“Your Wellness Program Is Interfering With My Well-Being”: Reducing the Unintended Consequences of Wellness Initiatives in Undergraduate Medical Education

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Abstract

Physician burnout rates are on the rise due to increasing clerical workload, reduced sense of efficacy, and moral injury. Untreated, burnout can lead to medical errors, a decline in empathy, and, in extreme cases, suicide. Medical students experience burnout associated with maladaptive coping strategies, and lack of exercise. Physicians and medical students who practice regular self-care have higher well-being scores and better patient outcomes. To mitigate burnout, undergraduate medical institutions have adopted student wellness programs. However, medical students may perceive mandatory wellness activities as ineffective, promoting unhealthy competition and cultivating toxic positivity. At A.T. Still University's School of Osteopathic Medicine in Arizona, we have worked to reduce the unintended consequences of wellness programs. Strategies to reduce these consequences include providing optional activities at meetings, detailing related scientific evidence and encouraging faculty and staff participation. The current article delineates these mitigation strategies.

Keywords: wellness; medical student wellness; wellness programs; mental health stigma; self-care; wellness consequences

Background

*Medice, cura te ipsum,* or physician heal thyself, is attributed to ancient Greek playwright Aeschylus and emphasizes the incongruity between a physician's readiness to care for others while neglecting personal well-being (Aeschylus, 1995). As an occupational phenomenon, burnout is caused by unsuccessfully managed chronic workplace stress...
(World Health Organization, 2019) and is characterized by exhaustion, job-related negativism or cynicism, and decreased professional efficacy (Dewa et al., 2014; Shanafelt et al., 2015). Research suggests physician burnout rates are rising, exacerbated by increased clerical workload, reduced sense of efficacy, and perceived moral injury (Shanafelt et al., 2016). Distinct from burnout, moral injury is distress caused by responsibilities that conflict with personal morals (Litz et al., 2009; Dean, Talbot and Dean, 2019). For physicians, the inability to care for patients because of some constraints can lead to moral injury.

Like practicing physicians, medical students are also at increased risk of burnout and moral injury (Brazeau et al., 2010; Dyrbye et al., 2014). Approximately 49% of medical students in the United States experience burnout during their preclinical and clinical years (Ishak et al., 2013; Brazeau et al., 2014; Cecil et al., 2014). When untreated, burnout can lead to negative behaviors, such as medical errors, unethical conduct, the decline in empathy, psychotropic drug use, and, in extreme cases, suicide (Dewa et al., 2014; Han et al., 2019). Because medical students rarely seek help for mental health concerns and usually are not actively involved in their own healthcare promotion, they have an increased risk of loss of altruism and empathy (Dyrbye, Thomas and Shanafelt, 2005; Sreeramareddy et al., 2007; Dyrbye et al., 2017). As shown in Table 1, heightened levels of distress, ineffective coping strategies of self-blame or denial, and lack of physical exercise are major contributors and predictors of medical student distress and burnout (Cherkil, Gardens and Soman, 2013; Ishak et al., 2013; Cecil et al., 2014; Chun et al., 2014; Matheson et al., 2016).

Table 1. Important contributors and predictors of medical student distress and burnout

| Academic pressures                   |
|--------------------------------------|
| Educational financial debt           |
| Personal life events                 |
| Learning environment                 |
| Exposure to human suffering          |
| Lack of physical exercise            |
| Stopping self-health promotion activities |
| Sacrificing lifestyle health activities |
| Self-blame                           |
| Denial                               |

A New Paradigm: Burnout Prevention

The literature suggests that physicians with consistent daily self-care routines have better psychological well-being profiles, provide better quality care to patients, and have a larger percentage of patients who adopt healthy lifestyles (Kuhn and Flanagan, 2017; Dyrbye, Shanafelt and West, 2019; Shanafelt et al., 2020; Trockel et al., 2020). Further, research suggests those with established personal self-care habits positively influence their patients to take an active role in healthcare activities and practice self-care (Sanchez-Reilly et al., 2013). Physician well-being has been positively correlated with empathy and compassionate patient care, and the use of mindfulness and self-compassion has been correlated with sleep and resilience scores (Tawfik et al., 2019; Baguley et al., 2020). Therefore, early development of effective self-care habits may prevent declines of health and well-being in medical students and promote healthy habits for future practicing physicians (Hojat et al., 2004; Erogul et al., 2014; Paro et al., 2014; Matheson et al., 2016; Frajerman, 2020). In 2004, the Institute of Medicine highlighted the need for incorporation of self-care and wellness education in the undergraduate medical school curricula (Cuff and Vanselow, 2004). In 2010, the Office of the Surgeon General recommended that physicians and their clinic staff practice healthy lifestyle
behaviors so they can be role models for patients (Benjamin, 2010).

