Introduction

• It is a great honor to be able to take care of people and be able to be a part of people’s lives at very intimate and vulnerable times.

• Even though the role of a physician is incredibly important and can be incredibly fulfilling, the role is fraught with an exceptional amount of stress and great responsibility.

• Literature describes physician burnout as a common issue present throughout all levels training that continues well into careers (Shanafelt et al. 1377-1385).

• Burnout is a syndrome characterized by a loss of enthusiasm for work (emotional exhaustion), feelings of cynicism (depersonalization), and a low sense of personal accomplishment. Burnout can affect professionalism, affect quality of care, increase risk for medical errors and lead to early retirement.

• Burnout can also cost the physician personally with compromises to physical and mental health as well as relationships (Shanafelt et al. 1377-1385).
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**Why is this topic important?**

Burnout affects every facet of one’s life—both personal and professional. I know personally there were times in medical school when I was burned out, particularly at points during my third year rotations. Recognizing that this is a common issue affecting physicians at all facets of their careers is an important first step. I feel having hobbies and a life outside of medicine will help combat this as well.
Burnout Defined

- First introduced by Freudenberger in the early 1970’s.
  - “The state of fatigue or frustration that resulted from professional relationships that failed to produce expected rewards.” (Poghosyan, Aiken, and Sloane 894-902)
- Later Freudenberger, Richelson and Maslach
  - “psychological syndrome involving emotional exhaustion, depersonalization and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations.”
- However, in Maslach’s view
  - burnout undermines the care and professional attention given to people who are in need of service professionals such as teachers, police officers, lawyers, doctors and others (Poghosyan, Aiken, and Sloane 894-902).
- The World Health Organization International Classification of Diseases definition
  - “state of vital exhaustion.” (Ishak et al. 236-242).
  - There is no consensus on the measurement of burnout. The most commonly used index is the Maslach Burnout Inventory (MBI).
  - This tool captures three dimensions of burnout: emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA).
Burnout and Medical School

- From the beginning of physician training, medical students are constantly exposed to psychosocial factors that can contribute to burnout syndrome (Costa et al. 573-579).

- Medical training can be highly psychologically and emotionally toxic with the continued difficulties of entrance exams, the volume and pace of required information, classroom exams and board exams.

- The clerkship years offer difficulties of their own while students vacillate between learning new and incorporating previously learned information, interacting with ill patients, impressing upper level residents and attendings all while studying for shelf exams.

- The residency application and match process is anxiety provoking and expensive.

- The transition from medical student to resident is anxiety provoking enough, but many medical students also face one to two-hundred thousand dollars worth of student loan bills that will be coming up for payment soon.

- Of 4\textsuperscript{th} year medical students who were 1-2 months away from graduation in 2006, 2007 and 2008, 49% endorsed at least 1 symptom of severe burnout (high emotional exhaustion or high depersonalization) and 38% endorsed symptoms of depression.

- Higher rates of burnout and distress were seen in female students and single medical students respectively (Dyrbye et al. 756-758).
Burnout and Residency

- High and complicated patient loads, sleep deprivation and expanding medical knowledge are just some of the work factors that residents face.

- Personal factors such as isolation, lack of support system, social problems, debt and future career planning can lead to feelings of being overwhelmed.

- The prevalence of residency burnout ranges varies among specialties and training years (Thomas 2880-2889). One study of internal medicine residents (measured by the MBI) showed that 4.3% of beginning interns met burnout criteria and by the end of that year the rate increased to 55.3%. Another study demonstrated that 76% met criteria (as measured by the MBI) regardless of postgraduate training level.

- A notable nationwide study by Collier et al looked at cynicism and humanism in internal medicine residents across the US. 61% of those surveyed admitted to becoming more cynical and 23% reported becoming less humanistic during training.

- Burnout rates vary among specialties as well. Martini et al 2004 showed an overall burnout rate of 50%, with rates ranging from 27% to 75% among specialties. The highest levels were in OBGYN at 75% and 63% in internal medicine and the lowest in family medicine at 27% (Martini et al. 240-242). Other studies have shown that all surgical fields correlate with higher levels of emotional exhaustion and depersonalization.

