work-related factors* and i*ndividual factors*. Research has demonstrated that work-related stressors contribute to physician burnout.¹²⁻¹⁶ Workplace factors contributing to *inefficient work processes and environments* have been linked to burnout symptoms. These include *tasks associated with the electronic health record* such as computerized physician order entry (CPOE), physician-entered comprehensive electronic documentation, and electronic instruction communication.¹⁷⁻¹⁹ The use of CPOE has been associated with 29% greater rates of physician burnout.¹⁷ Other *clerical burdens* within the work environment likely also contribute to professional burnout, especially when they do not contribute to meaning within the physicians' work activities.¹⁷⁻¹⁹

Excessive workloads, work-home conflicts, loss of support from colleagues, and *deterioration in control, autonomy, and meaning* at work have all been associated with professional burnout in physicians.^{17,20-35} Some of these

studies have demonstrated relationships between burnout and *work hours* (3% increased odds of burnout for each additional hour worked per week in multivariate analysis), *night or weekend call* (3-9% increased odds of burnout for each additional night or weekend on call in multivariate analysis), *time spent at home on work tasks* (2% greater odds for each additional hour per week in multivariate analysis), and *work-home conflicts* (greater than doubled risk of burnout when work-home conflict is present).

Meaningfulness in work is also important. Physicians who spend less than 20% of their work effort on the work activity that they find the most personally meaningful are almost three times more likely to experience professional burnout than those who spend at least 20% of their work effort engaged in activity they find meaningful.²⁴ Across different *medical specialties*, rates of burnout have consistently been demonstrated to differ, suggesting that there are unique aspects of these specialties and work environments that contribute to burnout. Physicians practicing in emergency medicine, general internal medicine, and neurology have up to a three times greater risk of experiencing burnout while those practicing in preventive and occupational medicine experience 40% lower rates of burnout.^{6,17,20,23-24,30,34} Researchers have also reported higher rates of burnout for those in *independent practice*, as compared to those in teaching hospitals or other types of employed practices, independent of their specialty, work hours, or other factors, suggesting that there are work-related drivers of burnout for private practice physicians.^{17,21,30,34,36} Evidence also suggests that the *structure of physician payment models* also influences the development of professional burnout, with those physicians practicing under incentive- or performance-based models experiencing much higher rates of burnout than those who practice in salaried structures.^{23,35}

Organizational climate factors such as negative leadership behaviors, limited interprofessional collaboration, limited opportunities for advancement, and limited social support for physicians, have also been associated with burnout.³⁷ One study of more than 2800 physicians found that a 1-point increase in the leadership score (60-point scale, higher scores = better leadership qualities) of a physician's immediate supervisor (e.g. division or department chair) was associated with a 3.3% decrease in the likelihood of burnout and a 9.0% increase in satisfaction (p < 0.001 for each).³⁷ After adjustment for other factors, this research team noted that 11% of the variance in burnout scores and 47% of the variance in satisfaction scores between work units was explained by the leadership rating of the unit's supervisor, as reported by the supervisee physicians. Additional studies suggest that organizations and leaders that provide physicians

with *increased control over workplace issues* are more likely to employ physicians with higher career satisfaction and lower reported stress.^{16,19}

Research indicates that a combination of *individual-focused and structural/organizational approaches are required to address physician burnout*, and a growing body of literature confirms that *both approaches can be effective*.^{10,39,41} These *approaches generally align with the recognized drivers of burnout*, including excessive workload, work inefficiency and lack of work support, lack of work-home integration, loss of control and autonomy, and loss of meaning in work.⁴²

Leadership, Interpersonal Connections, Professional Growth & Opportunities

[mentoring, coaching, onboarding, creating time / space for passions]

Factors relating to organizational climate, such as negative leadership behaviors, limited interprofessional collaboration, limited opportunities for advancement, and limited social support for physicians, have been associated with professional burnout.³⁷ The dimensions of leadership evaluated included the supervisor's ability to inform, engage, inspire, develop and recognize their immediate supervisees. Notably, these qualities reflect specific, teachable behaviors that leaders can work to implement or improve including such strategies as keeping people informed and updated, encouraging team members to offer suggestions and ideas for improvement, scheduling career development discussions with individual faculty members, providing feedback and coaching, and recognizing excellent work and the contributions of individual physicians. In addition, the ability of leaders to engage, empower, and inspire the physicians they are leading cannot be overlooked. Shanafelt and colleagues write, Physicians are inherently critical thinkers and problems solvers who want to be involved in assessing and improving their practice environment ... embodying these qualities requires a leader to be secure in their position, unafraid to tackle difficult problems, willing to explore diverse opinions regarding new approaches, and encouraging of others to provide input in shaping solutions."³⁷ Unfortunately, physician leaders are often selected based on qualities such as clinical acumen, scientific expertise or accomplishment, or reputation, rather than on the qualities necessary to be an effective leader.⁴³⁻⁴⁵ Investing in hiring and developing effective, inspiring, and prepared physician leaders is an important strategy that organizations can employ to support the wellbeing of their physicians. Effective leaders help to address several drivers of professional burnout in physicians, including lack of workplace support, loss of workplace autonomy, and loss of workplace control.

Physicians face unique challenges, including issues such as medical errors and malpractice suits. Their professional identities and roles are different from those of other disciplines.15,46-49 Formal and informal forms of peer support are critical to supporting physicians through these, and many other, professional challenges.⁵⁰⁻⁵³ In the past, there may have been less need to *create* opportunities for peer interaction amongst physicians as peer-to-peer connections happened more spontaneously. Changes in the ways that we communicate (e.g. electronically, vs. in-person), increased productivity expectations and documentation requirements, clerical burdens, and elimination of formal spaces for physicians to interact such as physician-only lounges have all contributed to the erosion of interpersonal connections and organically-derived peer support amongst physicians.^{15,54} As a result, organizations must consciously create opportunities for interpersonal connection amongst physicians to counter the isolation and erosion of peer support that many experience.⁵⁴ Researchers have demonstrated that interventions intended to create community at work have been successful in enhancing meaning in work and reducing professional burnout.⁵⁵⁻⁵⁶ These interventions have included strategies such as creating dedicated meeting spaces for physicians, scientists, and senior administrators to interact as an 'incubator' for collegial, peer interaction; providing physicians with one hour of protected time biweekly to meet with a small group of colleagues to discuss issues unique to the profession; and providing bi-weekly restaurant meals to small groups of physician colleagues to engage in similar discussion.⁵⁵⁻⁵⁶ Additional interventions might include group activities such as brown-bag lunches, literature and medicine discussion groups, common reads, journal clubs, outdoor activities, peeronboarding groups, and interest-specific groups like female-identifying or junior-faculty-in-academicmedicine physician groups. Whatever these interventions look like, investing in opportunities for physicians to come together and develop collegial, supportive relationships is an important strategy for mitigating the deleterious effects of professional burnout and support physician wellbeing. Such activities directly support the workplace climate, enhance social support, and nurture interprofessional collaboration – known drivers of professional burnout for physicians.

In addition to the aforementioned culture of collegiality, coaching, mentoring, and formal peer support are all distinct approaches that have previously been proposed to reduce professional burnout for physicians. Mentorship – a relationship where one individual who is more knowledgeable and experienced guides a less knowledgeable and experienced individual – is widely accepted as important to career development.⁵⁷ Collegiality, as discussed above, involves the sharing of knowledge,

experience, emotional and social support among individuals with common experiences and evidence again suggests that informal, collegial connections with colleagues is helpful in reducing burnout and improving career-related satisfaction.⁵⁵ Formal peer support programs can also aid physicians, including after a traumatic event involving patient care or a medical error.^{51,58} Collegiality, mentoring, and formal peer support most often involve physicians or others with direct health care experience. On the other hand, coaching is distinct from these other activities and involves 'inquiry, encouragement, and accountability in increase self-awareness, motivation, and one's capacity to take effective action.³⁹ Unlike the other forms of support, coaches do not need to be physicians or healthcare providers. Coaching can be tailored to the individual recipient and can be useful for navigating professional life, career choices, and the trajectory and direction of one's career. Findings from one recent study provide support for the role of professional coaching in reducing physician burnout while also improving quality of life and resilience.⁵⁹ In addition to coaching, academic onboarding programs hold promise as a method for supporting new faculty members' transitions, improving career satisfaction, and perceived institutional support.⁶⁰⁻⁶¹ Institutions should consider opportunities to implement professional onboarding and coaching as methods to directly address burnout drivers including limited interprofessional collaboration, limited opportunities for advancement, and limited social support.

