

Stress Management

- **Agenda and Learning Objectives**
- Case Begins – Topic 1: Stressors in residency (10 min)
 - Stressors in residency
 - Identify several common wellness issues related to stress amongst residents
 - Review the scope of the problem
 - Identify sources of stress for residents
 - Describe the negative effects of stress
 - Discuss coping strategies in residency
- Case Continues – Topic 2: Stress management (30 min)
 - Stress reduction techniques
 - Review several stress reduction techniques
 - Practice 1-2 techniques during the session
 - Personal Goal
 - Identify a goal to improve your personal health
 - Discuss reasonable expectations of your goal
 - Discuss implementation of your goal - barriers, constraints, etc.
 - Mindfulness
 - Define mindfulness
 - Review mindfulness practices
 - Strategies for mindfulness at work
 - Resilience
 - Define resilience
 - Discuss strategies for improving personal resilience
- Case Concludes (10 min)
 - Review Session Teaching Points
- **Case Begins – Topic 1 (10 min)**
 - TL is a second year resident at a high volume, high acuity hospital. He seems to be struggling and appears to be stressed out. You ask him how he is doing, and he tells you that he is behind in completing work obligations, has not time for himself or his family, and he feels like his life is falling apart.
- **Discussion Questions with Teaching Points**

- **Question 1:** What are several common wellness issues related to stress?
 - Define stress, define burnout, stress vs burnout
 - While stress can be seen as a sense of urgency that impels individuals to actively engage to meet a challenge, burnout is a condition that arises when stress becomes so severe relative to one's own emotional, cognitive, and/or physical resources that one loses motivation to perform and has a sense of hopelessness that leads to disengagement.
 - Burnout: affects up to 60% of physicians
 - 2 question MBI
 - The single questions with the highest factor loading on the emotional exhaustion (EE) ("I feel burned out from my work") and depersonalization (DP) ("I have become more callous toward people since I took this job") domains of burnout
 - TL says yes to both questions → high burnout
 - Consider displaying/sharing Medscape data
 - Display the graphic: Development of Burnout in the Work Environment
 - Depression: affects 30% of physicians
 - Substance abuse: affects 12% of physicians
 - Intimidation/Harassment: affects 55% of physicians
 - Sexual dysfunction: as high as 49% for females and 11% for males
- **Question 2:** What are some common sources of stress for residents?
 - Environment - high volume, high acuity
 - Communication and negotiation skills - patients, staff, team members, peers
 - Critical illness and injury, death and dying
 - Ineffective time management
- **Question 3:** What are the negative effects of stress?
 - Review graphic: Stress, Performance and Burnout
 - Negative effects occur when stress turns into distress
 - Distress and burnout lead to impaired performance, poor communication, increase in self-reported medical errors and much more
- **Question 4:** How do you cope with stress?
 - Show image of cartoon cat
 - Negative coping mechanisms: over-eating, binge eating, binge drinking, drug use, "partying", projecting onto others
 - Positive coping mechanisms: exercise, yoga, meditation, reflection, hobbies, dedicated time with family and friends, therapy
 - What have you tried? What works? What doesn't work?

- **Case Continues – Topic 2 (30 min)**

- TL had felt stressed out and burned out several months ago. You see him for the first time in months, and he looks really well and happy. You ask him how he is doing and what's new? He tells you that he started actively reducing his stress, setting personal goals for himself and has been performing daily mindfulness exercises and has felt great improvement in his overall well-being.

- **Discussion Questions with Teaching Points**

- **Question 1:** What are some common stress reduction techniques?
 - We discussed positive and negative coping strategies previously.
 - Combat Tactical Breathing
 - Breathe in counting 1,2,3,4; stop and hold your breath counting 1,2,3,4; Exhale counting 1,2,3,4; repeat
 - Let's practice this one now
 - Laugh out loud, belly laugh out loud. Laughing lowers cortisol levels and boosts endorphins.
 - Listen to music. Create a playlist of soothing music – think nature sounds or instrumental pieces. Upbeat songs and singing out loud are also effective.
- **Question 2:** Setting a personal goal, where to begin?
 - Display the calendar page
 - What are some areas in which you would like to set a personal goal to improve your wellness? Display short term goals slide.
 - Facilitate a guided discussion around goal setting. Use the examples of improving relationships, having a higher power, and sleep hygiene.
 - Improve Relationships: make time to call family and friends, schedule it ; commit to unplugging, put away your phone, tablet, etc.
 - Have a Higher Power: spend daily time with a higher power; find and engage with others who share you belief
 - Sleep Hygiene: blackout blinds or eye mask; go to bed 15 minutes earlier; keep your electronics out of your bedroom, no blue light before bed; use a weighted blanket
 - Discuss barriers to implementing short term goals. Time, money, fatigue, etc.
 - Discuss methods to overcome these barriers. Goals should be realistic, short term, do not need to be time, labor or financially intensive.

