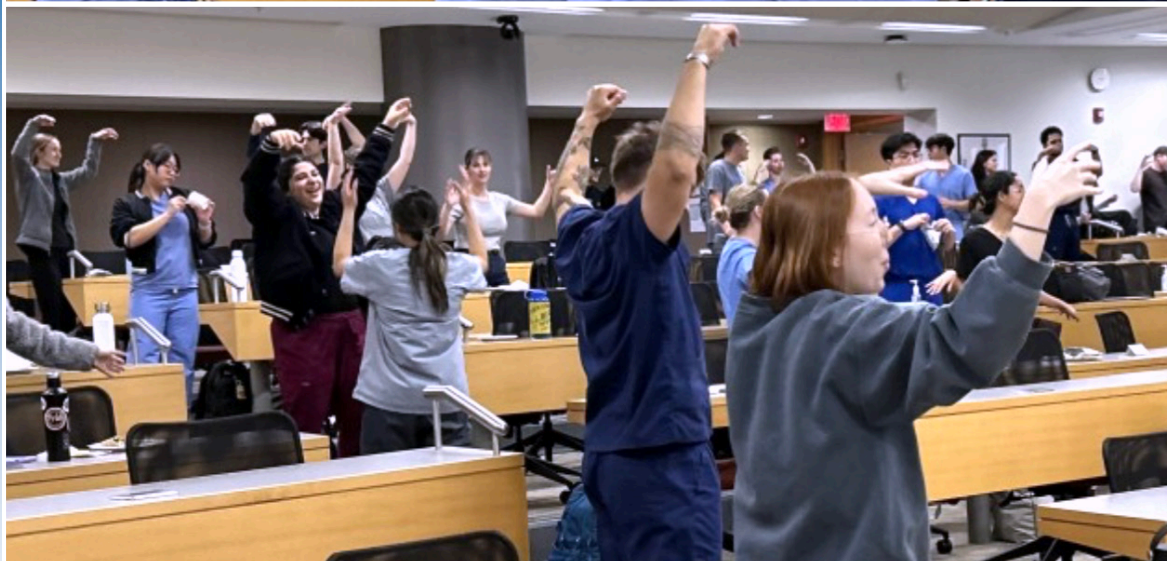


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Well-Being in Medicine

LAUREN ALLISTER, MD
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 GUEST EDITORS



On the cover: Photos are from the Lunch & Be series held for medical students at Brown as part of the Well-Being Program in the Division of Biology and Medicine. These photos show participants in an October 2024 session titled “Release. Relax. Rejuvenate,” which focused on the importance of music and dance. Information on the series and upcoming sessions can be found here: <https://well-being.biomed.brown.edu/events/lunch-be-series>

[PHOTOS: BROWN DIVISION OF BIOLOGY AND MEDICINE, WELL-BEING PROGRAM.]

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From Why to How: Practical Pathways to Healthcare Well-Being

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GUEST EDITORS

The well-being of physicians and healthcare professionals is central to maintaining a functioning healthcare system. Healthcare workers have always faced numerous threats to their well-being, but the COVID pandemic brought many of these long-standing issues to the forefront of public consciousness. The demanding nature of medical work creates high levels of stress and burnout through multiple factors: constant exposure to human suffering, extended work hours, unpredictable schedules, and mounting administrative responsibilities. Additionally, healthcare professionals often struggle with limited autonomy over their work environment, risk of physical injury, emotional strain from challenging patient interactions, and financial pressures. These combined stressors can profoundly affect both the mental and physical health of those working in healthcare settings. The personal consequences of these stressors in physicians include both physical consequences such as fatigue, exhaustion, and risk for motor vehicle accidents, and psychological consequences such as stress, disruptive behavior, mood disorders, depression, and substance abuse.¹ Healthcare workers are at an increased risk of suicide, and preventative interventions along the stress-to-suicide continuum are of paramount importance.

The effects of these stressors extend well beyond the individual well-being of each healthcare worker affected. On an institutional level, there are also significant costs associated with the well-being of the workforce. The financial cost of burnout to healthcare, including attrition of the workforce, is estimated to be \$4.6 million dollars annually.² Patient care is also impacted. Physician depressive symptoms impact attention to detail and decision-making and have been associated with medical errors.³

The complexity of healthcare workforce well-being demands a holistic, systems-level approach that recognizes the intricate relationships between individual resilience and organizational infrastructure. Seemingly disparate elements of well-being are fundamentally interconnected: effective well-being strategies extend beyond individual self-care and resiliency programming. While these elements remain critical, they must be integrated into broader systemic interventions that reshape healthcare delivery and academic medicine environments, organizational cultures, and support structures. This synergistic approach requires simultaneous investment in individual mental health resources

and strategic modifications to healthcare systems, creating a comprehensive framework that addresses both personal coping mechanisms and the structural challenges that contribute to professional burnout and psychological strain.

Our task in this issue was to illuminate well-being programming that we see working within our community and for our colleagues. There has been significant study devoted to why well-being work is important. We wanted to contribute to the evolving body of literature focusing on how to address the complex issue of well-being in medicine. This issue of the *Rhode Island Medical Journal* is a snapshot of solutions that can aid with shifting the culture to one of improved well-being. We specifically tasked our authors, local and national leaders in well-being, to share with us solution-driven, locally effective programs that could be incorporated across different specialties and institutions. There is no one solution. Efforts must include initiatives at the individual, team, and system levels. While this issue is not exhaustive of all solutions, it is an opportunity to illustrate the importance of ongoing discussion, research, and support for healthcare workforce well-being, because when healers thrive, everyone benefits.

In this issue, **DRS. HAMPTON** and **HOLDER** describe a breathing strategy, a seemingly simple but effective strategy for recentering and refocusing that can be used easily with individuals and teams. **DRS. ALVAREZ, WINKEL,** and **KARAMATSU** show how three well-established business models can be adapted to aid the implementation of varied physician well-being initiatives. **DRS. HARDY, GOLD,** and **BURROUGHS-RAY** share a curriculum created to promote and support medical residents' well-being. **DRS. AGARWAL, VAIDYANATHAN, BRANDON** and **BEIDAS** illuminate an approach that uses analytics to improve well-being throughout an organization. **DR. CATANESE** shares a way to create structured opportunities to develop personal and professional skills that aid with improving well-being and enhancing job satisfaction for faculty. **DRS. BREWER** and **ANTICO** share the importance of evidence-based and user-centered design, which involves engaging physicians in the development and execution of wellness programs. **DRS. STUMP, MCCRAY,** and **SHAFI** describe a way to aid learners and faculty in cultivating attention and self-awareness using narrative medicine. **DEEYA PRAKASH,** a current pre-medical undergraduate student, and **DR. LAUREN ALLISTER** share a

hopeful perspective for the culture of well-being in medicine from a future physician.

Established medical journals are stressing the importance of addressing burnout and moral injury amongst the healthcare workforce. Healthcare workers, long acculturated to prioritizing others at the expense of self, are recognizing the importance of self-care as part of successful and sustained careers. Individual and departmental programming is important but not mutually exclusive from the systemic change that also needs to take place. This work requires a bottom-up, top-down approach to create new roots of cultural change. We are buoyed by this important call to action and the work being done in the well-being realm across medical specialties and institutions. Our authors have inspired us with the work they are doing on the well-being front. We hope that this issue, and continued broad attention to this important work, will keep healthcare worker well-being on par with all the other metrics of a successful healthcare system. This issue is our response to this collective call to action for moving from the “why” we need this work to the “how” to create change and sustain a culture of well-being in medicine.

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Before We Begin

BRITTANY STAR HAMPTON, MD; KELLY HOLDER, PhD

Obstetrician/Gynecologists (Ob/Gyns) are surgeons. Much of our work is done within the unique environment of the operating room (OR); a space that has its own rules of engagement. It is a dynamic environment which necessitates the seamless cooperation of different members of the health-care team, often integrating trainees, and at the same time depends on the mastery and command of the surgeon. The OR is tenuous, where something can change any moment – injury, hemorrhage, patient decompensation – leading to a bad outcome.

Psychological and psychosocial physician stress can occur due to the direct responsibility for patient well-being, including the emotional toll of surgery such as bad outcomes and patient death. Each traumatic event, paired with other demands of being a physician today, creates a downstream effect of additional challenges. Burnout, for example, has personal consequences for physicians that can include decreased productivity, job dissatisfaction, risk for motor vehicle accidents, poor self-care, depression, substance abuse, and suicidality.¹ To ensure a sustainable and enduring career, there is a benefit to physicians integrating daily wellness practices into their medical practice to create a buffer to these known hazards. The unique stress of our work within the OR calls for incredible focus and resilience, and the Ob/Gyn surgeon is uniquely situated to bring that focus and resilience into the OR for the entire team with simple wellness practices.

All they need to do, in fact, is breathe. Practice mindful breathing, that is. Mindful breathing refers to intentionally focusing one's attention on the breath in a non-judgmental and present-moment way. It involves bringing awareness to the sensations, rhythm, and quality of the breath while letting go of distractions and thoughts.² Mindful breathing can be done through various techniques such as diaphragmatic breathing, box breathing, breath counting, or focused breathing awareness. Such breathing has proven beneficial for physical and mental well-being as it can successfully lower anxiety, depression, and distress.³⁻⁷ Mindful breathing has a known positive impact on physical health, which includes improved circulatory and respiratory function, reduction of pain, and improved sleep.⁸⁻¹⁰ The beauty of breathing is that it is incredibly simple, yet a powerful tool for enhancing overall mental health and wellness. It is readily available to individuals and can be practiced in various settings.

To harness this tool, all that is required is intentionality and a moment to pause and engage in one of the numerous methods of mindful breathing.

And the Ob/Gyn surgeon, the lead individual in that complex OR environment, can bring the intentionality of integrating this wellness technique into their everyday medical practice in a way that affects the entire OR team. Many years ago I decided to try it out. And I'm still doing it with every OR case.