Meaningfulness in work is also important. As previously noted, physicians who spend less than 20% of their work effort on activity that they find the most personally meaningful are almost three times more likely to experience burnout than those who spend at least 20% of their work effort in meaningful activity.²⁴ Interestingly, Shanafelt and colleagues report that each 1% reduction in this 20% threshold results in increased risk of burnout, however, there is a 'ceiling' effect to the benefit at 20%. This means that physicians who spend half of their time engaged in their most meaningful activities are no better off than physicians who spend 20% in that activity. Notably, the particular activity will vary from physician to physician – some may find teaching students or residents most meaningful, some will thrive as a researcher or while engaged in quality improvement work, while others will enjoy caring for especially vulnerable patients most rewarding. Using the principle of meaningfulness in work to enhance physicians' wellbeing requires that those leading physicians understand which activities are meaningful for each individual *and* that they are willing to work with the physicians they lead to identify and facilitate ways for their supervisees to be engaged in those areas. For example, a department chair may work with an individual physician interested in research to identify professional

development activities to enhance the physician's research skillset. They might then help the physician engage with clinical trials groups, find senior research mentors, or identify funding opportunities. In addition to leader engagement, enhancing meaning in work also requires that individual physicians are able to identify the aspects of practice that contribute most to their personal sense of meaning in work. This may require investment in junior faculty mentoring, self-reflection, or the opportunity to experiment with several areas (e.g. research, education, expertise development, etc.). *Harnessing the power of meaningfulness in work seems to be a powerful strategy for enhancing physician wellbeing and preventing professional burnout. Institutions should be encouraged to recognize this important opportunity and explore ways to support meaningfulness in work, directly addressing this driver of professional burnout.*

Passion at work may be related to meaningfulness and may also provide benefit in combating professional burnout. Vallerand and colleagues define passion as 'a strong tendency towards an activity that people like, is important for them, and in which they invest time and energy."⁶² They further propose a dualistic model in which there are two forms of passion: obsessive passion and harmonious passion. While obsessive passion can be harmful in that a sense of pathological dependence is developed, harmonious passion is beneficial in that the activity of interest holds a significant place in the life of the individual, but it allows for harmonizing activities with other areas of life.⁶³ While empiric evidence exploring the relationship between passion at work and physician burnout is currently not available, there is evidence supporting its utility in registered nurses. In one study testing Vallerand's dual model of obsessive and harmonious passion in nurses, obsessive passion was found to undermine recovery from the emotional exhaustion dimension of burnout while harmonious passion was observed to predict recovery experiences and prevent emotional exhaustion.⁶⁴ A second study, conducted with registered nurses from two cultures, found that in the presence of harmonious passion, satisfaction with work increased, while conflict and burnout decreased.⁶⁵ Anecdotal evidence supporting the utility of engaging in work one is passionate about as a step towards recovering from burnout has been reported by at least one author.⁶⁶ It intuitively makes sense that highly educated, motivated, and critically-thinking professionals such as physicians would want to engage with work they are passionate about, and that this engagement would counter the negative sense arising from work that does not feel meaningful. Therefore, as with meaningful work, institutions should explore ways for physicians to be more engaged with work and activities that they are harmoniously passionate about. Passions should not overtake a physician's sense of balance, but should contribute

to engagement and meaning in work, while allowing for balance with other personal and professional activities.

WELLBEING STRATEGIES Individual Strategies

The definition of wellness suggests that wellbeing is a dynamic changeable process.⁶⁷ It is a personalized approach to living life.⁶⁸ Wellbeing requires individual accountability. For those in the healthcare professions, individual wellbeing is a professional responsibility. For clinicians, burnout has negative effects on patient care, professionalism, and the clinician's own sense of wellness and safety.⁶⁹ The literature indicates that individual-focused strategies can result in meaningful reductions in burnout among clinicians.⁶⁹ In order to ensure high-quality patient care, there is an ethical obligation to ensure individual clinician health and wellbeing.⁷⁰

The costs of burnout have been associated with increased medical errors, ⁷¹⁻⁷³job attrition ⁷⁴, and high rates of clinician distress, with significantly elevated suicide rates over that of the general population.⁷⁵ Despite there being an aspect of individuality in the practice of wellness, there are some investments in employee wellness from which employers may benefit.⁷⁶ Programs that support individual wellness may lead to a reduction in health care costs and consequently health insurance premiums.¹⁰ Healthier workers may be more productive and miss fewer work days.⁷⁶ These benefits may be appealing to an employer, but also have the ability to attract and retain workers.⁷⁶

Wellness is much more than the absence of disease or stress; it includes having a sense of purpose, satisfying work, joyful relationships; a healthy body and living environment; and happiness.⁷⁷ Wellness encompasses eight interdependent dimensions: physical, intellectual, emotional, social, spiritual, vocational, financial, and environmental.⁶⁸ An individual must give attention to all the dimensions, as neglect of any one over time will adversely affect the others, and ultimately one's health, wellbeing, and quality of life.⁶⁸ These dimensions do not need to be equally balanced, or evenly/equitably addressed, but instead should strive for a personalized approach that feels most authentic to the individual.⁶⁸ Creating this individualized balance is an important part of wellness. Life demands, stress, crisis, or trauma can impact or alter an individual's sense of balance in terms of wellness.⁶⁸ This can lead to emotional, social, or physical imbalances. Establishing wellness goals and values can lead to

positive emotions, relationship satisfaction, increased energy, and a feeling of capability and engagement. ⁶⁸

Individual wellness as guided by the eight dimensions of wellness should include a personalized balance between all dimensions. The physical dimension may include good physical health habits: nutrition, exercise, and appropriate health care.78 The intellectual wellness dimension involves keeping our brains active and our intellect expanding.78 Overall, the financial wellness dimension involves things such as income, debt, and savings, as well as a person's understanding of financial processes and resources.⁷⁸ The environmental wellness dimension involves being able to be safe and feel safe.⁷⁸ This may include: accessing clean air, food, and water and preserving the areas where we live, learn, and work. The spiritual wellness dimension is a broad concept that represents one's personal beliefs and values and involves having meaning, purpose, and a sense of balance and peace.78 The social wellness dimension involves having healthy relationships with friends, family, and the community.⁷⁸ The occupational wellness dimension involves participating in activities that provide meaning and purpose and reflect personal values, interests, and beliefs.⁷⁸ The emotional wellness dimension involves the ability to express feelings, adjust to emotional challenges, cope with life's stressors, and enjoy life.⁷⁸ Individual wellness is a crucial element in overall employee performance. The consequences of burnout can be personal and include disengagement and disaffection,⁷⁹ ultimately affecting the clinician's ability to be an effective teacher, mentor, researcher, team player, and colleague.⁷⁹

Organizational Strategies

The current focus on provider wellbeing is reminiscent of the focus on quality of care following the release of the IOM's reports "To Err is Human" and "Crossing the Quality Chasm".⁸⁰⁻⁸¹ Following the release of these two reports two decades ago, many healthcare organizations implemented rigorous quality and safety programs. Similarly, enhancing provider wellbeing through intentional, systematic development of wellness metrics and targeted initiatives is the natural result of work that has been done across the globe in the last decade by national organizations and thought leaders in response to the burnout crisis facing healthcare providers. Fostering and sustaining a culture of wellbeing is critical to maintaining the health of providers who are an essential component to a healthy, productive, high quality organization.