- The affects of other environmental factors such as gender, age, marital status and family life showed conflicting results when studied. Work factors such as time constraints and time demands as well as difficulty with time management predominately played a part in burnout.

- In an article comparing burnout rates for an entire perioperative team (nurses, certified registered nurse anesthetists, surgeons both resident and attending, anesthesiologists both resident and attending, scrub technicians and other non-degreed clinical care providers), the residents had the highest global burnout scores of all providers surveyed (Hyman et al. 194-204).
Numerous studies comparing specialties across the board indicate that 30-50% of practicing physicians experience symptoms of burnout at any point in time.

Studies have shown that US physicians have higher levels of burnout compared with US workers in other fields. Shanafelt et al assessed burnout comparing US physicians with workers in other fields. This study found that on average physicians worked 10 more hours per work per week with about 11% of the physicians working more than 60 hours per week with 40% responding that their schedules did not leave enough time for personal or family life.

Assessed via MBI, physicians were a higher risk of emotional exhaustion, depersonalization and overall burnout. The differences were preserved when men and women were analyzed independently.

Being older and married tended to lower burnout and working more hours per week increased burnout.

Compared with high school graduates, more education (bachelors, master, doctorate-non MD or DO) was associated with lower rates of burnout compared to physicians when adjusting for hours worked per week and other variables (Shanafelt et al. 1377-1385).
What to do....

- Little is known about how to best address and prevent burnout in medical practice. With healthcare reform, the use of physician extenders to help with chronic disease management and implementation medical homes with existing resources is needed to ensure successful implementation of reform.
- Policy makers and insurance companies need to work in collaboration with nurse and physician professional groups to determine optimal workloads.
- Tort reform, payment model reforms and incentives rather than payment reductions and penalties should all be addressed.
- Academic medical centers, medical schools and residency directors need to identify and address factors in the training process associated with burnout. Canada and the United Kingdom have already added self-care competency programs to medical education.
- In addition some residencies in the United States and Canada are developing Resident Wellness Programs (RWP) (Lefebvre 598-602). These programs are based on employee wellness programs, but are specifically for residents.
- In 1989 the Bell Regulations limited New York State medical residents to 80 hr work weeks and call no longer than 24 hrs. Later the ACGME developed the similar work hour restrictions, but maintained a maximum 30 hr call. In 2011 ACGME removed 30 hr call periods for interns and implemented a night float system instead. Interns can no longer work more than 16 hrs in a row.
- The common sentiment is that the work hour restrictions have improved resident quality of life esp in the areas of decreased depression, decreased emotional exhaustion, less risk of motor vehicle crashes, more time with family and more time to read. Improvements on in-service training exams and more women residents report having children during residency (Curet 767-776)(Dimitris, Taylor, and Fankhauser 290-296). However, studies have shown that the decrease in work hours, has only contributed to an increase 10-20% more sleep (Baldwin et al. 395-402). These improvements aside, burnout is prevalent as ever. Multiple studies have failed to prove that work hour restrictions have decreased medical error rates and some studies have shown to increase them due to multiple handoffs, cross coverage and communication (Curet 767-776) (Dimitris, Taylor, and Fankhauser 290-296).
- European Working Time Directive-1998. It limits employees to a 48 hour work week, 11 hours of rest a day and 1 day off per week, a right to a rest break if working more than 6 hours and four weeks of paid vacation each year (Tucker et al. 458-465). A gradual reduction to 48 hours for junior doctors was to be reached by August 1, 2009. This directive treated nurses and doctors as any other workers and did not address the unique nature of medical care. This act has been extremely controversial for both healthcare and healthcare education.
- Required humanities education for all medical students.
About skydiving . . .

- Puts a new perspective on stressful situations.
- Builds confidence.
- I get to be around good people who don’t care about what I memorized this week.
- I get out of the city, get outside and get in the air.
- When you are skydiving (and plummeting towards the earth) you can’t think about much else bothering you in life. . . .