We roll to the OR, transfer the patient to the table, and do the time out. The team is abuzz with preparation and anticipation. I stand at the bedside for the induction of anesthesia. I might remember a bad outcome, anticipate a difficult case, hold stress from the day. My heart rate might rise. I scrub in and we do the second time out. And then we breathe, the entire team, together. "And we will take two mindful breaths before we start." We pause to take a mindful breath in, and then out. And a second one, in and out. The clamor of the PACU washes away. My heart rate slows. Anxiety, anticipation and stress lessen. All at once, the team is synchronized. The patient and our work come into focus, recentered. And then we begin.

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Disclaimer

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Disclosures

None.

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From Why to How in Physician Well-Being: Aligning Strategies for Sustainable Cultural Change in Healthcare

AL'AI ALVAREZ, MD; MAIA WINKEL, MD; MIA L. KARAMATSU, MD

ABSTRACT

BACKGROUND: The evolution from the Triple Aim to the Quintuple Aim has highlighted physician well-being as crucial for healthcare delivery. While evidence-based interventions exist, implementing sustainable well-being initiatives remains challenging for healthcare organizations.

DESIGN: This report demonstrates how three established business frameworks – McKinsey 7S Framework, Kotter's 8-Step Change Model, and PESTEL analysis – can be adapted to implement physician well-being initiatives in healthcare settings.

RESULTS: These frameworks analyzed three initiatives: promoting break-taking behaviors (McKinsey 7S), transitioning from a sick-call to a back-up call system (Kotter's model), and updating Work-Family-Career Guidelines (PESTEL). Each framework provided unique insights: 7S enabled systematic organizational alignment, Kotter's model facilitated change management, and PESTEL assessed external factors influencing implementation.

CONCLUSION: Adapting business frameworks to healthcare settings provides structured approaches for implementing physician well-being initiatives, demonstrating how cross-sector tools can advance the Quintuple Aim while addressing systemic drivers of burnout.

KEYWORDS: healthcare leadership, physician well-being, strategy, change management

BACKGROUND

The well-being of physicians has emerged as a pressing concern in healthcare, with a growing body of evidence linking physician burnout to negative impacts on patient care, increased healthcare costs, and challenges to workforce sustainability. Despite efforts to address these issues, such as the progression from the Institute for Healthcare Improvement's original Triple Aim¹ – which targeted patient care, population health, and cost – to the Quadruple Aim² that included clinician well-being, and later the Quintuple Aim^{3,4} incorporating health equity, significant barriers to implementation persist. The COVID-19 pandemic further underscored

the importance of integrating well-being and health equity into care delivery. However, many healthcare organizations continue to struggle with translating well-being strategies into sustainable practices due to resource limitations and cultural resistance. The growing data on physician burnout underscores its detrimental effects on patient care quality, increased healthcare costs, and significant impact on the sustainability of the healthcare workforce.⁵⁻¹⁰ These findings have driven more intentional efforts to address physician well-being through targeted interventions and organizational strategies.

While evidence-based interventions for improving physician well-being are well documented, a critical gap remains in the sustainable and widespread integration of these initiatives across clinical settings.¹¹⁻¹³ The challenge is moving from understanding what fosters a supportive, well-being-focused environment to effectively executing customized interventions that meet each institution's unique needs. This gap presents an opportunity to bridge the divide between theory and practice by addressing system-level barriers that prevent the adoption of well-being initiatives. Effective implementation also requires overcoming the common "us vs. them" mindset by fostering collaboration between clinicians, institutional leaders, and administrators to align well-being efforts with organizational goals.¹⁴

Addressing this gap is crucial not only for enhancing physician well-being but also for improving healthcare quality, achieving health equity, and ensuring workforce sustainability. With increasing knowledge and awareness, Well-being 1.0, which primarily focuses on individual resilience, needs to transition into Well-being 2.0, emphasizing systemic action and leadership to drive cultural change.¹⁴ This shift is guided by the Stanford Professional Fulfillment Model¹⁵ and Wellness-Centered Leadership (WCL) principles¹⁶, which focus on cultural transformation, practice efficiency, and support for personal resilience.

Applying structured frameworks from other industries can help solve complex challenges in healthcare. This manuscript uses three proven business models – the McKinsey 7S Framework, Kotter's 8-Step Change Model, and PESTEL analysis – to guide physician well-being initiatives. These models were chosen for their systematic, adaptable approaches to organizational change. The McKinsey 7S Framework aligns key organizational elements – strategy,

structure, systems, shared values, style, staff, and skills – to address systemic barriers.¹ Kotter’s 8-Step Change Model provides clear steps for managing change, including building urgency, forming coalitions, and embedding new practices into culture.¹⁸ PESTEL analysis examines external factors – political, economic, social, technological, environmental, and legal – that influence success and sustainability.¹⁹

This paper will also demonstrate how adapting these frameworks can facilitate the implementation of well-being initiatives in healthcare. Practical examples, such as stocked emergency department snacks, a back-up call shift-credit system, and revised new parent guidelines, will illustrate how integrating these strategies bridges the gap between knowledge and action. By adapting these proven frameworks, healthcare organizations can achieve sustainable improvements in physician well-being.

DESIGN

In this report, we apply a multifaceted design to adapt established frameworks for implementing sustainable physician well-being initiatives in healthcare. The McKinsey 7S Framework ensures organizational alignment,¹⁷ Kotter’s 8-Step Change Model facilitates the change process,¹⁸ and PESTEL analysis addresses external factors that influence implementation.¹⁹ These frameworks, commonly taught in business school and healthcare leadership programs, provide a shared language for physician leaders and hospital executives. This shared language helps move beyond the “us vs. them” mindset, fostering collaboration with hospital leadership to align goals and implement meaningful change, a cornerstone of Well-Being 2.0.¹⁴

The design process incorporates stakeholder feedback, identifies organizational challenges through data analysis, and develops tailored strategies that integrate seamlessly into existing workflows. By leveraging this shared understanding, the frameworks support alignment across leadership levels, secure stakeholder buy-in, and anticipate resistance to change. This approach ensures that well-being initiatives are seen as essential components of clinical practice rather than add-ons. Continuous evaluation and refinement further enhance the sustainability of these programs and support scalability across departments or systems.

By utilizing these frameworks, the design bridges the gap between theory and practice, enabling targeted actions to improve practice efficiency, foster resilience, and create lasting cultural change. This methodology offers a replicable model for other healthcare institutions aiming to implement effective physician well-being initiatives.

RESULTS

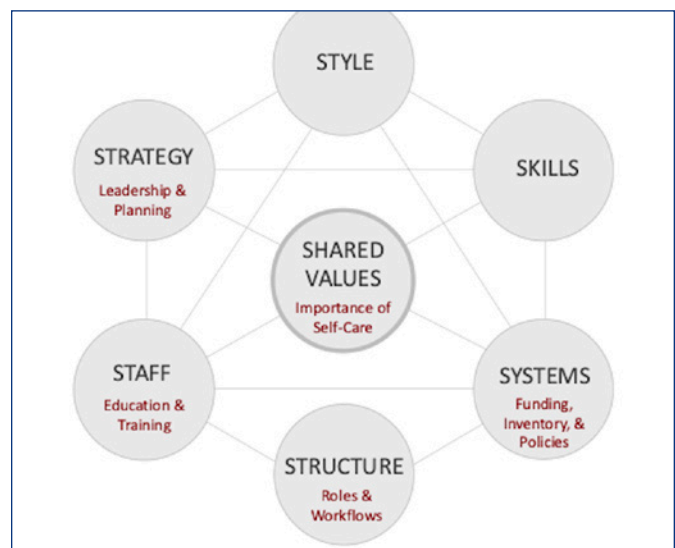
Supporting Break-Taking Behaviors in the Emergency Department

The McKinsey 7S Framework (**Figure 1**) provides a comprehensive approach to effectively implementing the break-taking initiative in the emergency department (ED), ensuring that all organizational elements are aligned and optimized. By addressing strategy, structure, systems, shared values, style, staff, and skills, the framework facilitates seamless integration of the initiative into the department’s operations, advancing a culture of wellness.

As an illustration of several nodes within the McKinsey 7S framework, the structural dimension of the initiative involved establishing defined roles and workflows for managing logistics centered around the installation and maintenance of a stocked refrigerator to ensure the consistent availability of nutritious snacks and beverages in the ED. Systems were developed to support funding and inventory management for sustainability, incorporating feedback mechanisms to maintain stock levels throughout the week. Additionally, policies were designed to align with Occupational Safety and Health Administration (OSHA) guidelines, Joint Commission standards, and state regulations, ensuring that break-taking can be integrated without compromising patient care. This structural alignment, supported by strategic planning, aimed to embed break-taking as a routine aspect of ED operations, with shared responsibilities across physicians, nurses, and support staff to sustain the initiative.

Incorporating shared values is essential to fostering a cultural shift that views regular breaks as integral to clinician well-being and the delivery of high-quality patient care. This

Figure 1. McKinsey 7S Framework for Supporting Break-Taking Behaviors in the ED



Adapted from <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/enduring-ideas-the-7-s-framework#>

initiative reframes break-taking from a perceived sign of weakness to a valued practice that enhances personal health and professional performance. Leadership style played a pivotal role in modeling and promoting these values, with leaders actively encouraging staff to participate and reinforcing the importance of self-care. Staff engagement is also critical, with education and training to build the necessary time management skills and integrate breaks into daily workflows. Through this comprehensive approach, the initiative aligns all seven elements of the 7S Framework, facilitating a cultural transformation that embeds wellness as a core organizational value in the ED.

The McKinsey 7S Framework helps ensure the success of this initiative by providing a structured lens through which each aspect of the organization is considered, allowing for targeted adjustments that promote alignment and coherence across all components, thereby driving sustainable change.