Several organizations have prioritized wellness initiatives in graduate medical education. For instance, the National Academy of Medicine’s Action Collaborative on Clinician Well-Being and Resilience is meant to address wellness concerns (National Academy of Medicine, 2021). The National Institutes of Health have allocated $3.13 million for 5 new research networks dedicated to the study of emotional well-being (National Institutes of Health, 2021). In July 2018, the Accreditation Council for Graduate Medical Education (ACGME) updated graduate medical education program requirements in Section VI so burnout prevention measures were included to encourage a "culture of well-being" and promote a preventative versus reactive approach (Accreditation Council for Graduate Medical Education, 2017). Examples of these ACGME requirements are prioritizing physician well-being, protecting patient time, decreasing non-clinical obligations, creating an environment free of harassment or coercion, and providing personal time for medical and dental appointments (Accreditation Council for Graduate Medical Education, 2017). Despite this graduate medical education focus on wellness, to our knowledge, there are no institutional requirements or competencies at the undergraduate medical education (UME) level. However, initiatives are underway to develop student wellness competency and support UME student well-being innovations, such as those developed by the American Medical Association’s Accelerating Change in Medical Education Consortium (American Medical Association, 2018).

Undergraduate Medical Education Wellness Initiative

Several undergraduate academic medical programs have proactively implemented student wellness programs and resources for the early prevention of burnout (Slavin, Schindler, and Chibnall, 2014; Drolet and Rodgers, 2010; Bitonte and DeSanto, 2014; Dyrbye, Satele and Shanafelt, 2017; Novak et al., 2020; Bagby-Stone, 2021). As the number and comprehensiveness of wellness initiatives have grown, so have the implementation strategies. Table 2 presents examples of the tactics used by undergraduate medical schools to increase self-care to reduce student distress (Gaw, 2017; Bagby-Stone, 2021).

Table 2. Undergraduate medical education wellness initiatives

| Faculty Advisor Student Wellness Promotion Training program |
|-------------------------------------------------------------|
| Peer-to-peer wellness advisors                               |
| Peer support groups                                         |
| Peer mentorship                                             |
| Monthly wellness screening                                  |
| Longitudinal wellness curriculum*                            |
| Yoga and other fitness classes                              |
| Virtual culinary medicine*                                  |
| Study-a-thons with snacks and massages                      |
| Longitudinal wellness score(s) survey*                       |
| Wellness retreat                                            |
| Wellness center                                             |
| Personal growth education*                                  |
| Behavior changes plans                                      |
| Wellness lectures*                                          |
| Wellness electives/lifestyle electives*                     |
| Mental health intake and treatment with a counselor         |
| Annual health fair                                          |
| Wellness newsletters                                        |
| Wellness events*                                            |
*Indicates wellness initiatives used at our institution.

Although research suggests students who actively participate in self-care have a better quality of life and lower stress levels (Ayala et al., 2018; Calabrese, 2019), medical students, in particular, may perceive daily self-care and an emphasis on well-being as having an opposite effect than intended on mental health (Papish et al., 2013). As shown in Table 3, perceived negative consequences of wellness initiatives include vulnerability to stereotyping, shaming, stigma, loss of autonomy, and loss of productivity (Frank, Hedgecock, and Elon, 2004; Schutt et al., 2021). Therefore, strategies are needed to mitigate these unintended consequences of wellness initiatives and encourage medical student adoption.