Healthcare organizations face many novel challenges to operational and financial success which can be parsed into external or internal threats. External threats include financial pressures from declining reimbursements, increased expenses associated with implementation and optimization of electronic health records, public reporting of quality metrics, maintaining compliance with external regulatory bodies and provider and nursing shortages. Providers often find themselves with increased expectations for patient visits, charting, and clerical burden without increases in professional time to accomplish these tasks. These growing requirements have not been met with a commensurate increase in staff to accomplish the work and the ensuing need to "do more with less" has had predictable effects on staff morale and satisfaction.⁵⁸ Internal organizational challenges which were previously manageable have become less tolerable as the practice of medicine has become more complex. Control over workload, interpersonal conflict, EMR/productivity, work-home balance, work-day structure, values mismatch, leadership concerns and staff support are notable features of professional satisfaction and are tested by many of the external threats to healthcare organizations.

Strategies for wellbeing enhancement must be rooted in the recognition of the roles that both organizations and individuals assume for promoting professional satisfaction. Healthcare organizations frequently reflect the issue back to providers by expecting them to pursue strategies for wellness outside of work, which contributes to further moral injury by blaming individuals who are subject to the consequences of poorly designed systems. A more mature system design will acknowledge that provider wellness is largely impacted by culture and efficiency of resources and will encourage the development of strategic goals to enhance wellness, engagement and professional satisfaction.⁸²

In 2017, Shanafelt and Noseworthy detailed a comprehensive plan for organizations to promote provider wellbeing. The foundation of successful wellbeing programs begins with deconstructing two erroneously held beliefs about provider wellbeing: 1) that provider wellbeing is inherently at odds with achieving co-existing organizational objectives and 2) that the return on investment is poor.¹⁵ In contrast, it is clear that organizational goals may only be fully realized through the development and promotion of a healthy staff, including providers, and that many initiatives which promote wellbeing and professional satisfaction are relatively inexpensive, particularly when considered in light of the return on investment (less provider turnover, higher quality of care, less medical errors).¹¹

The nine strategies established by Shanafelt and Noseworthy for wellbeing enhancement are a comprehensive and practical roadmap that is evidence based and impactful at all levels of consideration; individually, for work units, and organizationally. For practical purposes of this manuscript, the strategies are only highlighted as follows and full descriptors can be found in the original manuscript.¹⁵ Strategies include: 1) acknowledge and assess the problem, 2) harness the power of leadership, 3) develop and implement targeted interventions, 4) culminate community at work, 5) use rewards and incentives wisely, 6) align values and strengthen culture, 7) promote flexibility and work-life integration, 8) provide resources to promote resilience and self-care, and 9) facilitate and fund organizational science. The creation of a culture of wellbeing and promotion of provider satisfaction is critical to organizational success, high quality patient care and individual provider health. Although specific interventions may vary by specialty, organizational size and need, it is clear that promoting wellness aligns with the quadruple aim and should be adopted in the pursuit of providing compassionate, high quality and safe patient care.

PROFESSIONALISM

"Knowing is not enough; we must apply. Willing is not enough; we must do." -- Goethe

The World Health Organization International Classification of Diseases defines *burnout* as an *occupational* (employment or unemployment) syndrome in three dimensions – exhaustion, mental distance from one's *profession*, and loss of *professional* efficacy - resulting from workplace stress.⁸³ While much attention has been directed to physician and nursing burnout, all participants in teambased interprofessional care, including patients and health care administration, are vulnerable to the resultant effects of burnout. Unprofessional conduct, such as disruptive behavior with patients and colleagues, lateral violence, and sexual harassment, contributes to burnout; such conduct may also be manifested by health care professionals experiencing burnout.

Before addressing professionalism relative to burnout, it is important to recognize the context of unwanted unprofessional behaviors in the health care setting. Care is increasingly delivered by interprofessional care teams with management (service lines) where team members are employed and subject to the policies, regulations, technology, responsibility to and authority of the employer. With multiple professions working together in team-based, patient-centered and value-based care,

professional conflicts of interest, including burnout, will arise and must be recognized, understood and managed well for the benefit of patients, the health system, the public and the profession.

One of the challenges to team-based interprofessional care is that each discipline within the health care team has a set of competencies uniquely suited to graduates of their discipline. For example, in medicine, the Accreditation Council for Graduate Medical Education (ACGME) is responsible for setting educational standards, knowledge and skills, for graduate medical education. In 1999, the ACGME implemented six general competencies, applicable to *every* specialty during residency or fellowship training. One of these six competencies is *professionalism*.⁸⁴ It is worthy of noting that although professionalism was identified as a core competency two decades ago, it remains a significant driver of burnout today.

In this era of *interprofessional* care, individual disciplines, e.g., nursing, medicine, and administration, are typically siloed within their institutions, with each having discipline-specific codes of professional conduct developed independently without participation from other interprofessional disciplines. Pertinent examples of published professional standards follow:

Nursing:

The American Nurses Association (ANA-2015) Code of Ethics (with interpretative statements) clearly defines the professional role of nursing in Provision 6 of the Code of Ethics: "The nurse, through individual and collective effort, establishes, maintains, and improves the ethical environment of the work setting and conditions of employment that are conducive to safe, quality health care." ⁸⁵

Medicine:

• One prominent working professionalism definition is from the American Board of Medical Specialties (ABMS), the parent organization of 24 allopathic medical certifying boards, such as medicine, surgery, and emergency medicine. ABMS has a large stake in professionalism in its role of setting initial and maintenance of certification (MOC) professional standards:

Medical Professionalism (ABMS) is a belief system in which group members ("professionals") declare ("profess") to each other and the public the shared competency standards and ethical values they promise to uphold in their work and what the public and individual patients can and should expect from medical professionals.⁸⁶

 Medical Professionalism in the New Millennium: A Physician Charter - A Project of the ABIM Foundation, ACP–ASIM Foundation, and European Federation of Internal Medicine, published in 2002, is another prime definition of professionalism in medicine. The Charter has been translated and published by many international medical journals, has been endorsed by >100 medical organizations and is widely used as a foundational medical education professionalism resource.

> As members of a profession, physicians are expected to work collaboratively to maximize patient care, be respectful of one another, and participate in the processes of self-regulation, including remediation and discipline of members who have failed to meet professional standards. The profession should also define and organize the educational and standard-setting process for current and future members. Physicians have both individual and collective obligations to participate in these processes. These obligations include engaging in internal assessment and accepting external scrutiny of all aspects of their professional performance.⁸⁷

Social Work:

• The National Association of Social Workers ((NASW), revised and affirmed (2017)) the NASW Code of Ethics. This code provides a guide to deal with ethical issues in clinical practice and to provide a basis for adjudication. Social workers may be particularly helpful in addressing particularly challenging patient and patient/family interactions.⁸⁸

Hospital and Health System Administration:

• The Healthcare Leadership Alliance (HLA) professionalism competency is:

... the ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning and improvement.⁸⁹

If discipline-specific professional standards are not sufficient to manage unprofessional workplace conduct within a system of care, how best then to come to a common understanding and agreement of professionalism across the interprofessional disciplines, i.e., transdisciplinary professionalism? Can a trans-disciplinary professional conduct standard help to foster professional conduct across all team disciplines?

To address professionalism in team-based interprofessional care, the National Academy of Medicine (NAM, formerly the Institute of Medicine (IOM)), convened a workshop - Establishing

Transdisciplinary Professionalism for Improving Health Outcomes - in 2013. This workshop defined *transdisciplinary professionalism*:

Transdisciplinary professionalism leads to a social contract shared by all the professions through a unifying set of beliefs and behaviors that are professed to the public.⁹⁰

At this NAM workshop, it was noted that while there are similarities and differences among each of the health professions' social contracts, the underlying principles of *all* health care social contracts are the same, encompassing professionalism throughout health care and wellness for patients and those caring for patients, emphasizing cross-disciplinary responsibility and accountability.