Moving from Sick-Call to Back-Up Call: A Human-Centered Approach

Kotter's 8-Step Change Model (Figure 2) provides a structured framework for implementing organizational change by building urgency and guiding people through the transformation process. In the context of transitioning from a traditional sick-call system to a back-up call system in the ED, this model supported the establishment of a human-centered approach that recognized and compensated on-call availability, assisted colleagues dealing with illness or significant life events, and fostered a culture where taking necessary time off was accepted and encouraged. Even the choice of language, moving from "sick-call activation" to "back-up call activation," helped reinforce the initiative by framing the system as supportive and proactive rather than reactive, thereby reducing any stigma associated with calling out.

As an illustration of this model, creating a sense of urgency was crucial for initiating the change. This involved clearly communicating the risks associated with the previous sick-call culture, where clinicians often felt pressured to "suck it up" and work despite being unwell, resulting in burnout and compromised, and even unsafe, patient care. Presenting data on the negative effects of presenteeism – such as increased fatigue-related errors, diminished job satisfaction, and long-term health impacts – emphasized the immediate

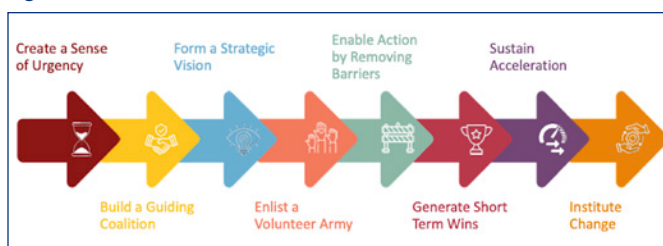
need for a more supportive system.²⁰ To further convey the gravity of the problem, wellness champions conducted listening sessions and met directly with key stakeholders, including frontline clinicians and leadership, to gather firsthand accounts of the challenges faced under the previous system. These sessions not only validated the concerns but also helped tailor the urgency message to resonate with different audiences. Framing the back-up call system as a solution that safeguarded individual well-being while enhancing department performance and patient safety generated strong momentum for change.

Forming a powerful coalition was equally critical to driving the initiative forward. This coalition was composed of a diverse group of stakeholders, including ED physician leaders, physicians with caregiving responsibilities, physicians heavily involved in research, administrators, frontline physicians, and wellness champions, all of whom were committed to embracing the change. Including representatives from various roles ensured that multiple perspectives were considered and helped build broad-based support across the department. Wellness champions within the coalition played a key role by using insights gathered from listening sessions to engage directly with key stakeholders, ensuring that the proposed changes addressed the specific needs and concerns of the physician group. The coalition leveraged personal stories and experiences to highlight the benefits of the back-up call system, advocated for essential policy updates, and engaged their peers in discussions about the cultural shift towards a more compassionate and sustainable approach to shift coverage. By empowering this coalition, the department successfully piloted the model with the desired outcomes, leading to its implementation and adoption in the ED.

Minimizing the Impact of Work on Personal Relationships by Updating the Work-Family-Career Guidelines

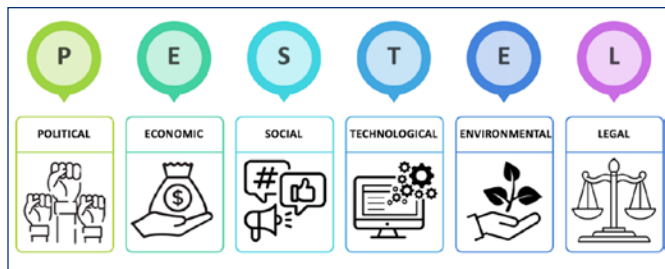
A PESTEL analysis (Figure 3) provides a comprehensive framework for examining external factors that impact an organization, focusing on Political, Economic, Social, Technological, Environmental, and Legal aspects. Using this approach to support new parents with caregiving responsibilities, Stanford Emergency Medicine updated its Work-Family-Career Guidelines to better address the external pressures and needs faced by physician parents. Socially, there is a growing emphasis on work-life balance, particularly in high-pressure fields like emergency medicine, where the demands of clinical duties can conflict with personal responsibilities. The updated guidelines aim to normalize practices such as flexible scheduling, comprehensive family support resources, and back-up childcare, making it easier for physicians to manage their personal and professional demands. By encouraging all parents – including fathers and non-birthing parents – to fully utilize their leave benefits, the guidelines help shift cultural perceptions, reduce the stigma

Figure 2.



Adapted from <https://www.kotterinc.com/methodology/8-steps/>

Figure 3.



Adapted from <https://www.lexisnexis.com/en-int/glossary/compliance/pestel-risk-monitoring>

associated with taking time off, and promote a more equitable distribution of caregiving responsibilities across genders.

Physically, the updated guidelines prioritize providing suitable accommodations that support the needs of new parents returning to work. Such accommodations include creating designated lactation rooms within or near the ED, equipped with ergonomic workstations, refrigerators, and comfortable seating to ensure privacy and convenience. Flexible scheduling options, such as eliminating night or on-call shifts during critical stages of pregnancy and the first year postpartum and limiting physically demanding tasks, help to minimize the physical strain on physicians and contribute to a safer, more supportive work environment. Additionally, offering support for emergent childcare resources can alleviate stress by providing options that accommodate the non-traditional hours typical in emergency medicine, allowing physician parents to focus on both patient care and their families.

Integrating these physical and societal factors into the Work-Family-Career Guidelines not only supports individual well-being but also aligns with broader institutional goals of fostering a culture of wellness. By addressing societal expectations for work-life balance and implementing practical physical accommodations, the guidelines help create an environment where physician parents feel supported in both their professional and personal lives. This approach not only enhances job satisfaction and retention but also reinforces the department's commitment to leading by example in creating a family-friendly workplace in academic medicine.

CONCLUSION

The successful implementation of physician well-being initiatives requires a structured approach that bridges the gap between knowledge and action. By adapting established business frameworks – McKinsey 7S, Kotter's 8-Step Change Model, and PESTEL analysis – healthcare organizations can systematically tackle the challenges of implementing sustainable well-being programs. Our analysis of three successful initiatives shows how these frameworks can facilitate the shift from Well-being 1.0 to Well-being

2.0, advancing beyond individual interventions to systemic change. Through aligning organizational elements, managing change effectively, and accounting for external factors, these frameworks provide a replicable strategy for fostering a culture of wellness, improving practice efficiency, and supporting personal resilience.

Integrating Wellness-Centered Leadership principles with these business frameworks establishes a strong foundation for sustainable change. Organizations can create environments where well-being initiatives can flourish by focusing on caring about people, cultivating relationships, and inspiring change. Success depends on collaboration between clinicians, administrators, and wellness leaders, underpinned by data-driven metrics and continuous feedback. As healthcare organizations pursue the Quintuple Aim, this structured approach offers a clear pathway forward, addressing both the immediate needs of physicians and the long-term sustainability of the healthcare workforce. Future research should validate these implementation frameworks across various healthcare settings and develop standardized metrics to measure their impact on physician well-being and organizational outcomes.

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Med-Peds PROuD: A Pilot Study of Targeted Professional Development to Promote Well-Being Among Internal Medicine-Pediatrics Residents

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ABSTRACT

INTRODUCTION: In physicians, burnout is highest during training, with 60.3% of residents reporting at least one symptom of burnout. The Accreditation Council for Graduate Medical Education Common Program Requirements establishes standards to promote well-being. We developed a professional development curriculum to target this requirement.

METHODS: 60-minute post-graduate year (PGY)-specific professional development workshops were offered to internal medicine-pediatrics (Med-Peds) PGY-1-PGY-4 residents at a large academic institution. We applied descriptive statistics for quantitative data using Likert-scale questions.

RESULTS: Eight Med-Peds professional development (PROuD) sessions occurred from July 2023–June 2024, with 44 residents participating in 1–2 sessions comprising 5–10 residents per session. The survey response rate was 53% (n=62), and 45% reported feeling ‘less stressed’ or ‘no stress at all’ after attending. 93% of participants viewed the workshop favorably and 96% expressed interest in future sessions.

DISCUSSION: This pilot study demonstrated that residents experienced decreased stress and increased interest in future sessions after attending targeted PGY professional development workshops

KEYWORDS: graduate medical education, well-being, professional development

INTRODUCTION

The Accreditation Council for Graduate Medical Education (ACGME) establishes and monitors professional educational standards for all medical residency and fellowship programs in the United States.¹ Through the Common Program Requirements (CPR), ACGME ensures that all residencies and fellowships have a shared foundation of core competencies that are measured by corresponding milestones. Developed in 2019, the Clinical Environment Review (CLER) Program is comprised of five focus areas, one of which is well-being.^{2,3} Implementation of these CPR competencies and CLER focus

areas can be challenging given the unique needs of training programs, but the impact on trainee success is clear.⁴ One study showed an association between burnout, measured by Maslach Burnout Inventory scores, and decreased milestone performance for pediatric post-graduate year 1 (PGY-1) residents.⁵ To assist programs in addressing these barriers to implementation, ACGME provides a collection of well-being resources to support sponsoring institutions, programs, and individuals within graduate medical education (GME) in learning about and improving various aspects of well-being. The guidance provided in these resources should be tailored to the unique needs of each residency program based on identified drivers of burnout, helping institutions and programs create ethical, humanistic educational environments that address local needs effectively.⁶

As a workplace phenomenon, burnout comprises depersonalization, emotional exhaustion and feelings of inefficacy.⁷ During the physician life cycle, burnout is highest amongst residents and fellows at 60.3% compared to medical trainees (55.9%) and early career physicians (51.4%).⁸ Extending beyond the trainee, burnout impacts every aspect of their professional identity: patient care, professionalism and even academic achievement.⁹⁻¹¹ Burnout isn't stagnant either, and as residents matriculate through their training it worsens. One study noted 47% of PGY-2 residents experienced burnout compared to 37% of PGY-1 and 43% of PGY-3 residents.¹² The increase in supervision responsibility, larger patient load and teaching expectations that characterize the supervisor role likely contribute to these worsening numbers. Time spent engaging with electronic health records (EHRs) is also often directly correlated with burnout rates, and 37% of PGY-2s report completing work on EHRs at home in the previous month compared to 31% of PGY-1s.¹² Additional risk factors include imposter syndrome and challenges with residency program leadership, which could offer additional opportunities for intervention.^{13,14} Navigating and mitigating burnout in residency can seem daunting; however, we propose an evidence-based approach centered around the Job Demand-Control (JDC) Theory to address this challenge.

