

***Wellness in physicians:
A Concept That Needs to Start Early and Continue
Throughout Our Career***

Most of us choose the medical profession as a career because of our interest in the scientific subject and service to humanity. We assumed these two basic attributes would provide a career with long lasting intellectual and spiritual fulfillment. However, internal and external pressures at work often seem to provide more stress and less satisfaction. Variety of factors such as the time constraints, intense physical, mental and emotional demands and work-home interference make physicians vulnerable to burnout. Adding to this vulnerability are common characteristics seen in physicians such as perfectionism, competitiveness, and an exaggerated sense of responsibility with an unforgiving attitude toward errors.¹ Chronic exposure to stressors creates a state of Allostatic Load (AL) by dysregulation of several major physiological systems, including the hypothalamic–pituitary–adrenal (HPA) axis, the sympathetic nervous system and the immune system.² ³Over time, the cumulative biological burden of AL, can lead to a variety of adverse physical and mental health consequences such as hypertension, cardiovascular disease, depression, anxiety, insomnia and loss of mental concentration. A recent neuroimaging study demonstrate that psychosocial stress can reversibly disrupts important processes such as creativity, flexible problem solving and working memory in pre Frontal Cortex (PFC).⁴ Fortunately, this same study describes that reducing stress reverses the negative effects on the PFC. Burnout can manifest itself by other symptoms such as procrastination, extreme anger and frustration, overeating or loss of appetite, impatience and poor personal hygiene, negligence of one’s responsibilities, substance abuse and family conflicts.

Multiple investigations suggest that a significant increase in the incidence of depression, substance abuse and burnout starts early in medical school.⁵ ⁶ Review of literature illustrate that residents in all specialties are at high risk of experiencing all three components of emotional exhaustion, depersonalization, and feeling of inefficacy of burnout.⁷ ⁸ ⁹ These reactions results in anxiety and depression, threatens individuals’ job, health, and

social relationships and impacts the quality of patient care.^{10 11 12 13} The alarming persistence of the high prevalence of burnout with its deleterious consequences after residency in both the academic (37-47%) and private practice setting (55-67%) calls for the serious attention. Each year, 300 to 400 physicians take their own lives; approximately one a day.¹⁴ The 2000 national study on causes of death, showed that mortality due to suicide among male physicians was nearly 1.5- 3.8 fold higher than among other professionals.¹⁵ Female physicians' suicide rate far exceeds that of the general population by 3-4 times.^{16 17 18} The review of the above facts calls for effective modalities to prevent burnout as well as valid interventions to promote physician's well-being starting from medical school and continuing throughout the entire professional life cycle of a physician.^{19 20 21 22}

Modalities in Building the physician's resilience

It is imperative to note that each of us respond differently to different stressors. Individuals' reactions depend on a variety of factors such as the nature of a particular stressor, the duration of exposure and intensity of the stressor, the situational and environmental factors, the interpretation and meaning of the stressor to the individual, and the coping mechanisms.

Quite often, our interpretation of demands dictates the level of stress we experience. Regular tracking of our personal and professional values and priorities, our daily experiences and our thought pattern gives us valuable clues into the importance, frequency and contributing factors of stressors. Many times brainstorming sessions with colleagues, supervisors, peers, family and friends show us different perspectives and approaches for handling problems. Adopting a healthy lifestyle by paying attention to our nutrition, exercise pattern and sleep recharge our energy. Attending workshops outside the medical field, learning to practice deep breathing techniques, imagery and meditation help us achieve inner balance.

Several theories and empirical models have been suggested to promote wellbeing in different populations. At Yale-New Haven Hospital, the wellness intervention is a part of our Anesthesiology residents' curriculum. The intervention "Coping with Work and Family Stress™",²³ is designed by David Snow, PhD, a Professor of Psychology in Psychiatry at Yale University. The model is based on Pearlin and Schooler's²⁴ hierarchy of coping mechanisms:

1) responses that change the situation; 2) responses that control the meaning of the stressful experience; and 3) responses that function more to control stress after it has emerged. The intervention consists of four components. The first is aimed at eliminating or modifying sources of stress so that continuing efforts to cope with a particular stressor are less needed. This part of the curriculum includes training on the identification and analysis of stressful situations and the use of effective problem solving and communication skills, and strategies for increasing resident's social networks. The second component involves instruction in the use of approaches to modify cognitive and appraisal processes. The third component emphasizes stress management (e.g., deep breathing, muscle relaxation, creative visualization, eating patterns and exercise) and minimizing the use of avoidance coping (e.g., reinforcing alternatives to the use of alcohol to reduce tension, and teaching refusal skills). The final component integrates the course material through the creation of participants' own personal stress management plans. The intervention places a major emphasis on the role of stress, coping, and social support in relation to the occurrence of substance use and psychological symptoms and teaches residents effective methods for reducing risk factors and enhancing protective factors.²⁵

Promoting physicians' resilience cannot be achieved without increasing the awareness on the deleterious effects of chronic stress in our profession. This challenge should be faced with an open attitude towards promoting physicians' wellbeing and the support of our institutions and professional organizations. The good news is that building resilience and recovering from burnout, while takes time, are worthwhile and possible.