Individual and collective integrity are at the heart of professionalism. Although it is beyond the scope of this paper, the NAM workshop also addressed how, in interprofessional care and education, to make professionalism *real* in the daily practice of health care and wellness. Key concepts are leadership and accountability: leadership should be active, prospective and exercised at multiple levels throughout the health care setting - hospital, health system and clinics - wherever care is delivered. Interprofessional care (and education) should be recognized as such, including, within institutions, explicit transdisciplinary professionalism agreements - an institutional social contract. While each health care professional is accountable for her/his own professional behavior, the interprofessional team must also be accountable for their team's professional conduct. There should be established methods to recognize, manage and support team members experiencing burnout. Unprofessional behaviors, such as lateral violence, harassment, including sexual and racial, and disruptive behaviors should be identified and addressed through established institutional processes of remediation and discipline. Although each team member may come to interprofessional care by differing educational routes, continuing professional development (CPD) across disciplines should have common objectives. Such innovation may be disruptive and require courage, conviction, and the ability to embrace uncertainty and complexity.

Although this paper has emphasized both individual and team professionalism, it is vitally important to recognize that we care for patients and each other within *systems* of care, as the 1999 Institute of Medicine (IOM) report demonstrated in the seminal report, *To Err is Human.*⁸⁰ The National Academies of Sciences, Engineering, and Medicine addressed clinician burnout from a system

Submitted April 2021

perspective in a report titled: Taking Action Against Clinician Burnout: A Systems Approach to Professional Wellbeing. There are two key recommendations in this report:

- Create Positive Work Environments: Transform health care work systems by creating positive work environments that prevent and reduce burnout, foster professional wellbeing, and support quality care. Examples of improvement to the work environment might be improving practice efficiency, work-life balance, scholarship, and advancement rather than a reliance on productivity bonuses. The electronic medical record (EMR) has been identified as a system challenge influencing burnout.
- Create Positive Learning Environments: Transform health professions education and training to optimize learning environments that prevent and reduce burnout and foster professional wellbeing – continuous professional development (CPD) and lifelong learning.⁹¹

Our understanding of and remedies for burnout are often expressed as health system policy directives and not in humanistic language. One approach to understanding the human toil of burnout is through the medical humanities, e.g., literature, history, ethics and art, profiled by O'Neil and colleagues in an article published by the *Royal College of Physicians* titled: Mainstreaming Medical Humanities in Continuing Professional Development and Postgraduate Training.⁹²

Two additional continuing professional development opportunities (and perhaps necessities) beyond the initial scope of this white paper are: 1) Preserving the professional identity of each clinician in team-based care; and 2) developing a distributive leadership model within the care team. For example, if disruptive behavior with patients and families is a concern, the social worker on the team may be best trained and able to be the team lead in that setting. In the end, the care of patients and for each other is about understanding and appreciating the human condition, in this case burnout. Everyone is affected by burnout – clinicians experiencing burnout and their colleagues, patients, families and friends – and burnout, in human terms, is expensive.

DIVERSITY, EQUITY & INCLUSION

Diversity, equity and inclusion is inextricably connected to the wellbeing of health care professionals. A culture of inclusion is protective against burnout and supports engagement; a culture of bias -- implicit or explicit, subtle or overt – contributes to burnout.

While diversity is about ensuring multiple perspectives are "at the table," inclusion is about ensuring those at the table are seen, heard, and valued. In an inclusive and equitable workplace, leaders value diversity and seek out opinions from a cross-section of people to ensure opinions are fully representative of the entire team, and also heard and considered. It's not enough to increase head count and expect a positive return, inclusion gives everyone an opportunity to participate and to grow and advance within the organization. In inclusive environments there is not a one-size-fits all approach; diverse needs are considered offering innovative and flexible solutions that value the whole person.

Cultures that are inclusive and equitable lead to a sense of belonging which increases engagement, professional satisfaction, loyalty and trust. While there are numerous factors that can drive burnout, there are key indicators that directly correlate with inclusion: sufficient personal control or authority to pursue work goals, active participation in decision making, intrinsic social reward, quality of social interactions and workgroup cohesion, and a direct supervisor who is fair and supportive.⁹³⁻⁹⁹

The inverse, a culture that is exclusive, biased and inequitable has detrimental effects for everyone in the workforce. Negative comments divide the team of professionals making it more difficult to forge shared goals and to cooperate on reliable processes. The author Daniel Pink reminds us that workplace engagement – professional satisfaction – comes from professional autonomy in mastering complex ideas and processes to achieve a worthy purpose. A team that does not exhibit mutual respect towards its members' strengths and clinical interests cannot function at this high level, and everyone suffers. A key feature of burnout is the feeling that there is a lack of meaning to one's work.

Creating a diverse, inclusive and equitable environment is a systemic effort that requires a change in leadership approach and mindset coupled with interventions to increase diversity and to ensure equity in decision making and processes. It requires a structured approach that reduces bias and increases access and transparency.

Workforce members who experience bias because of factors such as race, ethnicity, gender, sexual orientation, sexual identity or religion are at a heightened risk of burnout. Even with the best intentions, bias undermines efforts, and prevents inclusion resulting in a difficult and stressful work environment. In short, a biased work environment exacerbates stress, demoralization and burnout among those directly experiencing bias, and those who witness it, who often feel unprepared or unable to mitigate it.

The impact of burnout and a culture that is not inclusive reach beyond the workforce. It also negatively impacts our patients and our surrounding communities. A recent study found that symptoms of burnout among residents correlated with an increase in both implicit and explicit racial bias toward patients.¹⁰⁰ The effects of unconscious bias on patient care are well documented: in brief, unconscious bias leads to cognitive processing mistakes that results in a higher prevalence of the wrong diagnosis and the wrong treatment for black and brown patients, even among well-intentioned health care professionals who deny explicit bias.¹⁰¹ The combination of bias and burnout is even more detrimental to patients than either element alone.

At the individual level, the recipe for combating unconscious bias is to become aware of it and then actively employ cognitive strategies to combat it (e.g., positive stereotyping). Practicing new cognitive strategies takes energy and engagement – energy that comes from the shared purpose of excellent patient care – and this energy is greatly diminished in persons experiencing burnout. Even learning about the issues and reflecting on how unconscious bias affects one's own performance requires education and reflection time, in short, a little time away from direct patient care. A workplace without these opportunities contributes to both burnout and bias.

At the system level, root cause interventions should be designed and implemented to increase inclusion and wellbeing. Bias and intolerance detract from a culture of community and collaboration, and thereby is a significant factor in burnout among providers and staff. Put simply, a culture of inclusion is protective against burnout and supports engagement. Strategies and interventions should be inclusive of thoughts, ideas as well as needs; an approach that considers diversity, equity and inclusion will challenge unwritten rules and expectations and seek to provide innovative solutions. Solutions will not be designed in a vacuum, rather the perspectives of those experiencing burnout will be considered and strategies will be developed with them, not in insolation. It is hard work, and it is uncomfortable work as strategic DEI challenges the status quo. With burnout on the rise, it is

imperative to not only consider DEI, but to ensure it is at the foundation of any burnout mitigation strategy.

WELLBEING IN TRAINING

Medical school is a particularly challenging contributor to burnout. Medical school inherently exposes students to many novel stressors and it is also imperative that clinical training provides a safe, supportive and dynamic environment to ensure the wellbeing of future physicians. Students entering medical school have lower rates of mental illness as compared to their non-medical peers, but by graduation and throughout residency, their incidence of mental illness dramatically increases.¹⁰² Throughout their careers, physicians have notably higher rates of suicide completion than the general public.¹⁰³

It is important for organizations to support trainees' wellbeing and to offer the psychological, social and physical resources that trainees need to meet the challenges associated with achieving advanced medical education.¹⁰⁴ As previously noted, wellbeing encompasses eight interdependent dimensions: physical, intellectual, emotional, social, spiritual, vocational, financial, and environmental. The approach to enhancing trainee wellbeing must therefore be multi – faceted. The learning environment should allow trainees to thrive personally and professionally while supporting their health and wellbeing. The environment should also be inherently safe and devoid of stressors such as bullying, excessive shift durations, or a hidden curriculum that perpetuates destructive behaviors or promotes discrimination of any kind.