The JDC theory is one of the most widely studied models of occupational stress. This framework predicts employee well-being based on the imbalance between job demands (workload) and job control (decision latitude).¹⁵ Jobs with high

demand and low control, referred to as ‘high strain’ jobs, lead to increased stress, burnout, and negative health effects.^{16,17} The increased workload (high demand) and decreased control over work-scheduling (low control) in residency are characteristic of a ‘high strain’ job. Employees in jobs with high demand and high control experience increased learning, motivation and development of skills.¹⁵ However, employees in ‘high strain’ jobs can experience these same benefits by integrating resources and social support as described by the Job Demand-Control Support (JDCS) model.¹⁸⁻²⁰ Through resources, such as professional development and mentorship, residents can be better equipped to mitigate burnout and increase their decision latitude. These concepts, and the JDCS model served as the basis for the creation of an internal medicine-pediatrics professional development (Med-Peds PROuD) curriculum to improve resident well-being.

We aimed to demonstrate that physician well-being can be amplified and stress reduced by an intentional professional development curriculum designed for Med-Peds resident physicians at a large academic institution. The Med-Peds PROuD curriculum aligns with the CPR of professionalism and the CLER focus area of well-being to promote their implementation in a residency program. Designed to improve resident physicians’ preparation for independent practice, this curriculum fosters individual resilience and supports residents in managing the unique demands of residency while improving well-being and job satisfaction.

METHODS

Setting and Population

Participants included were residents in the Med-Peds residency program at University of Tennessee Health Science Center (UTHSC), a large academic institution. The professional development sessions were voluntary and offered in the evening in the homes of the faculty members leading the sessions. The residents were divided into cohorts based on their PGY and each cohort was assigned a faculty mentor as the session facilitator. Since this was a pilot, there were only two sessions held for each cohort of residents. Each session included 5–10 resident participants and one faculty facilitator.

Facilitators

The Program Director and/or an Associate Program Director of the UTHSC Med-Peds residency acted as facilitators for each session. Due to their unique role in providing mentorship, career advising, navigating post-residency opportunities, and successfully completing two board exams, members of program leadership were well equipped to provide this education.

Table 1. Professional Development Session Topics

	PGY-1	PGY-2	PGY-3	PGY-4
Fall Session	An Insider's Guide to Surviving the Switch	Resident Wellness	Dusting off Your CV Before Your Graduation Date	Navigating the Next Steps: Preparing for Life After Residency
Spring Session	Beyond Doubt: Navigating Imposter Syndrome	Get Scholarly – Med Ed Abstract Workshop	A Year from Now: Imaging Your Ideal Career	Life After Residency: Reconnecting to Your Why

Intervention

Schedule: Each cohort had two sessions that were tailored to the unique needs of each PGY, resulting in a total of eight 60-minute sessions across the 2023–2024 academic year. Sessions were held in the evening to limit conflicts with existing mandatory didactics. Each PGY cohort had two sessions, one in the fall and one in the spring, that were tailored to the unique needs of their class. The time between the sessions ranged from 6–8 months. Polls were used to schedule the sessions to maximize attendance. Residents reported that they preferred well-being-related activities to be after hours in a faculty member’s home based on an internal well-being needs assessment conducted in 2022.

Session Structure: The JDCS model highlights the ability of professional development and mentorship as resources that can decrease the strain experienced in high-stress and low-control occupations such as residency. Each session provided participants with group mentorship from program leaders, as well as specific professional development skills that were applied during the session. Each session’s organization varied but generally comprised at least two components: brief didactics and facilitated large group discussions in a supportive environment. At least one session for each PGY cohort incorporated a hands-on activity that allowed participants to leave with a tangible item after the session (i.e., edited curriculum vitae, well-being toolkit). The session topics were chosen based on the ACGME CPR milestones for all trainees in ACGME-accredited programs. In addition, the results from the above-mentioned internal well-being needs assessment were also used to identify Med-Peds specific areas of interest for inclusion. There was no required pre-reading for the sessions. For the last five minutes of each session, time was allotted for participants to complete the optional survey. Session themes are outlined in **Table 1**.

Data Acquisition and Analysis

At the end of each Med-Peds PROuD session, learners were provided with a QR code to an anonymous survey. Participants were allotted five minutes in person to complete the survey, which included three items assessing topic relevance, acquisition of new information and faculty content expertise scored in a 5-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree).

RESULTS

Med-Peds PROuD sessions were available to all four years of Med-Peds residents at one academic institution (n=51) over one academic year (2023–2024). Participation was voluntary, and the sessions did not replace existing required didactics. The number of attendees for each class-specific session ranged from 5–10 residents, with an average attendance rate of 61% for the respective PGY cohort (each PGY cohort ranged from 12–14 residents). A total of 44 residents participated in 1–2 sessions during the year. The attendance rate was higher during the fall sessions, with an average attendance rate of 75%, compared to 47% in the spring. In total, eight sessions were conducted across all PGY levels with 32 survey responses (response rate 52%; see **Table 2**).

Overall, residents reported an impact on their stress levels after these sessions, with 45% of all respondents feeling ‘less stressed’ or ‘no stress at all’ after attending. While the perceived stress level of respondents after their respective session varied between classes, across all PGY levels, a smaller percentage of respondents reported feeling ‘very stressed’ or ‘stressed’ following the spring sessions compared to the fall sessions (see **Table 3**).

Quantitative Data

On average, responses to all Likert-scale questions were rated as positive (mean >3/5), as opposed to neutral (3/5) or negative (<3/5) (see **Table 2**). Over 96% of responses ranked 4–5/5 for the topic being pertinent to stressors specific to their PGY level (n=60) and the acquisition of new information during the session (n=60). Facilitators were rated as being knowledgeable regarding the workshop topics (mean 4.9/5). 93% of participants viewed the workshop format favorably, and 96% were interested in attending future sessions.

Qualitative Data

In this pilot study, the qualitative questions were limited to recommended changes to the sessions and solicitation of topics for future sessions. There were conflicting responses about the timing of the sessions, with one participant responding, ‘would prefer to have over lunch,’ compared to another participant who commented, ‘loved the format at an attendings house!’ Multiple residents requested earlier start times and suggested topics (i.e., curriculum vitae, cover letters, job opportunities) to be covered in other sessions. For the Resident Wellness session, participants indicated that PowerPoint was not the best format for discussing this topic and that they would prefer to spend more time discussing communication skills such as debriefing.

DISCUSSION

Overall, this pilot study of a professional development intervention based on the JDCS theory to address ACGME CPR professional development competency was well received and decreased stress across all PGY classes. Med-Peds PROuD was favorably received by residents who found the selected

Table 2. Professional Development Session Attendance and Survey Responses

Class	Attendance Percentage (N)	Survey Response (%)	Topic was Pertinent	Faculty was Knowledgeable
Fall Sessions				
PGY-1	0.67 (12)	0.38	4.67	5
PGY-2	0.71 (14)	0.3	4.67	5
PGY-3	0.83 (12)	0.4	4.25	4.75
PGY-4	0.77 (13)	0.8	4.25	4.75
Spring Sessions				
PGY-1	0.54 (12)	0.6	4.67	5
PGY-2	0.43 (14)	0.5	4.67	5
PGY-3	0.50 (12)	0.83	4.2	4.4
PGY-4	0.54 (13)	0.43	4.67	5

Table 3. Resident Survey Results of Perceived Stress Level Post-Session (Percentage of Respondents)

Class	Residents Responded as either ‘Less Stressed’ or ‘No Stress At All’	Residents Responding with ‘No Change’ in Stress	Residents Responding with ‘Very Stressed’ or ‘Stressed’
Fall Sessions			
PGY-1	0.33	0	0.67
PGY-2	0.33	0.33	0.33
PGY-3	0.5	0.25	0.25
PGY-4	0	0.375	0.625
Spring Sessions			
PGY-1	0.67	0.33	0
PGY-2	1	0	0
PGY-3	0.4	0.6	0
PGY-4	0.33	0.33	0.33

topics relevant and content applicable to their specific PGY. Faculty were viewed as knowledgeable facilitators, reflecting their leadership roles within the program. Notably, survey response rates increased from fall to spring sessions across PGY levels, except for PGY-4 residents, likely due to reduced engagement and investment in program changes as they prepared for graduation.

Of note, PGY-1 and PGY-4 residents reported heightened stress following the first session, both of which focused on transitions – switching categorical programs for PGY-1s and pursuing job opportunities for PGY-4s. These sessions may have increased awareness of challenges associated with these transitions, intensifying perceived stress related to upcoming changes. Conversely, PGY-1 residents reported reduced

stress after the spring session on imposter syndrome, even as they approached supervisory roles. This session intentionally did not emphasize supervisory responsibilities, given an existing required Supervisor's Curriculum provided to all rising PGY-2 Med-Peds and Internal Medicine residents, which provided skills to prepare them for this new role.

Despite residents consistently agreeing that chosen topics were pertinent and expressing interest in attending future sessions, there was a decrease in spring session attendance compared to fall attendance across all PGY cohorts. Data collected from each cohort following their respective fall sessions indicated that residents found the sessions useful and expressed interest in future attendance. We therefore hypothesize that the decline in attendance across all PGYs was not due to a lack of interest in the curriculum but to external factors beyond the curriculum designers' control.