¹ Henning K, Ey S, Shaw D. Perfectionism, the imposter phenomenon and psychological adjustment in medical, dental, nursing and pharmacy students. *Med Educ.* 1998;32:456-464.

² McEwen, B.S. Physiology and neurobiology of stress and adaptation: central role of the brain. 2007. *Physiol. Rev.* 87, 873–904.

³ McEwen, B.S., 2000. Allostasis and allostatic load: implications for neuropsychopharmacology. *Neuropsychopharmacology* 22, 108–124.

⁴ Liston C et al. Psychosocial stress reversibly disrupts prefrontal processing and attentional control. *Proc Natl Acad Sci U S A* 2009 Jan 20; 106:912.

⁵ Givens JL, Tjia J: Depressed medical students' use of mental health services and barriers to use. *Acad Med* 2002; 77:918–921

⁶ Mosley TH Jr, Perrin SG, Neral SM: Stress, coping, and well-being among third-year medical students. *Acad Med* 1994; 69:765–767

⁷ Thomas NK. Resident burnout. *JAMA* 2004; 292(23):2880-9.

⁸ Hull SK, DiLalla LF, Dorsey JK. Prevalence of health-related behaviors among physicians and medical trainees. *Acad Psychiatry* 2008; 32(1):31-8.10.

- ⁹ Hsu K, Marshall V. Prevalence of depression and distress in a large sample of Canadian residents, interns, and fellows. *Am J Psychiatry* 1987;144(12):1561-6.
- ¹⁰ Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* 2002;136(5):358-67.
- ¹¹ Institute of Medicine. *To err is human, building a safer health system*. Washington, DC: National Academy Press; 1999.
- ¹² Doan-Wiggins L, Zun L, Cooper MA, Meyers DL, Chen EH. Practice satisfaction, occupational stress, and attrition of emergency physicians. Wellness Task Force, Illinois College of Emergency Physicians. *Acad Emerg Med*. 1995;2:556-563.
- ¹³ Baldwin PJ, Dodd M, Wrate RW. Young doctors' health--I. How do working conditions affect attitudes, health and performance?. *Soc Sci Med* 1997;45(1):35-40.
- ¹⁴ Center C, Davis M, Detre T, et al: Confronting depression and suicide in physicians: a consensus statement. *JAMA* 2003; 289:3161-3166
- ¹⁵ Frank E, Biola H, Bunnett CA: Mortality rates and causes among US physicians. *Am J Prev Med* 2000; 19:155-159
- ¹⁶ E. S. Schernhammer and G. A. Colditz, Suicide Rates Among Physicians: A Quantitative and Gender Assessment (Meta-Analysis) *Am J Psychiatry*, December 1, 2004; 161(12): 2295 - 2302.
- ¹⁷ E. Schernhammer Taking Their Own Lives -- The High Rate of Physician Suicide *N. Engl. J. Med.*, June 16, 2005; 352(24): 2473 - 2476.
- ¹⁸ Frank E, Brogan D, Schiffman M. Prevalence and correlates of harassment among US women physicians. *Arch Intern Med* 1998;158:352-358.
- ¹⁹ Shanafelt T, Sloan J, Habermann T. The well-being of physicians. *Am J Med*. 2003;114(6):513-517.
- ²⁰ Deckard GJ, Hicks LL, Hamory BH. The occurrence and distribution of burnout among infectious diseases physicians. *J Infect Dis*.1992;165:224-228.
- ²¹ Whippen DA, Canellos GP. Burnout syndrome in the practice of oncology: results of a random survey of 1,000 oncologists. *J Clin Oncol*. 1991;9:1916-1920.
- ²² Schindler BA, Novack DH, Cohen DG; et al. The impact of the changing health care environment on the health and well-being of faculty at four medical schools. *Acad Med*. 2006;81(1):27-34.
- ²³ <http://www.theconsultationcenter.org/WFS.htm>.
- ²⁴ Pearlin L, Schooler C. The structure of coping. *Journal of health and social behavior*. 1978;19: 2-21.
- ²⁵ Snow DL, Kline ML. Preventive interventions in the workplace to reduce negative psychiatric consequences of work and family stress. In: Mazure C, ed. *Does stress cause psychiatric illness?* Washington DC: American Psychiatric Press; 1995. p. 221-70.