It is important for trainees to participate and have a voice in addressing concerns impacting their education as there is a shared responsibility between students and residents with medical schools, residency programs and clinical rotation sites. Individuals must take ownership for physical and emotional/mental self-care (exercise, healthy eating, sleep, prioritizing time with friends/family and seeking help as needed) with the institution facilitating such measures, such as easy access to healthy meal choices, regular exercise and protected sleep periods. Organizations should routinely assess wellbeing and provide resources for trainees who experience anxiety, stress, depression or other concerns related to health and wellbeing while on rotation.

The structure of the clinical rotations plays a role in this overall process, with many elements required. Trainees need peer support to develop healthy communities of practice. This includes adequate rotation length or longitudinal clerkships to create support networks; continuity of clinical supervision to support learning and personal development with the additional benefit of increasing sense of connectivity and wellbeing. Teaching and modeling methods for reaching out to colleagues in need is vital to the success of a clinical environment designed to progressively challenge individuals while they learn to handle difficult encounters. These include, but are not limited to, breaking bad news; compassionate listening, communicating with distressed/angry/suicidal patients and death. Simulation provides a mechanism for teaching and debriefing in real time in a non – judgmental/non – punitive setting.

Organizations must offer opportunities to learn strategies for adapting to stress. These opportunities should be easy to identify and attend and include mind – body awareness along with mindfulness-based stress reduction programs, with an emphasis on creating skills the learners carry through their careers. Topics to cover should include self – care in all previously highlighted eight dimensions of wellness.

Barriers often occur to seeking help and it is important to acknowledge that stigmas exist around seeking help for mental health. It is critical to create and maintain an environment in which trainees feel supported and safe. Confidentiality is of the utmost importance and the institution needs policies allowing trainees to seek out necessary help (absentee policy). Easy access to diagnostic, preventive and therapeutic health services is a standard of the LCME – Liaison Committee on Medical Education.

It is important to provide professional development for those tasked with teaching learners. These foundational educators must be knowledgeable on contemporary methods to promote wellbeing; understand how to navigate difficult conversations with learners; lead by example and encourage staff to embrace the goal of improving wellbeing; provide timely, appropriate feedback and grading of learners; avoid promoting poorly equipped trainees; participate in trainees' career development; educate on the business of medicine; address faculty with problematic behavior and be certain learners feel valued.

For any program to succeed there needs to be ongoing assessments along with quality improvement. Organizations should study the impact of local interventions on how to best promote healthy choices in a fertile learning environment while giving students the necessary tools to carry their learned habits and practices through residency into post – graduate careers. The process is certainly a continuum and is highly individualized.

CONSIDERATIONS IN POST-GRADUATE CAREER

Wellbeing is a dynamic, ongoing, evolving process which requires timely reassessment at different stages and circumstances in a physician's career. Learning and adapting wellbeing strategies must continue past training. As a doctor completes training and embarks upon their career as an attending physician, they face new pressures and challenges. This often includes moving to a novel environment while learning the intricacies of being a contributing member of a practice. Scant, formal training exists for physicians on how to navigate the business side of medicine yet hospitals and corporations expect them to instantly be efficient at generating revenue. For physicians to grow into their role, it is important for organizations to have systematic processes supporting both employed and independent providers, while individuals recognize a need to share responsibility for promoting wellbeing.

While physician wellbeing remains a shared responsibility, organizational-focused efforts are recognized as a highly effective strategy.^{10,41} Five areas of intervention to consider, based upon the Collaborative for Healing and Renewal in Medicine (CHARM), include physical health, emotional health, organizing facilitated groups, active self – improvement and organizational transformation.¹⁰⁴

Physical health requires responsible behaviors and processes put forth by both the individual and the institution employing them. Physicians need life – long strategies as they transition through different points of their careers. For example, during residency institutions need to foster autonomy, build the clinical competence of learners, develop strong social skills and emphasize the importance of adequate sleep coupled with time away from work.¹⁰⁵ New attendings may then build upon these skills as they begin practicing without supervision.

Organizations should consider novel ideas to meet these needs, that are tailored to the organization's population, process and culture. This is a dynamic ongoing evolving process that requires regular

reassessment. Ideas include: creating a dedicated float pool to assist in covering care team members' unexpected life events; creating a network for providers to treat other providers with easy access while on the main campus; setting clear duty expectations while on call, providing access to dedicated call rooms, being sensitive to shift work disorder and how it negatively impacts certain individuals, reinforcing the importance of proper nutrition and providing easy access to healthy food choices, facilitating exercise by removing barriers and incentivizing physical activity (consider partnering with non – profit local organizations).¹⁰⁶⁻¹⁰⁸

Physicians tend to downplay the importance of nurturing their emotional health. Benefits exist to incorporating mindfulness-based stress reduction (MBSR), including but not limited to improving patient communication, reducing burnout and increasing meaningfulness in day to day work.¹⁰⁹ MBSR is effective even if done in short intervals during the workday. Programs may provide time and resource efficient ways to lessen clinician stress and burnout symptoms while also improving work satisfaction.¹¹⁰

The practicing community provides important networks for physicians to utilize as they develop the necessary skill sets to flourish as an attending physician. Facilitated groups allow physicians to avoid isolation, congregate in meaningful ways to discuss and navigate challenging situations and debrief difficult situations or bad outcomes in a non – judgmental environment. Physicians may also benefit from stress management and resiliency training, employing effective coping strategies via reflection, either independently or in groups, and via meetings to promote and sustain satisfaction (COMPASS).^{55-56,111} COMPASS (colleagues meeting to promote and sustain satisfaction) involves bi – weekly lunchtime interventions to discuss work – life balance, medical mistakes, meaning in work and resiliency. This intervention decreased burnout by leading to improved quality of life, sense of meaning, job satisfaction, social isolation, depersonalization and personal accomplishment.

The American Balint Society is a group of clinicians, often physicians, meeting regularly to present clinical cases in an effort to improve and better understand the clinician – patient relationship. It provides another resource for physicians to explore in efforts to increase satisfaction through work.¹¹²

Active self – improvement requires facilitation by the institution and includes coaching junior faculty as they transition from training programs. Coaching (as opposed to having a mentor) may allow for

better adaptation of positive behaviors, promotion of self – reflection, emphasis on individual strengths, decrease in self – deprecating thoughts and increase in sense of purpose and engagement. Organizations should offer faculty development programs to assist junior faculty as they take on the role of clinician educator. Palliative care and spiritual care colleagues, as well as others with content expertise can be a resource for collaboration with regards to communication skills, especially with difficult or end of life decision making.

Ultimately, in order to achieve success implementing cultural change, the organization needs to support cultural transformation with commitment to developing and maintaining an evolving strategic plan. Further, to avoid a top-down mandate, physicians need to be engaged in developing the organizational mission and wellness strategies, with an emphasis on choice, developing a sense of camaraderie and the need to strive for excellence at work.¹¹³ The onus must not be put on physicians only but create a collaborative environment with protecting providers' time on a regular basis to improve empowerment and engagement.⁵⁵ Further, the number of continuous days on service must be limited as longer duration aligns with higher burnout rates.

Health care systems are incredibly complex and must adapt to constant change. In order for the health care delivery system to function efficiently, it must focus on multiple areas with one being the implementation of programs to support the wellbeing of providers. Without organizational initiatives, the dangers of burnout remain significant, even with the best efforts put forth by individual providers.