Looking more specifically at each PGY class, spring session attendance dropped by 13% for PGY-1 residents likely due to the overwhelming demands of their intern year, and anxiety related to their impending supervisor role. This was evident during the spring session discussion where PGY-1 participants expressed feelings of exhaustion and burnout. The most significant decline affected the PGY-2 residents with a 28% decrease in attendance (fall attendance 43%). This decline can be attributed to several factors, most notably conflicting with the last journal club of the year, which residents are required to attend twice a year. Moreover, the Med-Peds PGY-2 schedule is intentionally designed to maximize exposure to essential categorical rotations, such as inpatient wards and intensive care units, resulting in a challenging schedule that augments burnout. As a result, some residents may have been experiencing burnout or prioritized required didactics over the optional Med-Peds PROuD session, even if they had a stronger interest in the latter. The PGY-4 class experienced a 23% decrease in attendance in the spring compared to the fall session. This decline was likely due to impending graduation and prioritizing tasks related to transitioning from residency (onboarding, licensure, or moving arrangements).

Limitations

While the results of this pilot study are promising, several limitations should be considered. A key limitation to our findings is the single-year duration and single-institution setting, which restricts generalizability. Though done within a large-sized Med-Peds program (PGY cohort range 12–14 residents), the sample size is small, which limits the power of any statistical findings. We also did not conduct pre/post-test assessments to measure burnout besides stress after the session. Moreover, additional questions that could have provided a deeper understanding of the reasons behind the changes in stress levels or the decline in attendance were not explored.

Future Considerations

To enhance the impact of Med-Peds PROuD, future considerations include expanding the range of topics to address transitions in residency and incorporating hybrid sessions by integrating them into the pre-existing protected Med-Peds noon conference curriculum alongside after-hours sessions. In response to observed declines in resident attendance and unanticipated barriers to participation – primarily the overwhelming demands tied to specific PGY-level responsibilities – we advocated for future sessions to be included in program-sponsored mandatory didactics to provide protected time for participation. Additionally, during the second year of the curriculum (2024–2025 academic year), we adjusted the format to include two additional sessions per PGY level to take place during the workday, complementing the two sessions held at a faculty member's home. By doubling the frequency of Med-Peds PROuD sessions to quarterly, these changes aim to better meet residents' needs, enhance engagement, and cover a broader range of professional development topics. The JCDS model predicts that the provision of increased professional development resources and engagement in group and peer mentoring will allow residents to gain skills that will help them decrease the burnout they experience as trainees. More sessions will provide more opportunities for data collection to better assess the efficacy of these resources – including pre/post surveys, and a measure of burnout.

CONCLUSION

This pilot program, consisting of carefully designed professional development workshops based on established ACGME standards and informed by an internal residency survey, presents an innovative approach to fostering well-being and professionalism within a large Med-Peds residency program. Though limited, our data demonstrates that participating residents viewed this targeted professional development program as relevant, worthwhile, and valuable. This approach yielded positive outcomes for all involved, with residents gaining confidence and professional skills, while the residency program identified an innovative and effective way to meet accreditation standards.

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Disclaimer

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Disclosures

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Operationalizing Well-Being Using Work Determinants of Well-Being: Building a Well-Being Analytics Approach

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ABSTRACT

Improving the well-being of healthcare workers (HCWs) requires embedding well-being into healthcare operations. However, limitations of current well-being metrics serve as barriers for healthcare systems to address well-being in the same manner as other operational challenges, such as patient access and safety. Identification and measurement of Work Determinants of Well-Being (WDOW), organizationally attributable characteristics that are related to HCW health and well-being, are necessary first steps for healthcare institutions to take a systems approach to well-being. By leveraging existing data within healthcare systems, we describe how we built a well-being analytics team and database to identify WDOW. We use a case example of Paid Time Off (PTO) utilization to illustrate the potential of this approach to reduce burnout and improve well-being among HCWs.

KEYWORDS: work determinants of well-being, well-being data analytics, paid time off

INTRODUCTION

The well-being movement is at a crossroads. Post-pandemic recovery brings many health systems back to a pre-pandemic state in many ways. While we celebrate this “win,” we must not forget that healthcare workers (HCWs) were struggling far before the pandemic and that simply returning to pre-pandemic levels of well-being is not the transformative culture change to aspire to. The National Plan for Health Workforce Well-Being states, “the solution is to take a systems approach that recognizes that no single variable in the health system is to blame for the problem of burnout. Addressing the issue from multiple angles is necessary to redesign environments.”¹ Both redesigning the work environment and optimizing the operations by which we deliver healthcare while centering workforce well-being will be needed to achieve transformative culture change.²

What has prevented us from embedding well-being into operations? If no single variable is to blame for the problem of burnout, how do we identify these various variables? Are these variables the same for all healthcare workers, or as is likely, are the variables unique to various job families such as physicians, nurses, pharmacists, and medical assistants?

How do we support our healthcare system leaders at all levels in approaching well-being with the same rigor as they would for routine operational problems such as access, throughput, or surgery turnaround times? A central maxim in operations is, “If you can’t measure it, you can’t manage it.” For well-being to be embedded in operations, core metrics that can be easily and continuously measured in real time (just as we do for access, for example) are needed.

Currently, there are several challenges to measuring well-being. First, organizations typically focus on well-being metrics (usually engagement and burnout related) gathered from HCWs using surveys. These surveys rely on subjective well-being metrics that are usually lagging indicators, add another task for already overburdened healthcare workers to complete leading to reports of survey fatigue, have considerable non-respondent percentages that lead to uncertainty about the general applicability of the results, and are often administered too infrequently (usually annually). This leads to subjective data that does not provide a complete picture of the entire workforce, requires active collection and burdensome analysis, is retrospective, quickly dated, and too downstream (lagging) to allow for effective intervention. We need data that are objective, complete, passively collected, updated regularly (or better yet, in real time), and upstream enough to allow for intervention.

These data, which we believe are the multiple variables the National Plan is referring to, can be found by identifying and measuring work determinants of well-being (WDOW), or organizationally attributable, employment-related conditions that contribute to group differences in health risk and status.³ This is the first step for well-being to be addressed the same way we address other operational matters. WDOW control whether work promotes well-being or serves as a hazard to HCW well-being and can serve as powerful system-level prevention and intervention targets. Fortunately, there is a massive amount of relevant workforce data buried within healthcare organization systems that can help identify objective WDOW that impact well-being. Examples include electronic health record log data to understand after-hours work, assessment of vacation time, and staffing ratios.^{4,5}

The primary challenge to use these data includes siloed sources across different institutional databases, including human resources, risk, injury, electronic health records, facilities, and financial records. Without a cohesive approach

to data collection and analysis, organizational leaders struggle to identify trends, patterns, and potential areas for systems level intervention to enhance workforce well-being.⁶

Below, we describe how our organization has taken the first step of fulfilling the promise of providing a superior work environment for our HCWs by bringing together multiple available data sources to allow for identification of WDO that can serve as potential targets for intervention.⁷

To do so, we created a well-being analytics team to build a central well-being database architecture. This approach can be replicated by health systems to create the foundation needed to achieve our ultimate vision of leaders using this data to transform well-being culture.

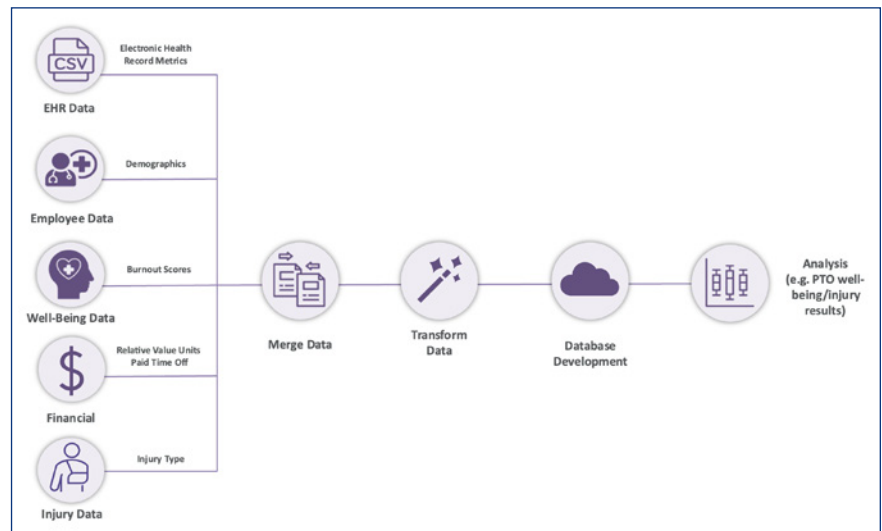
DEVELOPMENT

The Office of Well-Being began by cultivating partnerships with key members of the organization that owned various data sources. We began collecting various data that previous literature suggested may be particularly relevant to well-being and could help us identify WDO. Data includes, but is not limited to, deidentified electronic health record metrics, employee demographics, subjective well-being responses, financial costs and productivity, employee injuries and leave of absences, reporting structures, and several other data sources. Our analytics team collects and makes sense of these data by looking for patterns and establishing their veracity. To accomplish this task with large amounts of data and complex hypotheses, we created a central database that merges the data above and stores data in an organized fashion allowing us to use code to retrieve exactly what variables we need to answer the question asked. We gather the data, organize it carefully, and “ingest” it into the database. Lastly, we store the database in the “cloud” which is a large space big enough for us to allow machine-learning and artificial intelligence to assess the data for patterns we cannot identify on our own.^{8,9}

Our well-being analytics team is currently made up of three core members with additional access to multiple institutional experts and information systems teams. The three core members include a lead analyst, data architect, and data analyst. The lead analyst is responsible for designing the overall data architecture, ensuring all the necessary data elements (available objective variables) are known and accessible, and defining the outcomes to be measured. The data architect is responsible for building the database in the available environment, on premises or in the cloud, and ensuring the vetted elements are accurately captured, labeled, and maintained. Additionally, the data architect is

often called on to creatively manage complex data requests for internal and external analysts working with our larger well-being team. The data analyst has the role of curating and transforming the data for specific projects, questions, or hypotheses. Data pulled from a large database can often have missing elements, multiple results for the same elements within the time period being analyzed, or other nuances that make the data difficult to consume and test. (Figure 1).

Figure 1.