**Table 3. Perceived unintended consequences of wellness programs and related mitigation strategies**

| Unintended Consequence | Mitigation Strategy |
|------------------------|---------------------|
| Lack of effectiveness  | Include the use of evidence-based positive psychology strategies in the learning curriculum. Make activities optional and encourage participants to explore stress management and self-recharge techniques. |
| Cognitive dissonance   | Encourage and support faculty and staff to participate and use the same wellness techniques during class. |
| Unaddressed moral injury | Discuss and address exposure to compassion fatigue, moral injury, secondary trauma, and exposure to suffering. |
| Loss of productivity   | Include frequent but short wellness activities as part of existing small group and large group settings. |
| Loss of confidentiality | Use encryption, de-identification, and no documentation on the academic record. |
| Unhealthy competition  | Encourage competition with only the self and the growth mindset. |
| Toxic positivity       | Promote and encourage self-compassion and gratitude practice and provide neuroscience of resilience. |

**Unintended Consequences of Wellness Programs**

**Perceived Lack of Effectiveness**

Wellness program engagement requires the participant to buy in and perceive the activity as a worthwhile use of time (Kruger et al., 2007). An identified reason for the lack of participation in wellness and health promotion programs is the perception that the intervention will not lead to significant benefits (Gold et al., 2015). At our institution, A.T. Still University's School of Osteopathic Medicine in Arizona (ATSU-SOMA), we emphasize student engagement in evidence-based education about neuroscience, neuroplasticity, and positive psychology tools to provide objective evidence of the efficacy and purpose of wellness interventions (Rosenzweig et al., 2003; Sharp and Burkart, 2017). For example, highlighting the effects of mindfulness practices for improving patient care and reducing disease is one way to use evidence-based education to show benefit. More specifically, by providing peer-reviewed scientific research articles, such as systematic reviews of randomized controlled trials, that demonstrate the efficacy of interventions (Warnecke et al.; Bond et al., 2013; Wasson, Barratt, and O'Brien, 2020), we give students the opportunity to comprehend the effect of interventions that improve patient care outcomes. We also explain that such evidence-based interventions and activities have been shown to enhance student performance by improving
well-being, resilience, and self-awareness (Wasson, Barratt, and O’Brien, 2020).

**Cognitive Dissonance**

Another unintended consequence of wellness programs is that students may be deterred from well-being activities because of incongruent messages that cause cognitive dissonance (Schrepel et al., 2019). Further, students may perceive wellness activities as stress-reducing but without addressing the root causes of distress (Camp and Sadler, 2019). Examples of these causes include distress-related academic performance expectations, the rigorous clinical environment, moral injury, and the cognitive dissonance of caring for patients but not oneself (Benbassat, 2013). Lack of consistent participation and engagement in recommended wellness activities by faculty and staff may compound this issue (Weingartner et al., 2019; Yazdi et al., 2019). Without consistent participation of faculty and staff, students may feel that wellness programs lack authenticity and sincerity, while simultaneously espousing the contradictory message of "do as I say not as I do." Such lack of participation may also reveal unconscious bias and lack of institutional commitment to student self-care (van Ryn et al., 2015). Likewise, addressing only individuals, and not the institution or the culture, does not address moral injury or compassion fatigue. Failure to address the institutional culture may be the result of a misconception that self-care alone will prevent burnout (Rothenberger, 2017). Resolution of this issue may require addressing the health system culture (competition and hierarchy) of moral injury and secondary trauma. At ATSU-SOMA, cognitive dissonance is indirectly addressed because we include staff in wellness activities and faculty members help lead those activities. Future initiatives will address cognitive dissonance more directly through the education of faculty and staff regarding moral injury, burnout, and resilience-building tools.

**Unaddressed Moral Injury**

Moral injury is distress from moral dissonance, which can cause burnout in healthcare workers, and is experienced as the incongruity between assigned responsibilities and personal morals (Dean, Talbot and Dean, 2019). This distress is exacerbated by secondary trauma (e.g., when healthcare workers experience the suffering of others) and by inequity in healthcare resources (Sinclair et al., 2017). Moral injury mitigation strategies include education and increasing awareness of this phenomenon. Recently, discussions about racial justice and equity have increased this awareness and relevance to current health system issues because of the COVID-19 pandemic (Weingarten et al., 2020). At ATSU-SOMA, pedagogical content about health system sciences, social determinants of health, and approaches to underserved care are included in the humanities curriculum in the first year. Our strategy includes the use of narrative medicine and open discussions. Given that people of color are most at risk for premature death because of differences in healthcare resources access, this curricular content is particularly relevant (Elias and Paradies, 2016). Another approach used at ATSU-SOMA is embedding students at community health centers nationwide, so they have early exposure and experiences in underserved communities. As a result, students are exposed to the deficiencies and solutions already within the healthcare system. Even though coping strategies can help individuals build resilience and awareness, system-wide policy solutions are needed to truly address this issue long term.