MENTAL HEALTH & SUBSTANCE USE DISORDERS

Burnout is a precursor to substance use disorder and mental illness in physicians, specifically anxiety, depression and suicidal ideation.¹¹⁴ Studies have shown increased rates of alcohol use disorders amongst physicians when compared to the general population. Specifically, Jackson et al. found an increased risk of alcohol use disorder in female physicians (21.4%) when compared with male physicians (12.9%) and these rates are considerably higher than in the general US population.¹¹⁴ Medical students are reported to meet criteria for alcohol use disorder at twice the rate of US college educated adults aged 22-34.¹¹⁴⁻¹¹⁶ Alcohol use disorder in physicians is strongly associated with younger age, increase in hours worked, burnout, depression and decreased quality of life and Oreskovich et al. also found that alcohol use disorder in physicians was associated with lower career satisfaction and

increased medical errors.¹¹⁵ Medical students and physicians with alcohol use disorder have a higher incidence of burnout, low mental and emotional quality of life and depression.¹¹⁴⁻¹¹⁶

Physicians are not immune to the development of mental illness and have higher rates of anxiety, depression and suicidal ideation than the general public. The seeds of this appear to start early in medical education and training, with up to 27% of medical students and 29% of residents screening positive for depressive symptoms (versus 14-21% of the general public) and 57% of medical students experiencing moderate to severe anxiety symptoms (versus rates of less than 10% (depression) and less than 20% (anxiety) in the general public).¹¹⁷ Alarmingly, 11% of medical students report suicidal ideation within the past 2 weeks to 12 months. Unfortunately, the stigma associated with mental illness and fears about licensing restrictions, professional reputation or effect on career prevent many students, residents and attending physicians from seeking treatment. Overall, up to 40% of physicians indicate they are reluctant to seek mental health care due to repercussions to their medical license.¹¹⁷ In a 2008 national study of nearly 8000 surgeons, 6.3% reported suicidal ideation in the prior 12 months, but only 26% had sought care, while 16% had self-prescribed antidepressants and nearly 60% did not seek care at all due to concerns about impact on their licensure and ability to practice medicine.⁷² The impact of this stigmatized behavior is considerable, given that the suicide risk is 130% higher in female physicians and 40% higher in male physicians than for the general population.

Tragically, the absolute number of physician suicides in the US is approximately 400 per year. Certain specialties may be at significantly higher risk with heavy workload and working hours, long shifts with unpredictable hours and chronic sleep deprivation as well as the constant exposure and immersion in life and death emergencies. Self-reporting of symptoms associated with burnout, depression, PTSD and suicidal ideation is limited and may indicate a higher prevalence than what is reported in the limited literature on these subjects. Under-reporting is likely attributable to the stigma associated with mental illness as well as fear of ramifications with licensure.¹¹⁷ Institutions/employers must contribute to screening, assessment and referral as well as the de-stigmatization of mental illness particularly amongst physicians and HCP.

CONCLUSION

Organizations should be simultaneously concerned about the current state of wellbeing and energized by current efforts for care team health and professional satisfaction. Organizations should adopt the quadruple aim (care team wellbeing, healthy communities, patient-centered care and affordable care) for informing annual strategic goals and interdisciplinary care team wellbeing should be of equal importance to the organization's overall mission as the other three elements of the quadruple aim. Despite this, many organizational challenges threaten to undermine critical elements of care team wellbeing. Medical staff and residents at this organization report high levels of dissatisfaction and burnout that mirrors national trends. Data from 2020 indicated that overall, 39% of our respondents were experiencing one or more symptom of burnout which is consistent with the most recent results from national sources.³ Our organization has five years of survey data with over 2700 responses, as well as insight gained from our annual engagement surveys. The data is consistent, and the message is clear, burnout continues to threaten the wellbeing of providers, patients and our organization. An effective wellbeing strategy that follows the guidelines outlined in this paper will inspire change in the culture of medicine, and dismantle the stigma and obstacles to seeking help. Professional satisfaction and the quality of healthcare will both be enhanced as healthcare providers are enabled to return to the foundational elements of practicing medicine, "to cure sometimes, to relieve often and to comfort always."1

REFERENCES

- Lewin-Fetter V. Medicine of the person: the lost art of medicine. *The Lancet.* 2008; 371(9615): 812.
- Smith, CM. Origin and Uses of Primum Non Nocere Above All, Do No Harm! <u>The Journal</u> of <u>Clinical Pharmacology</u>. 2005; 45(4): 371–77.
- "Death by 1000 Cuts"; Medscape National Physician Burnout and Suicide Report 2021. https://www.medscape.com/slideshow/2021-lifestyle-burnout-6013456
- 4. Schaufeli WB, Hoogduin K, et al. On the clinical validity of the Maslach Burnout Inventory and the burnout measure. Psychol Health 2001;16:565-582.
- Shanafelt TD, West CP, Sinsky C et al. Changes in Burnout and Satisfaction with Work-Life Integration in Physicians and the General US Working Population Between 2011 and 2017. *Mayo Clinic Proceedings* 2019; 94(9): 1681-1694.
- Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in burnout and satisfaction with worklife balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc.* 2015a; 90: 1600-1
- Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*. 2020;3(3):e203976.
- Williams ES, Manwell LB, Konrad TR, Linzer M. The relationship of organizational culture, stress, satisfaction, and burnout with physician-reported error and suboptimal patient care: Results from the MEMO study. Health Care Management Review. 2007;32(3):203–212.
- Han S, Shanafelt TD, Sinsky CA et al. Estimating the Attributable Cost of Physician Burnout in the Unites States. *Annals of Internal Medicine* 2019; 170(11): 784-790.
- 10. 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;177:195-205.
- Shanafelt TD, Goh J, Sinsky CA. The Business Case for Investing in Physician Wellbeing. JAMA Intern Med 2017; 177(12): 1826-1832.
- Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory Manual*, 3rd ed. Palo Alto, CA: Consulting Psychologists Press, 1996.
- 13. Schaufeli WB, Leiter MP, Maslach C. On the clinical validity of the Maslach burnout inventory and the burnout measure. *Psychol Health.* 2001; 16: 565-82.

- 14. Williams ES, Manwell LB, Konrad TR, Lizner M. The relationship of organization culture, stress, satisfaction, and burnout with physician-reported error and suboptimal patient care: results from the MEMO study. *Health Care Manage Rev.* 2007; 32: 203-12.
- Shanafelt TD, Noseworthy JH. Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout. *Mayo Clin Proc.* 2016; 92: 129-46.
- 16. Williams ES, Konrad TR, Lizner M, et al. Physician, practice, and patient characteristics related to primary care physician physical and mental health: results from the Physician Worklife Study. Health Serv Res. 2002; 37: 119-41.
- 17. Shanafelt TD, Dyrbe LN, Sinsky C, et al. Relationship between clerical burned and characteristics of the electronic environment with physician burnout and professional satisfaction. *Mayo Clin Proc.* 2016; 91: 836-48.
- 18. Dyrbe LN, West CP, Burriss TC, Shanafelt TD. Providing primary care in the United States: the work one one sees. *Arch Intern Med.* 2012; 172: 1420-1.
- 19. Sinsky C, Colligan L, Li l, et al. Allocation of physician time in ambulatory practice: a time and motion study in 4 specialties. *Ann Intern Med.* 2016; 165: 753-60.
- 20. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med.* 2012a; 172: 1377-85.
- Shanafelt TD, Sloan JA, Habermann TM. The well-being of physicians. *Am J Med.* 2003; 114: 513-9.
- Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet*. 2009; 374: 1714-21.
- 23. Shanafelt TD, Balch CM, Beauchamps GJ, et al. Burnout and career satisfaction among American surgeons. *Ann Surg.* 2009a; 250: 463-71.
- 24. Shanafelt TD, West CP, Sloan JA, et al. Career fit and burnout among academic faculty. *Arch Intern Med.* 2009b; 169: 990-5.
- Campbell DA Jr., Sonnad SS, Eckhauser FE, Campbell KK, Greenfield LJ. Burnout among American surgeons. *Surgery*. 2001; 130: 696-702.
- 26. Bertges Yost W, Eshelman A, Raoufi M, Abouljoud MS. A national study of burnout among transplant surgeons. *Transplant Proc.* 2005; 37: 1399-401.
- 27. Rutledge T, Stucky E, Dollarhide A, et al. A real-time assessment of work stress in physicians and nurses. *Health Psychol.* 2009; 28: 194-200.