WDO PAID TIME OFF (PTO) CASE EXAMPLE

Our flagship program for the Office of Well-Being is called the Scholars of Wellness (SOW). Additional details about this program can be found here (<https://edhub.ama-assn.org/steps-forward/module/2782425>). One objective of this program is to allow us to explore hypotheses that can help us identify WDO. Three separate SOW leaders identified rest and recovery opportunities as important employment-related conditions that contribute to group differences in health risk and status (i.e., WDO).^{3,10} For example, one project showed that 32% of physicians took ≤ 2 weeks of paid time off (PTO) per year, and those who had taken their PTO >6 months ago had a 32% increase in burnout compared to those who had taken PTO more recently. While PTO is often conceptualized as an individual choice, the interventions used in all three Scholars of Wellness projects included system-level changes such as dividing physicians into pods of coverage partners, team-based care workflows to limit the increase in work upon return from PTO and creating schedules with vacation weeks prepopulated one year in advance. These interventions were effective, including 91% physician utilization of the prepopulated weeklong vacations in their calendars across the year. These projects demonstrate that using PTO impacts physician well-being and we can redesign the process of PTO to increase healthy PTO usage at the system level.

Next, we chose to further explore PTO utilization as a WDW in nursing and pharmacy HCWs because these job families had the highest burnout rates in our system, mirroring national trends.¹¹ First, we integrated siloed data sources about nurses (n = 2,967) and pharmacists (n = 280) employed by Northwestern Medicine's (NM) into our central well-being database. We excluded new hires who did not yet have the opportunity to accrue PTO, as well as HCWs who did not respond to NM's annual well-being surveys. Second, using the Orange Data Mining application (an open-access data visualization, machine-learning, and data-mining toolkit), we explored the data using a sieve (also known as parquet) diagram.¹² This is a graphical method to visualize frequencies in a two-way contingency table by comparing them to expected frequencies. Specifically, we plotted PTO accrual by those healthcare workers screening positive for burnout for each job family. We defined PTO as 'accrual of PTO hours,' which describes the number of hours accumulated. Higher number of hours accumulated generally means the HCW is not using as much PTO and, therefore, may have fewer opportunities for rest and recovery. We were able to produce two cohorts based upon this data visualization: those below and above the expected frequencies of burnout. The odds of burnout, as measured by scoring a 5 (experiencing burnout once a week or more), in nurses in the high PTO accrual group (>26 hours; 26% of nurses) were 1.4 times (CI 1.09–1.8) greater than those in the lower PTO hours accrual group (<26 hours); the odds of burnout in pharmacists with >65 hours of PTO (30%) were 2.12 times (CI 1.02–4.41) greater than those in the lower accumulated PTO hours group. This data provided evidence for the hypothesis that PTO is a WDW, as fewer opportunities to rest and recover were contributing to higher rates of burnout. However, because of our central well-being database, we could further run analyses for the PTO WDW against other previously siloed data sources. We evaluated injuries in the staff nurse population, non-managerial or tenured roles, who used PTO in the prior year but still had accrued PTO available in their PTO bank. By associating our hospital system's injury data with our available HR and well-being data, we were able to identify 882 nurses in our database that met the criteria for analysis. We found that average PTO accrual for nurses who did not sustain an injury in fiscal year (FY) 2023 was 60 hours, while the average for nurses who did sustain an injury in the same period was 66.5 hours, p= 0.026. This outcome added support to the association between accrued PTO and workforce well-being. This data can be used to make an additional compelling argument to our organization that finding systems level solutions to facilitate the healthy utilization of PTO needs to be an organizational priority.

CONCLUSION

Future directions for our team include continuing to identify additional WDW across various job families in our health-care system. Post-pandemic, we cannot focus well-being efforts solely on physicians and nurses. These efforts will need to be inclusive and at scale. We believe the approach above is a necessary first step for well-being leaders to shape organizational strategy. We then will move to the next step to realize our vision as we learn how to best ensure that new data can result in behavior and operational changes to improve well-being. More recently, our team has partnered with faculty in the medical school with expertise in intervention and implementation science to help focus our approach on elements with potential for dashboard development and intervention. Finally, we are optimizing our team's processes of large-scale data cleaning and database design so we can run more robust predicative efforts in the future, building on work that has already shown how even using one main data source (the EHR) can begin to predict burnout.¹³

We believe the future is bright for well-being 2.0 as we seek to create the work environments that support workforce thriving and will center well-being as an operational priority. When this happens, we believe the responsibility for well-being will be shared and distributed across the healthcare organization and large-scale transformative culture change can truly be achieved.

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Disclaimer

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Pathways to Wellness: A Pilot Empowerment Program

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ABSTRACT

Physicians and advanced practice providers often lack structured opportunities to develop personal and professional skills, critical for reducing burnout and enhancing job satisfaction. To address this, Brown Medicine's Division of General Internal Medicine introduced the Personal Development Empowerment Series, a cost-effective faculty development initiative integrated into the existing schedule. The series includes sessions that focus on topics like imposter syndrome, assertiveness, and time management, blending education with interactive activities to promote practical application. Facilitated by psychologists and motivated peers, the lectures have been well received, with faculty appreciating its emphasis on reflection and cognitive-behavioral strategies. This replicable initiative fosters a supportive work culture, boosts morale, and highlights the importance of personal growth. This program demonstrates that affordable, home-grown interventions can significantly impact well-being and organizational culture.

KEYWORDS: personal development, burnout prevention

In medicine, significant emphasis is placed on acquiring medical knowledge and managing risk, yet there is limited support for physicians and advanced practice providers (APPs) to develop personal and professional skills. Building these skills can reduce burnout by enhancing job satisfaction, fostering a stronger professional identity, and reinforcing a sense of competency among physicians and medical educators. Research indicates that physicians who engage in coaching programs focused on personal development experience less emotional exhaustion and a greater sense of purpose. For example, a 2019 study published in *JAMA Internal Medicine* found that physicians who participated in a sponsored coaching program reported improvements in quality of life and resilience.¹ Similarly, a 2018 study in the *Annals of Family Medicine* highlighted that team-based care and skill-building programs contributed to increased work control among physicians, resulting in reduced burnout.²

While evidence supports the benefits of coaching programs, these are often systems-level interventions requiring significant resources, including skilled instructors, time,

Table 1. Faculty suggestions for personal development content

Faculty Topic Suggestions	Empowerment Series Sessions
Managing self-doubt	Imposter Syndrome
How to set boundaries	Avoiding People Pleasing
Assertive vs aggressive behavior	Assertiveness Training
How to improve time management	Taking Back Your Evenings
Growth mindset	Maintaining an Adaptive Practice
How to say no	
How to be efficient	

and funding. Recognizing the need to foster personal and professional growth in a more cost-effective manner, Brown Medicine's Division of General Internal Medicine developed the Personal Development Empowerment Series. This initiative was integrated into the existing faculty development schedule, occurring for one hour over lunch twice per month, maximizing faculty accessibility. Topics for the series were gathered from faculty via email and meeting discussions, then refined with input from the division's well-being committee (see **Table 1**). We are fortunate to have three psychologists within our division who volunteered to contribute to content creation and delivery, though many of the topics may be best delivered by motivated peers who can speak to best practices. Each session incorporates didactic components to educate faculty on common challenges and promote effective coping strategies, alongside interactive portions that address real-world scenarios.

The Personal Development Empowerment Series has been well received, with faculty expressing appreciation for the opportunity to explore these essential topics. Physician well-being is shaped by factors at both individual and systemic levels, and this series emphasizes cognitive and behavioral strategies that can be applied broadly. By providing protected time for self-reflection and growth, we aim to normalize these practices and highlight their importance. We are proud of this highly affordable initiative, which other divisions can easily replicate. Potential barriers include a shortage of knowledgeable speakers in certain areas and scheduling challenges.

Faculty development programs that highlight reflective practice, work-life balance, and career planning have shown significant positive impacts on well-being and job

satisfaction.³ By addressing providers' holistic needs, division-sponsored development programs foster a supportive work environment, boosting morale and promoting a positive organizational culture. We are committed to continuing this series within our division and supporting the ongoing development and well-being of our faculty.

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Collaborative Wellness Initiatives: Involving Physicians to Address Burnout in Healthcare

JUDSON BREWER, MD, PhD; LIA ANTICO, PhD

ABSTRACT

Physician burnout is a pressing issue in healthcare that demands effective wellness interventions. Enhancing wellness resources is challenging and this article highlights key insights for successful initiatives. It emphasizes the importance of evidence-based and user-centered design, which involves engaging physicians in the development and implementation of wellness programs. For example, mindfulness training programs designed with clinician input were tailored to fit their busy schedules and addressed their specific needs, resulting in significant reductions in cynicism and emotional exhaustion among participants.

Additionally, the article advocates for a dual approach that targets both organizational and individual factors to effectively combat burnout. By fostering a culture of self-care and resilience in both education and the workplace, healthcare systems can improve well-being and engagement among current and future employees. Ultimately, collaborative and sustained efforts to implement validated interventions are essential for achieving lasting improvements in healthcare environments.

KEYWORDS: burnout; empathy fatigue; digital therapeutics; organizational-level intervention; individual-level intervention

INTRODUCTION

In recent years, the conversation around physician burnout has shifted from isolated incidents of personal struggle to a systemic issue that affects the entire healthcare ecosystem.¹⁻³ The COVID-19 pandemic accelerated this burnout, but the problem has been festering for years.³ Addressing physician well-being is no longer seen as optional; it is a necessity. The path forward requires a thoughtful, evidence-based approach that addresses both organizational and individual needs, with a special focus on designing interventions that are tailored to healthcare professionals. Recent studies, such as the clinician-driven mindfulness program by our team, offer possible pathways for how we can move beyond surface-level fixes to create lasting, meaningful change.⁴

THE IMPORTANCE OF USER-CENTERED DESIGN IN BURNOUT INTERVENTIONS

For too long, wellness programs in healthcare have failed to gain traction, often because they are designed without the input of the very professionals they aim to serve.^{5,6} User-centered design is a cornerstone in industries like technology and product development,⁷ but it has been underutilized in healthcare wellness initiatives. Involving healthcare professionals in the design process makes interventions more tailored, effective, and aligned with the specific challenges these professionals face daily.