**Loss of Time**

Although unintended, participants of wellness programs may perceive wellness activities as an infringement on their time and productivity. Specifically, these programs cause loss of time with family, interfere with previously allotted time for pre-existing self-care, and reduce the time for productive academic preparation. Because of the rigorous nature of undergraduate and graduate medical education, time is a commodity, and time management is an essential skill for successful learning and adaptation in medical school. For residents, lack of time remains the biggest barrier to participation in wellness activities and pursuit of mental health services (Aaronson et al., 2018). Perceived time loss from wellness activities can be mitigated by using curricular time in class, scheduling "bite-sized" activities (1-5 minutes), and making participation nonmandatory. At ATSU-SOMA, we start weekly small group clinical case
studies with 5 minutes of mindfulness and provide time management education at orientation and ongoing support at our learning center. In addition, lifestyle and wellness learning objectives are incorporated into our clinical presentation curriculum over the first 2 years of education, with supportive activities in core clinical rotations in years 3 and 4. More studies are needed to determine the optimal work-life balance to reduce medical error and burnout rates in UME, GME, and medical practice.

Loss of Confidentiality
Although those who actively participate in self-care have a better quality of life and lower stress levels (Ayala et al., 2018; Calabrese, 2019), students may be reluctant to access wellness program activities because of concerns about confidentiality, privacy, and stigma (Hendricks-Sturrup, Cerminara, and Lu, 2020). Some students may prefer to address their wellness in private; others may believe that their information, such as answers to survey questions, will be shared in such a way that future job acquisition or malpractice insurance coverage will be affected (Hendricks-Sturrup, Cerminara and Lu, 2020). This concern is related to the consequences of public exposure to a mental health issue affecting professional credibility throughout one’s career. In 2017, Hill described this stigma as feeling "branded, tarnished, and broken in a system that still embroiders a scarlet letter on the chest of anyone with a mental health condition." (Hill, 2017)

In one study, medical residents avoided receiving medical care at their home institution for fear of stigma and related backlash (Moutier et al., 2009). The UC San Diego Healer Education Assessment and Referral Program found that medical students did not pursue mental health benefits for fear of repercussions and long-term consequences to their academic record and careers (Downs et al., 2014). To address this concern at ATSU-SOMA, we de-identify survey results, share only composite trends, and do not discuss individual results in group settings.

Promotion of Unhealthy Competition
Workplace wellness programs, which have existed longer than medical school wellness programs, are known to promote unhealthy competition (Aslanyan, 2020). Further, comparisons with others in the organization regarding weight loss, exercise hours, or Fitbit outcomes can promote unhealthy behaviors (Aslanyan, 2020). Sometimes, these comparisons disenfranchise those who would most benefit from a wellness program. For instance, an overweight employee may be unwilling to participate in a weight-loss contest. With exercise-related competitions, those who already value activity are more likely to participate than those who would most benefit from increased activity. At ATSU-SOMA, we ask students to focus on themselves, so they compete only with themselves. To encourage this behavior, we emphasize a growth mindset rather than a fixed mindset (Ng, 2018). With a fixed mindset, personal characteristics, such as intelligence or other abilities (e.g., resilience), are considered static and unchangeable, so success depends on inherent qualities, and assessment uses comparisons with an equally fixed standard. In contrast, a growth mindset embraces the human capacity for adaptation and uses previous failures to advance personal and professional growth. With this mindset, there is only room for personal growth since comparisons to others lack value without a fixed standard (Ng, 2018). At ATSU-SOMA, we remind students that medicine is a collaborative endeavor. Research suggests interprofessional collaboration results in better patient outcomes (Zwarenstein, Goldman, and Reeves, 2009). Therefore, physicians need to be able to collaborate, instead of competing, with others to be successful, so we encourage collaboration and this mindset in our students.