- 28. Balch CM, Shanafelt TD, Dyrbye L, et al. Surgeon distress as calibrated by hours worked and nights on call. *J Am Coll Surg.* 2010; 211: 609-19.
- 29. Alarcon GM. A meta-analysis of burnout with job demands, resources, and attitudes. J Vocat Behav. 2011; 79: 549-62.
- 30. Dyrbye LN, Shanafelt TD, Balch CM, Satele D, Sloan J, Freischlag J. Relationship between work-home conflicts and burnout among American surgeons: a comparison by sex. *Arch Surg.* 2011a; 146: 211-7.
- 31. Dyrbye LN, West CP, Satele D, Sloan J, Shanafelt TD. Work/home conflict and burnout among academic internal medicine physicians. *Arch Intern Med.* 2011b; 171: 1207-9.
- 32. Richter A, Kostova P, Baur X, Wegner R. Less work: more burnout? A comparison of working conditions and the risk of burnout by German physicians before and after the implementation of the EU Working Time Directive. *Int Arch Occup Environ Health.* 2014. 87: 205-15.
- 33. Hertzberg TK, Ro KI, Vaglum PJ, et al. Work-home interface stress: an important predictor of emotional exhaustion 15 years into a medical career. *Ind Health.* 2016; 54: 139-48.
- Shanafelt TD, Oreskovich MR, Dyrbye LN, et al. Avoiding burnout: the personal health habits and wellness practices of US surgeons. *Ann Surg.* 2012b; 255: 625-33.
- Shanafelt TD, Gradishar WJ, Kosty M, et al. Burnout and career satisfaction among US oncologists. J Clin Oncol. 2014; 32: 678-86.
- 36. Dyrbye LN, Varkey P, Boone SL, Satele DV, Sloan JA, Shanafelt TD. Physician satisfaction and burnout at different career stages. *Mayo Clin Proc.* 2013; 88: 1358-67.
- Shanafelt TD, Gorringe G, Menaker R, et al. Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin Proc.* 2015b; 90: 432-40.
- Linn LS, Brook RH, Clark VA, Davies AR, Fink, Kosecoff J. Physician and patient satisfaction as factors related to the organization of internal medicine group practices. *Med Care.* 1985; 23: 1171-8.
- 39. Regeher C, Glancy D, Pitts A, LeBlanc VR. Interventions to reduce the consequences of stress in physicians: a review and meta-analysis. *J Nerv Ment Dis.* 2014; 202: 353-9.
- 40. Ruotsalainen JH, Verbeek JH, Marine A, Serra C. Preventing occupational stress in healthcare workers. *Cochrane Database Syst Rev.* 2015; 4: CD002892.
- 41. West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet.* 2016; 388: 2272-81.

- 42. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences, and solutions. *J Intern Med.* 2018; 283: 516-29.
- Stoller JK. Commentary: recommendations and remaining questions for healthcare leadership training programs. *Acad Med.* 2013; 88: 12-15.
- 44. Stoller JK. Developing physician-leaders: a call to action. J Gen Intern Med. 2009; 24: 876-78.
- 45. Lobas JG. Leadership in academic medicine: capabilities and conditions for organizational success. *Am J Med.* 2006; 119: 617-21.
- 46. Balch CM, Oreskovich MR, Dyrbye LN, et al. Personal consequences of malpractice lawsuits on American surgeons. *J Am Coll Surg.* 2011; 213: 657-67.
- Meier DE, Bac AL, Morrison RS. The inner life of physicians and care of the seriously ill. JAMA. 2001; 286: 3007-14.
- 48. Christensen JF, Levinson W, Dunn PM. The heart of darkness: the impact of perceived mistakes on physicians. *J Gen Intern Med.* 1992; 7: 424-31.
- 49. Waterman AD, Garbutt J, Hazel E, et al. The emotional impact of medical errors on practicing physicians in the United States. *Jt Comm J Qual Patient Saf.* 2007; 33: 467-76.
- 50. Hu YY, Fix ML, Hevelone ND, et al. Physicians' needs in coping with emotional stressors: the case for peer support. *Arch Surg.* 2012; 147: 212-17.
- Shapiro J, Galowitz P. Peer support for clinicians: a programmatic approach. *Acad Med.* 2016; 91: 1200-04.
- 52. Wallace JE, Lemaire J. On physician well being: you'll get by with a little help from your friends. Soc Sci Med. 2007; 64: 2565-77.
- 53. Pratt SD, Jachna BR. Care of the clinician after an adverse event. Int J Obstet Anesth. 2015; 24: 54-63.
- 54. Novack DH, Suchman AL, Clark W, Espstein RM, Najberg E, Kaplan C. Working Group on Promoting Physician Personal Awareness. Calibrating the physician: personal awareness and effective patient care. *JAMA*. 1997; 278: 502-9.
- 55. West CP, Dyrbye LN, Rabatin JT, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. *JAMA Intern Med.* 2014; 174: 527-33.
- 56. West CP, Dyrbye LN, Satele D, Shanafelt TD. A randomized controlled trial evaluating the effect of COMPASS (Colleagues Meeting to Promote and Sustain Satisfaction) small group

sessions on physician well-being, meaning, and job satisfaction. J Gen Intern Med. 2015; 30: s89.

- Sambunjak D, Straus SE, Marusic A. Mentoring in academic medicine: a systematic review. JAMA. 2006; 296: 1103-15.
- 58. Shanafelt TD, Lightner DJ, Conley CR, et al. An organizational model to assist individual physicians, scientists, and senior health care administrators with personal and professional needs. *Mayo Clin Proc.* 2017; 92: 1688-96.
- Dyrbye LN, Shanafelt TD, Gill PR, Satele DV, West CP. Effect of a professional coaching intervention on the well-being and distress of physicians. *JAMA Intern Med.* 2019; 179: 1406-14.
- 60. Clark T, Corral J, Nyberg E, et al. Launchpad for onboarding new faculty into academic life. *Curr Probl Diagn Radiol.* 2018; 47: 72-4.
- Cogbill TH, Shapiro SB. Transition from training to surgical practice. Surg Clin N Am. 2016; 96: 25-33.
- 62. Vallerand RJ, Blanchard C, Mageau GA, et al. Les passions de l'ame: on obsessive and harmonious passion. *J Pers Soc Psychol.* 2003; 85: 756-67.
- 63. Gómez-Salgado J, Navarro-Abal Y, José López- López M, Romero-MartÍn M, Climent-RodrÍguez JA. Engagement, passion and meaning of work as modulating variables in nursing: a theoretical analysis. *Int J Environ Res Public Health*. 2019; 16: 108.
- 64. Donahue EG, Forest J, Vallerand RJ, et al. Passion for work and emotional exhaustion: the mediating role of rumination and recovery. *Appl Psychol Health Well-being*. 2012; 4: 341-68.
- 65. Vallerand RJ, Paquet Y, Philippe FL, Charest J. On the role of passion for work in burnout: a process model. *J Pers.* 2010; 78: 289-312.
- 66. Ruddy NB. Finding and fueling your professional passion. Int J Psych Med. 2019; 54: 253-58.
- 67. Ardell DB. Definition of wellness. Ardell Wellness Report. 1986;18:1-5.
- 68. Stoewen DL. Dimensions of wellness: Change your habits, change your life. *The Canadian veterinary journal.* 2017;58(8):861.
- West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *The Lancet.* 2016;388(10057):2272-2281.
- 70. Traumatology GCAo. Standards of self-care guidelines. 2005.