- Additional examples: taking the stairs so that you get 10 flights per day; eating a vegetable or fruit with every meal; eating more whole foods and less processed food; enjoy a meal with your phone in your pocket; dedicate 15 minutes per week to call family; find 5 minutes per day for reflection, meditation or prayer
- **Question 3:** What is mindfulness?
 - Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.
 - This will not come as a surprise to you, but your mind is a wandering mind. Killingsworth and Gilbert (2010) did a study published in Science using an iPhone app that gathered 250,000 data points on subject's thoughts, feelings and actions as they went about their lives. They found that humans spend a lot of time thinking about what isn't going on around them, contemplating events that happened in the past, might happen in the future, or may never happen at all. Indeed, mind-wandering appears to be the brain's default mode of operation, and furthermore, when engaged in mind-wandering, subjects reported increased negative emotion.
 - And as you focus, you engage the attentional networks and effectively switch off your default mode network, allowing you to complete a detailed skillful task successfully.
 - Display mindfulness coping techniques slide
 - Deep breathing
 - Meditation – this can be done in many different forms; sitting, standing, lying down or while in motion – handwashing, pacing the hallway, etc.
 - Reflective writing
 - Self-compassion
 - Gratitude practice
 - Training the attention, and reducing mind-wandering in a systematic way, allows for a sharper focus, a calmer mind and an increase in emotional well-being. The basic 'practice' of mindfulness is simple, find an anchor such as the breath, or sensory information such as sound, and bring all of your attention to bear on that anchor. When the mind wanders, which it naturally will, bring it back, without judgement, and in an alert but relaxed way, maintain your attention, then repeat.
- **Question 4:** What role does mindfulness have in preventing and treating burnout in practicing physicians?

- In a 2016 systematic review and meta-analysis of interventions to prevent and reduce physician burnout by West et al, it was found that both individual-focused and structural or organizational strategies can result in clinically meaningful reductions in burnout among physicians.
- Among the individual-focused strategies, mindfulness practice was noted to be more effective than other interventions. Krasner et al (2009) delivered a mindfulness program to 70 physicians and found a significant and sustained reduction in burnout. Fortney et al (2013) found that a brief mindfulness based training led to significantly reduced burnout among physicians and that this benefit was sustained when assessed 9 months after the intervention.
- Why is mindfulness useful to a practicing physician?
 - Thinking and feeling are what make us human, but at a high tone and pace they can be exhausting, and being able to maintain your attention on one thing, even for a very short period of time, is quite relaxing. Rather than becoming clouded by a high volume of extraneous thought with a sympathetically driven emotional tone, you can sit back a little mentally, allowing yourself to pay attention and become more situationally aware.
- **Question 5:** What are some ways in which TL can put mindfulness into action during his workday?
 - There's an app for that → display the mobile apps slide
 - Informal Mindfulness Practice 1: Walking to the Patient's Room - Walking practice involves focusing the attention on the sensation of the feet as they touch the ground. When done 'formally', it gives you a break from sitting in one position, and is usually done by walking slowly about 10 steps, before turning and walking back along the same way, whilst focusing the attention on the feet as the sensory anchor, as they touch and leave the floor. You can label your foot falls 'left' then 'right' as your attention goes back and forth. In TL's informal version of this practice, he takes the few seconds walking to the patient's room to grab hold of his attention and then broaden out and maintain that focus when he arrives at the door.
 - Have the group find some space in the room and practice this exercise
 - Informal Mindfulness Practice 2: Handwashing - After a successful patient encounter (clinic visit, daily visit on rounds, surgery, resuscitation), TL takes off his gloves and goes to wash his hands. This is an activity that we are required to do many times each day and is often a mindless activity best done quickly so that we can get on with the next thing. However, TL uses the physical sensations of handwashing as the anchor for his

attention, thereby turning handwashing into a powerful informal mindfulness practice. Grabbing hold of his attention he focuses on the sensations of the water on his hands, the texture, the temperature, how it looks, the feel of one hand as it moves over the other, the sound of the water. He attends to everything that is available to his senses about handwashing for as long as it takes to finish and then broadens out his awareness once more to the clinical environment around him before moving on to the next thing he has to get done.