Toxic Positivity
Toxic positivity is defined as "the overgeneralization of a happy, optimistic state that results in the denial, minimization, and invalidation of the authentic human emotional experience" (Gross and Levenson, 1997; Quintero and Long, 2019). In practice, toxic positivity means difficult emotions are rejected and replaced with a cheerful manner, which is often a facade. When this positivity is used to silence authentic emotions, it becomes toxic. Because toxic positivity can make people believe that their difficult emotions are wrong and that they are only
allowed to feel happy, it can cause harmful feelings of shame. Wellness programs may unintentionally promote toxic positivity if mitigation plans for this outcome are not in place. Popular culture frequently equates wellness with living one's "best life" at all times in an unconditionally positive manner. This outlook may lead to unattainable expectations of happiness and perfectionism, which cause guilt and feelings of failure when expectations are not achieved. There are many ways to avoid toxic positivity once it is identified and understood. For instance, viewing wellness through a growth mindset is very helpful to shift perceptions. Further, perceived imperfections can become opportunities for growth to help students develop more balance and wellness. However, meaningful support through wellness programs is needed. Students should not be pressured to be optimistic or positive all the time, which is not the goal of well-being. Rather, students should be taught that "it's ok to not be ok." Therefore, we should acknowledge the emotions of our students and not ignore or de-emphasize negative ones. Examples of toxic positivity statements and alternative statements are presented in Table 4. Wellness programs should show people how to handle their emotions and promote self-compassion for better self-acceptance and resilience, so it is important to set realistic expectations for wellness initiatives that normalize imperfect self-care and relapses in behavior change. At ATSU-SOMA, we have informally addressed this issue by acknowledging and normalizing the spectrum of emotions and have formally addressed it with regular opportunities to practice and learn the science of self-compassion. Students are encouraged to personalize their wellness experience with a year-end reflection activity about what works for them individually.

Table 4. Alternative statements to use to avoid toxic positivity

| Toxic Statement                                      | Nontoxic Alternative                                                                 |
|-----------------------------------------------------|--------------------------------------------------------------------------------------|
| Physicians always need to stay positive.            | It is okay to feel not okay.                                                        |
| If you are too emotional, you cannot treat patients.| Your emotions can help you connect with patients.                                   |
| It used to be worse, i.e., "stiff upper lip."       | Adversity is part of the human experience; you are not alone.                       |
| Medical school has always been hard.                | You are not alone in feeling that medical school is challenging.                    |
| Happiness is a choice.                              | It is "normal" to not feel happy all the time.                                       |
| If you fail in medical school, you will fail your patients, and failure is not an option. | Failure is a part of succeeding and can be seen repeatedly before success.          |
| If you find medical school hard, you should have picked a different career. | That must be hard, so looking back on this, we should try to see how to use it to help us grow. |
| This too shall pass.                                | Your feelings are valid and legitimate.                                             |
| Things happen for a reason.                         | I am sorry this happened. How can I help?                                            |

Conclusion

In UME, there is a need to identify and control the antecedents of stress and burnout. Further, we need to improve our prevention strategies at the individual and organizational levels. Many UME institutions are attempting to meet these goals but have encountered unintended consequences of wellness initiatives. However, identification of these potential consequences may result in better wellness programs and improved well-being experiences for students,
faculty, and staff. Currently, there is a paucity of information about the unintended consequences of wellness initiatives. Specifically, more information about the rate, prevalence, and frequency of these consequences in UME wellness programs is necessary. The strategies adopted at ATSU-SOMA may mitigate these consequences. Our early incorporation of wellness and well-being into the curriculum, coincident with the implementation of a wellness program that includes the participation of faculty and staff, may be useful to optimize results and reduce burnout of undergraduate medical students.

**Take Home Messages**

- Burnout rates are increasing for physicians, residents, and medical students because of maladaptive coping strategies.
- Unlike graduate medical education, undergraduate medical education lacks well-being competencies.
- Perceived unintended consequences of wellness programs include loss of effectiveness, cognitive dissonance, unaddressed moral injury, loss of productive time, loss of confidentiality, unhealthy competition, and toxic positivity.
- Undergraduate medical education wellness programs may not mitigate the perceived unintended consequences of well-being promotion.
- Mitigation strategies for unintended consequences of wellness programs include increased awareness of scientific evidence, use of short interventions, optional participation, and use of class time.

**Notes On Contributors**

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**Appendices**

None.
Declarations

The author has declared that there are no conflicts of interest.

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