Take, for example, the mindfulness training program designed by Brewer and Antico, called “From Burnout to Resilience.”⁴ This program was specifically created with input from clinicians, ensuring that it addressed the real-world stressors that lead to burnout, such as cynicism and emotional exhaustion. The program was delivered in formats that fit into the busy schedules of healthcare professionals in medicine – an audio podcast and a free app-based platform – so that the content could be reviewed during commutes or breaks, instead of adding another item to an already overloaded schedule. In particular, it includes seven 15-minute modules featuring real-stories shared by clinicians and mindfulness exercises designed to identify and break “habit loops” in clinical practice⁴ – repeated patterns of automatic behavior. For instance, a clinician might hear a patient express feeling of anxiety, frustration, or hopelessness. The clinician empathizes deeply, feeling the strong urge to immediately act and fix the situation. The involvement of clinicians in the development process ensured the program was both accessible and relevant, addressing issues like empathy fatigue and the emotional toll of patient care. Physicians from various specialties, along with other clinicians, were recruited to help tailor the content and format to their needs and schedules. More details on the development process and participant involvement can be found below.

This user-centered approach fosters a sense of ownership among healthcare professionals.⁸ When individuals feel that they have contributed to a solution, they are more likely to engage with it and promote it among their peers. In Antico & Brewer’s study, clinicians were engaged as pilot testers, providing feedback at every stage. We identified habits of empathy fatigue contributing to burnout through literature and physician interviews, then created script-based content

for a “minimum viable product” (MVP). We tested the audio course with 40 clinicians in two rounds. In round 1, 10 physicians reviewed each module for clarity and usefulness, then refined the training with real-life vignettes. In round 2, 30 clinicians confirmed content relevance and contributed more vignettes.⁴ This iterative process allowed the program to evolve based on real-world input, ensuring it met the diverse needs of clinicians. This approach ensured the intervention was grounded in evidence-based strategies and user insights, making it adaptable to changing needs.

THE NEED FOR BOTH ORGANIZATIONAL AND INDIVIDUAL-BASED INTERVENTIONS

Burnout is a multifaceted issue that requires solutions targeting both the organizational environment and the individual healthcare worker.⁹ Organizational-level interventions might include changes like improving staff-to-patient ratios, redesigning inefficient workflows, or fostering a culture of support and collaboration.^{9,10} These changes can alleviate systemic stressors that lead to burnout. For instance, a hospital might aim to reduce administrative burdens or increase leadership support, both of which have been shown to contribute significantly to burnout.

However, individual-based interventions are equally important.⁹ Programs that focus on building resilience, emotional regulation, and stress management can empower healthcare workers to manage the pressures of their job more effectively.¹¹ The mindfulness training program from our pilot study is one example of an individual-focused intervention that yielded significant results. Participants reported a 33% reduction in cynicism and a 25% reduction in emotional exhaustion, key dimensions of burnout, after completing the program. Additionally, the program led to reductions in anxiety and worry, both of which are critical in helping healthcare providers maintain their mental health in high-stress environments.⁴

Addressing burnout at both the organizational and individual levels has a synergistic effect.⁹ When healthcare professionals feel supported by both their institution and the resources available to them personally, they are more likely to engage in wellness programs. Antico & Brewer’s study demonstrated that clinicians who participated in the mindfulness program reported increased self-compassion and nonreactivity, essential skills for managing the emotional labor of healthcare work.⁴ These improvements were reinforced by institutional support, signaling that wellness was a priority at all levels.

Implementing wellness interventions from both angles can create a ripple effect. Leadership’s prioritization of wellness encourages staff to take mental health seriously. Additionally, promoting self-awareness and self-care early in medical and nursing education is key to preventing burnout and enhancing well-being in future clinicians. By fostering

a culture of self-care and resilience, healthcare systems can create a more engaged and less burned-out workforce. In our study, mindfulness training helped providers develop practical tools to navigate both personal and systemic stressors.⁴

THE CRITICAL ROLE OF VALIDATED, EVIDENCE-BASED INTERVENTIONS

In a healthcare system where resources are often limited, it is essential to maximize the impact of wellness initiatives. This is where validated, evidence-based interventions come into play. Programs that have been rigorously tested and proven to reduce burnout offer a more reliable return on investment, both in terms of financial resources and human capital.⁹

Developing an evidence base for potential interventions starts with pilot testing and then replication. For example, our program was tested in two separate nonrandomized pilot studies, both of which showed significant reductions in cynicism, emotional exhaustion, and anxiety among participants. These outcomes were measured using validated tools like the Maslach Burnout Inventory¹² and the Generalized Anxiety Disorder-7 scale,¹³ ensuring that the results were not only significant but also replicable. By focusing on mindfulness, self-compassion and tolerance of uncertainty – both well-studied strategies for improving mental health – the program provided clinicians with practical tools that could be easily integrated into their daily routines.⁴ One such tool involved noticing and mapping the elements of habitual patterns, paying attention to how these patterns manifest in the body and mind. This practice helps clinicians recognize when they are caught in a habit loop and enable them to break free from it. For example, it encourages cultivating self-compassion and care, while helping individuals step out of the self-judgment loop. However, identifying a “signal” is just the first step. Randomized controlled trials are a critical next step to control for expectancy, time and other non-intervention-related variables.

In addition to testing efficacy, scalability and fidelity are important factors to keep in mind when developing interventions. For example, digital platforms that are commonly used (e.g. podcast formats, apps etc.) are designed to be accessible to a wide range of busy individuals. These formats allow clinicians to engage with content at their own pace, reducing the likelihood that time constraints prevent participation. This flexibility is crucial in healthcare, where schedules are often unpredictable.

Ecological measurements – such as job satisfaction, patient-centered care, and staff engagement – can provide hospitals with a holistic view of how well an intervention is working.¹⁴ Including these in gathering an evidence base for potential interventions will likely help budget-constrained institutions identify value that will pay dividends in terms of decreased staff turnover.

CONCLUSION

A user-centered design process would ensure that wellness programs are tailored to the specific needs of clinicians. By addressing both organizational and individual needs, the hospital or healthcare system could foster a more supportive, resilient workforce. And by implementing validated, evidence-based interventions, the positive impact of these initiatives would be felt for years to come. This is the future of burnout interventions in healthcare – not a quick fix, but a collaborative and sustained effort that acknowledges the complexity of the problem and addresses it from all angles.

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Truly Attending: Cultivating Attention, Presence and Self-Awareness Through Narrative Medicine Workshops

MARIAH STUMP, MD, MPH, FACP; MARION MULL MCCRARY, MD, FACP; FARIHA SHAFI, MD, FACP

ABSTRACT

Narrative Medicine is an international discipline at the intersection of humanities, the arts, clinical practice and healthcare justice. This discipline aims to deepen skills of self-awareness, presence, attention and creative capacities and evokes our capacity to attend to the emotional undercurrents of narrative stories both in spoken and written form. Through group discussion and human connection of sharing stories/writing and creative exchange, we expand justice, equity, attention to self and others, and how we interact with our complex healthcare system. A one-hour narrative medicine workshop has been developed with the goal and intention for other medical educators, faculty, and leaders in the field of well-being to be able to reference this step-by-step curriculum and replicate it in their home programs in order to mitigate burnout and promote well-being, connection and community.

KEYWORDS: Narrative medicine, workshop, physician burnout, well-being, medical education

BACKGROUND: THE WHY

Narrative Medicine is an international discipline at the intersection of humanities, the arts, clinical practice and health care justice. Arising at Columbia University in 2001, primarily through the work of Rita Charon, MD, and her colleagues, narrative medicine has developed principles and practices that equip clinicians to better comprehend their patients' experiences and perspectives so as to deliver equitable and effective health care.¹ This discipline aims to deepen skills of self-awareness, presence, attention, creative capacities and evokes our capacity to attend to the emotional undercurrents of narrative stories, both in spoken and written form.² Through using literary analysis skills and reflective writing, clinicians practice honing their attention to the meaning, the essence, and the process of experiences and perspectives. The goal is to improve communication between patients and the healthcare team, cultivate empathy and thereby deliver more effective and equitable care.³

Through group discussion and the sharing of stories/writing and creative pieces, we expand justice, equity, attention to self and others, and promote healing.

Beyond thinking about the medical exam in order to reach an accurate clinical diagnosis, practices in Narrative Medicine aim to address the relational and psychological dimensions that occur in tandem with physical illness. For example, the diabetic patient who is unable to improve their blood sugar because they are depressed and feeling hopeless at the loss of a loved one.

Illness is a collaborative. It is not just a list of symptoms that culminates in a diagnosis. Illness, particularly living with chronic conditions, is a story that weaves its way into patient's lives and the interaction between patient and clinician.⁴ Stories have always been used for healing and we learn through and remember stories. When your grandparent told you a story – chances are you remember it – to the point where you could retell the story nearly word for word.

"Communication and how well providers can listen and support patients can shape the entire arc of healing. Using the lens of narrative medicine we can move towards person-centered care, viewing the person as a whole by better understanding their story. Educating our students so that they can hear and share these perspectives will influence how they practice in the community when they enter the workforce."⁴

Narrative Medicine workshops in medical education have been found to be helpful for both medical student burnout reduction and building resilience.^{5,6} In addition, resident workshops in Narrative Medicine have also been found to promote well-being, reduce burnout, and increase empathy.⁷⁻⁹ Given this, often medical educators and faculty tasked with leading well-being workshops may seek guidance in how to initiate or lead this type of workshop.

This article will guide an educator, faculty, well-being leader/facilitator on how to lead a group through a narrative medicine workshop in less than one hour with the hopes of bringing more narrative medicine into medical schools, residency curricula, faculty workshops, lunch sessions/meetings, hospital administrator activity, allied health professional experiences and possibly in other settings as well.

METHODS: THE HOW

Narrative Medicine workshops can be designed for a 50–60 minute time slot.