- Kwah J, Weintraub J, Fallar R, Ripp J. The effect of burnout on medical errors and professionalism in first-year internal medicine residents. *Journal of graduate medical education*. 2016;8(4):597-600.
- 72. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Annals of surgery*. 2010;251(6):995-1000.
- 73. West CP, Tan AD, Habermann TM, Sloan JA, Shanafelt TD. Association of resident fatigue and distress with perceived medical errors. *Jama*. 2009;302(12):1294-1300.
- Doan–Wiggins L, Zun L, Cooper MA, Meyers DL, Chen EH, Force FtWT. Practice satisfaction, occupational stress, and attrition of emergency physicians. *Academic Emergency Medicine*. 1995;2(6):556-563.
- 75. Hampton T. Experts address risk of physician suicide. Jama. 2005;294(10):1189-1191.
- Baicker K, Cutler D, Song Z. Workplace wellness programs can generate savings. *Health affairs*. 2010;29(2):304-311.
- 77. Promoting Wellness: A Guide to Community Action. In: Administration SAaMHS, ed2016:1-7.
- CREATING A HEALTHIER LIFE: A STEP-BY-STEP GUIDE TO WELLNESS. In: Administration SAaMHS, ed2016:1-22.
- Fishman MD, Mehta TS, Siewert B, Bender CE, Kruskal JB. The road to wellness: engagement strategies to help radiologists achieve joy at work. *Radiographics*. 2018;38(6):1651-1664.
- 80. Kohn LT, Corrigan JM, Donaldson MS, editors. To err is human: building a safer health system. Washington, DC: National Academy Press, Institute of Medicine; 1999.
- IOM (Institute of Medicine). Washington, D.C: National Academy Press; 2001. Crossing the Quality Chasm: A New Health System for the 21st Century.
- Shanafelt TD, Trockel M, Ripp JA et al. Building a Program on Well-Being: Key Design Considerations to Meet the Unique Needs of Each Organization. *Academic Medicine* 2019; 94(2): 156-161.
- 83. World Health Organization (2019). International statistical classification of diseases and related health problems (11th ed.). https://icd.who.int/
- Kirk, Lynne M. Professionalism in medicine: definitions and considerations for teaching. *Baylor University Medical Center Proceedings*, vol. 20, no. 1, 2007, p. 13+. Accessed 1 June 2020.

 American Nurses Association. (2015). Code of ethics with interpretative statements. Silver Spring, MD: Author. http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNu

rses/Code-of- Ethics-For-Nurses.html (accessed June 2020)

- 86. ABMS (American Board of Medical Specialties). 2013. ABMS professionalism definition. <u>http://www.abms.org/News_and_Events/Media_Newsroom/features/feature_ABMS_Pr_ofessionalism_Definition_LongForm_abms.org_040413.aspx</u>
- Medical Professionalism in the New Millennium: A Physician Charter A Project of the ABIM Foundation, ACP–ASIM Foundation, and European Federation of Internal Medicine. *Ann Intern Med.* 2002;136:243-246.
- The NASW Code of Ethics (2017) <u>https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English</u>
- Garman, A.N., Evans, R., Krause, M.K., and Anfossi, J. Professionalism. *Journal of Healthcare Management* 51:4 219-222 July/August 2006
- Institute of Medicine 2014. Establishing Transdisciplinary Professionalism for Improving Health Outcomes: Workshop Summary. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/18398</u>
- National Academies of Sciences, Engineering, and Medicine 2019. Taking ActionAgainst Clinician Burnout: A Systems Approach to Professional Well-Being.Washington, DC: The National Academies Press.
- O'Neill, D., Kelly, B., O'Keefe, S., and Moss, H. Mainstreaming Medical Humanities in Continuing Professional Development and Postgraduate Training. *Clin Med (Lond)* Royal College of Physicians. 2020 Mar; 20(2): 208–211
- Cordes CL, Dougherty TW. A review and an integration of research on job burnout. Academy of Management Review. 1993;18(4):621–656.
- 94. Lee RT, Ashforth BE. A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. Organizational Behavior and Human Decision Processes. 1993;54(3):369–398.
- 95. Leiter MP. Burnout as a crisis in professional role structures: Measurement and conceptual issues. Anxiety, Stress, & Coping. 1992;5(1):79–93.
- Chappell NL, Novak M. The role of support in alleviating stress among nursing assistants. Gerontologist. 1992;32(3):351–359.

Submitted April 2021

39

- 97. Siefert K, Jayaratne S, Chess WA. Job satisfaction, burnout, and turnover in health care social workers. Health and Social Work. 1991;16(3):193–202.
- Leiter MP, Harvie P. Condition of staff acceptance of organizational change: burnout as mediating construct. Anxiety Stress Coping. 1998;11(1):1–25.
- Laschinger HK, Leiter MP. The impact of nursing work environments on patient safety outcomes: The mediating role of burnout/engagement. Journal of Nursing Administration. 2006:259–267.
- 100. Dyrbye L, Herrin J, West C, et al. Association of racial bias with burnout among resident physicians. JAMA Netw Open. 2019;2(7):e197457.
- 101. Green, *et.al.*, Implicit Bias among Physicians and its Prediction of Thrombolysis Decisions for Black and White Patients *Journal of General Internal Medicine* 2007;22:1231–1238.
- 102. Kalmoe MC, Chapman MB, Gold JA et al. Physician Suicide: A Call to Action. *Missouri Medicine* 2019; 116(3): 211–216.
- 103. Schernhammer ES, Colditz GA. Suicide Rates Among Physicians: A Quantitative and Gender Assessment (Meta-Analysis) *Am J Psychiatry*. 2004;161:2295–2302.
- 104. Thomas L, Harry E, Quirk R, et al. Evidence based interventions for medical student, trainee and practicing physician wellbeing: A CHARM annotated bibliography for the collaborative for healing and renewal in medicine (CHARM) best practices subgroup. 2017: Alexandria, VA: Alliance for Academic Internal Medicine.
- 105. Raj KS. Wellbeing in residency: a systematic review. J Grad Med Educ 2016;8(5):674-84.
- 106. Wright KP, Bogan RK, Wyatt JK. Shift work and the assessment and management of shift work disorder (SWD). *Sleep Med Rev* 2012;17(1):41-54. doi:
- 107. Hamidi MS, Boggild MK, Cheung AM. Running on empty: a review of nutrition and physicians' wellbeing. *Postgrad Med J* 2016;92:478-481.
- 108. Lemaire JB, Wallace JE, Dinsmore K, *et al.* Physician nutrition and cognition during work hours: effect of a nutrition-based intervention. *BMC Health Serv Res* 2010;10:241.
- 109. Dobkin PL, Bernardi NF, Bagnis CI. Enhancing clinicians' wellbeing and patient-centered care through mindfulness. *J Contin Educ Health Prof* 2016;36(1):11-6.
- 110. Fortney L, Luchterhand C, Zakletskaia L, *et al.* Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: A pilot study. *Ann Fam Med* 2013;11(5):412–20.

- 111. Sood A, Prasad K, Schroeder D, Varkey P. Stress management and resilience training among Department of Medicine faculty: A pilot randomized clinical trial. J Gen Intern Med 2011;26(8):858-61.
- 112. Kjeldmand D and Holmstrom I. Balint groups as a means to increase job satisfaction and prevent burnout Among General Practitioners. *Ann Fam Med* 2008;6;138-145.
- 113. Swensen S, Kabcenell A, Shanafelt T. Physician-organization collaboration reduces physician burnout and promotes engagement: the Mayo Clinic experience. J Healthc Manag 2016;61:105–127. PMID: 27111930
- 114. Jackson ER, Shanafelt TD, Hasan O, Satele DV, Dyrbye LN. Burnout and Alcohol Abuse/Dependence Among U.S. Medical Students. *Acad Med.* 2016;91(9):1251-1256.
- 115. Oreskovich MR, Shanafelt T, Dyrbye LN, et al. The prevalence of substance use disorders in American physicians. *Am J Addict*. 2015;24(1):30-38.
- 116. 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.
- 117. Jones JT, North CS, Vogel-Scibilia S et al. Medical Licensure Questions About Mental Illness and Compliance with the Americans With Disabilities Act. *The Journal of American Academy of Psychiatry and the Law* 2018; 46(4):458-471.
- 118. Kapu AN, Borg-Card E, Jackson H et al. Assessing and addressing practitioner burnout: Results from an advanced practice registered nurse health and well-being study. JAANP 2021; 33(1): 38-48.
- 119. Thomas LR, Ripp JA, West CP. Charter on Physician Wellbeing. JAMA. 2018; 319(15):
 1541-1542.
- 120. Shapiro DE, Duquette C, Abbott LM et al. Beyond Burnout: A Physician Wellness Hierarchy Designed to Prioritize Interventions at the System Level. *Am J Med.* 2019; 132: 556-563.
- 121. https://wellmd.stanford.edu/center1.html