Learning objectives of the session:

- Learn how narrative medicine can expand insight, creativity and connection that supports inclusion and a sense of belonging.
- Explore the impact of narrative practice on team building and burnout prevention.
- Experience two different models of narrative medicine that can be used in groups of physicians and clinical learners, in interdisciplinary teams and with patients.

PART 1: BRIEF INTRODUCTION TO THE FIELD OF NARRATIVE MEDICINE

It is recommended to provide the group with background on the history of narrative medicine, how it is a recognized discipline, and show outcome data about why it is meaningful to engage with and study this field. In addition, the benefits of honing these skills should be clearly defined for providers, patients and the healthcare system. Recommended time: 10 minutes

PART 2: CLOSE READING

A piece of literature is offered to the group for analysis and close reading. Generally, a short poem is selected. The poem is first read by the facilitator of the session. The participants are instructed to listen to the poem and try and attune themselves to the emotional undercurrent being expressed in the words. The facilitator then asks for a second reader. The poem is then read a second time by a participant volunteer. After the second reading the facilitator asks the participants to break up in groups. Depending on the number of participants the size of groups can vary but ideally there are no more than eight people per group to allow for a smaller group to promote sharing, equal time for conversation and trust building with the group.

Once in their group, the facilitator asks the participants to share their impressions of the poem in terms of tone, themes, quality of sound expression in the words, emotional themes evoked when hearing it read. They might want to consider the following guiding questions in their group:

Frame: What do we know about the author?

Plot: What happens?

Form: How is the story told/from what perspective? (Narrator, character, place, scene, gestures, point-of-view, dialogue, mentation, conflict, irony, syntax (how are sentences shaped?), diction (word choice and quality of speech).

Time: How does time operate in the story or poem?

Desire: What does the author want us to know?

The group is given about 10 minutes to discuss the poem and share with each other. The facilitator then brings the attention to the full group and asks if anyone wants to share their impressions with the larger group. Alternatively, a spokesperson from the smaller group can share one or more impressions on behalf of their other group members.

PART 3: REFLECTIVE WRITING

Participants are brought out of their groups for an individual exercise in reflective writing. The writing is on a particular prompt that is offered by the facilitator. Generally, the prompt relates to one of the themes that have been expressed and evoked by the poem selected for close reading to have the participant engage more deeply with the theme in the form of a written reflective narrative.

Example prompts

- Write about a time you were surprised by emotion.
- Can you recall the last time you felt joy?
- Describe a situation when time stood still for you? What was that like?

Participants are asked to write for 10 minutes on a piece of paper. While it is understood electronic devices can be used to type, we encourage putting a pen or pencil to paper as it is a different experience and one that we often do not practice enough of given our electronic medical record. The prompt is kept up on a slide or a place where the participant can easily refer back to it. Encourage the participants that there are no wrong answers, that they do not have to share their work and that even if only a few sentences come out, that is OK! Provide reassurance that you do not have to be a “writer” to write and that all stories need readers – as it is up to the recipient to interpret them.

PART 4: INVITATION TO SHARE: RADICAL LISTENING/STORYTELLING

After the 10 minutes, participants are invited to share their work with the larger group. If this feels intimidating, and depending on the dynamics of the group, it is optional to have participants break into their original group to share, but it is often beneficial for the entire group to hear participants writing, so all participants have the chance to benefit from their story. After a participant shares, the facilitator asks if someone in the group would like to respond to the storyteller. The listener will reflect back what they heard to the storyteller, just as they did in the close reading exercise done earlier with the piece of literature. After everyone who wants to respond to this, storyteller has had a chance to share. The storyteller is asked how it feels to share their story. This is repeated with another participant sharing their story with the remaining time.

PART 5: CLOSING

If this activity was moving for participants, encouraging a home practice of journaling is a good place to start for processing clinical experiences. In addition, starting a narrative medicine interest group or monthly writing group where this format is used in order to build a community that encourages reflection, sharing and storytelling.

DISCUSSION

The limitations of this workshop are few. There is a growing need for wellness/well-being curriculum and often well-being leaders/champions struggle to find implementable strategies that hone skills of empathy and community building. This workshop is free, requires no associated costs and is low risk. Participants with underlying depression, anxiety or trauma may be triggered by some of the topics. However, the themes in the literary works are common themes encountered in medicine and in life. Participants are not forced to volunteer to read, or share their work and they may silently participate if that is more comfortable for them. We often encourage participants to “dip their toe in” at first and may go through their first workshop as an observer and may feel comfortable participating once they build trust with the community. Even just as an observer, this is a very valuable learning experience.

CONCLUSIONS

Narrative Medicine is a discipline that can be utilized for improving provider well-being and as a strategy for mitigating burnout. Narrative Medicine curricula can be structured in hour-long workshops which are implementable into noon conference or morning report time frames, lunch sessions and evening workshops. They can be virtual or in person. Given the flexibility of providing this workshop in a feasible amount of time, this curriculum can be offered several times through the year as a way to weave narrative medicine into medical school, residency, faculty development or for employee-wellness initiatives focused on team building. It is our intention for this program to be something that can be implemented at other academic or hospital centers and in any healthcare learning environment.

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Disclaimer

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Disclosures

None.

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What Well-Being in Medicine Means to Me: A Letter From a Future Physician

DEEYA PRAKASH; LAUREN ALLISTER, MD

My childhood best friend Caitlin died by suicide when we were 14 years old. I say it like this to you because this was how it was presented to me: a gut punch. One moment we were picking yellow dandelions and daring each other to eat them. The next moment I was alone, left with a wound that would ache for years to come. My mother sat me down in our sunroom as she told me, unsure where to place her hands or how to say the words. She eventually settled on hands around my shoulders, words soft and quick to not betray her own grief.

It was difficult to move forward, and in a sense, I have yet to do so. Coming to terms with a loss from suicide was new for me; learning what the term even was, and how it came to be was another endeavor entirely. I found myself blundering aimlessly for months afterwards.

Luckily, I was coming of age in a new era. I entered high school, and the internet was burgeoning with mental health awareness and suicide prevention campaigns. I was quick to join this movement, numbed by new words like depression and self-harm, forcing myself to learn, process, understand. It was not hard to find places to go and causes to join. As times were progressing, the new generation was starting to crack away at the pre-existing stigma around mental health. What had previously been taboo was now openly discussed, what had previously been silent was now a designated awareness month. As the culture was changing, the youth shouted from the rooftops, and I found my place among them.

Then in 2020, my sophomore year of high school, the world shut down. I found myself confined to my 8-by-10 room in the suburbs of Cincinnati, Ohio. My family and I watched the death tolls rise, terrified for the future and paralyzed by the uncertainty.

As an aspiring physician, every bone in my body ached to help the cause. For those of us who were interested in a medical career, immersing ourselves in hospital culture (either via observing, volunteering, or research) was usually the first step. In 2020, the only people allowed in hospitals were practicing physicians, decked head to toe in PPE, braving the storm. Hospitals were superspreaders, warzones. No teenager with doe eyes and a dream was getting anywhere near one.

As healthcare teams focused on addressing the direst emergency, there was another pandemic wreaking havoc: the suicide crisis. Social isolation, mass unemployment, and

an overall sense of hopelessness were only a few of COVID-19's ripple effects, plummeting the mental health of the world and contributing to an alarming escalation in suicide rates. I realized then that my work in suicide prevention had not only become increasingly important – it was now my way of contributing to the cause.

I formed an online community, and together we encouraged people to donate, raised awareness for the growing suicide rate, and provided helpful resources and information. Most importantly, we practiced our own self-care, realizing firsthand what it meant to protect our own mental health. We also realized another shared goal: many of us were also aspiring physicians.

While the pandemic continued well into our high school years, my cohort was not deterred but rather emboldened by this new cause. The internet was at our fingertips and the surge of online activism, the social media movement for suicide prevention, and mental health awareness became the alternative to the pre-pandemic era of hospital volunteerism and in-person opportunities. We found ourselves fulfilled, helping in our own unique way.

As the pandemic waned and the hospitals opened, our focus on mental health never diminished. The COVID pre-medical generation had been acculturated to hold mental health advocacy in high regard, emphasizing wellness in our own lives and to the people around us. With adolescents already at such a high risk for suicide, the subsiding of the pandemic did nothing to quell the rising rates, and we continued to fight to bring awareness and action to mental health and well-being. We were motivated by personal narratives and touched by our pandemic unity.

Now most of the pandemic pre-medical students have finally stepped into hospitals. We are learning the excitement and privilege that comes with tending to the needs of a patient and prioritizing their care. Our COVID experience, and our work in the well-being and mental health spaces, has also given us a unique perspective: we believe that prioritizing patient well-being does not have to mean sacrificing our own. We understand the priority that personal well-being needs to have in our workplace and have the tools and experience to advocate for it. For these reasons, we as the new generation of physicians not only place emphasis on mental well-being but find it central to our vision of the future of medicine.

Looking back, we recall our campaigns and fundraising, our long-standing self-care practices, and especially our friends and loved ones. The breaking down of the stigma around mental health care, the relentless activism, and the prioritization of well-being resources are steps in the right direction for the culture of medicine. I think often of what a difference these cultural values might have made for Caitlin.

Mental health and suicide prevention may have been our foot in the door of medicine, but it is now what we have come to expect when we walk through that door as the next generation of physicians.

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Suicide Prevention Resources

If you or a loved one is experiencing thoughts of suicide, caring and confidential support is available 24/7 through the **988 Suicide & Crisis Lifeline**.

In Rhode Island, you can find comprehensive suicide prevention resources at preventsuicideri.org.

Physicians seeking confidential behavioral health support can access the **Rhode Island Physician Health Program** through rimedicalsociety.org.

Healthcare workers can join the advocacy efforts of the **Dr. Lorna Breen Heroes' Foundation** at drlornabreen.org.

The foundation reduces burnout and improves well-being by advising healthcare organizations on evidence-based initiatives, reducing mental health stigma, and funding research and programs that support healthcare professionals.