- It's hard to practice handwashing in this group setting, but just to practice for one minute, focus your attention on your hands, move your hands over each other as if you are washing them. The physical sensation of one hand on another is just as good an anchor for your attention as the breath.
- Informal Mindfulness Practice 3: Food and Drink - TL is busy, but every now and then he remembers to be mindful. When drinking his coffee, he takes in its scent, warmth and taste, when eating his lunch he notes the feel, texture, taste and smell of his food. If even for one bite or one sip, it brings him into the present, and helps him manage the best clinical tool he possesses, his mind.
- **Question 6:** What is resilience?
 - Have the group come up with their own definitions and share them
 - The ability to return to the original form, position after being bent, stretched or compressed
 - Resilience characteristics: flexibility, being proactive, problem solving, optimism, focusing on goals, empathy
 - Display resilience research centre slide
 - Display developing physician resilience slide 1 – positive value, negative potential
 - Ask the group to come up with the burnout factors associated with each value
 - Guided discussion around potential resilience/mindfulness interventions to mitigate each set of burnout factors
 - Resilience is comprised of four dimensions: 1. attitudes and perspectives that promote self-efficacy and persistence; 2. balance and prioritization that foster a sense of self-control; 3. a desire to learn from difficulty (e.g. task-oriented coping); and 4. supportive relationships which can help face new challenges.
 - Discussion around activities that embody the 4 dimensions above
 - 1. attitudes/perspectives → optimism, realism, mindfulness
 - 2. balance/prioritization → schedule things that you love, control your schedule; protect things that keep you well

- 3. desire to learn from difficulty → reflection; decision to grow from difficult situations; overcome adversity
 - 4. supportive relationships → foster and protect your relationships with your social supports (family, friends, mentors)
- Display developing physician resilience slide 2
- **Question 7:** What are some strategies for improving personal resilience?
 - The '3 good things' exercise has actually been shown to reduce burnout in physicians.
 - Earlier in this module we defined burnout as a mixture of emotional exhaustion, depersonalization and a low sense of personal accomplishment. A researcher at Duke University, Dr. Sexton, defines burnout slightly differently. In his formulation, burnout is the impaired ability to experience positive emotion.
 - In a study with 148 residents at Duke, volunteers were asked to write down, just before going to bed, 3 good things that happened that day and label them with one of the 10 positive emotions that have been most closely tied to burnout: *joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love*. They could be relatively minor events such as a positive interaction with a patient or colleague, or a meal you enjoyed or being struck by the beauty of a scene. In the study group, there was a 15% reduction in burnout in the first 2 weeks, declining from 65% at baseline to 50% post-intervention. A year later 48% remained resilient, suggesting a lasting effect. The residents also reported significantly less depression in the post-intervention measures, less conflict, and better work-life balance. Look back at your day. Think of 3 things that went well for you during the day. Write them down or type them out. Spend a moment reflecting upon each of them. Focus on the positive emotion (e.g. joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love) attached to each of your three things.
 - Have the group perform this exercise during the session
 - Reflection is a key part of learning. The density of intense experiences that you go through in medical training often does not allow adequate time to process and learn from these events. Reflective writing is one method of allowing yourself the space to reflect on key events in order to learn from them.
 - Display reflect to increase resilience slide
 - Have the group perform a reflective writing exercise. We will take 5 minutes to write about a case that has significant meaning for you. It could be a difficult case or one that left a

mark on you for some other reason. This is a practice that you can engage in yourself when you feel the need to take time to process an event more completely.

- Online resources
 - www.apa.org › Psychology Help Center
 - <https://www.stepsforward.org/modules/improving-physician-resilience>
 - <https://wellmd.stanford.edu/healthy/resilience.html>

- **Case Concludes (10 min)**
 - TL has suffered from excess stress leading to burnout. But through increasing his resilience by utilizing stress reduction techniques and goal setting, practicing mindfulness and self-reflection, he has again found joy in the practice of medicine.

- **Case Teaching Points Summary**
 - Topic 1: Stressors in residency
 - Stressors: Environment - high volume, high acuity; Communication and negotiation skills - patients, staff, team members, peers; Critical illness and injury, death and dying; Ineffective time management
 - Stress: a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances. Stress can be positive and make one increase engagement. Stress leads to burnout when it becomes so great that one withdraws and disengages.
 - Burnout: physical or mental collapse caused by overwork or stress
 - Can be assessed with two questions
 - Affects physicians at very high rates compared to the general adult working populations and has many negative outcomes

 - Topic 2: Stress Management
 - Stress reduction techniques come in many forms. There is no one best technique, it is most important to find what works for you.
 - Goal setting is another way to reduce stress. Set one small, realistic goal to improve your personal health and manage your stress.
 - Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.
 - Mindfulness has been shown to reduce burnout in physicians.
 - Formal mindfulness practice involves training your attention by spending time focusing on a physical anchor such as the breath or sound.

- Mindfulness can be practiced on shift using informal practices such as walking, handwashing, threshold breathing and the body scan.
- Reflection: serious thought or consideration that aids learning and emotional processing.
- The three good things exercise has been shown to reduce burnout in physicians
 - 10 positive emotions that have been most closely tied to burnout: joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love → try to write using these positive emotions.
- Resilience: the capacity to recover quickly from difficulties; toughness. Resilience refers to the ability of an individual to respond positively to stress.
- Comprised of four dimensions: 1. attitudes and perspectives that promote self-efficacy and persistence; 2. balance and prioritization that foster a sense of self-control; 3. a desire to learn from difficulty (e.g. task-oriented coping); and 4. supportive relationships which can help face new challenges.

- **Facilitator Background Information**

- Definitions

Stress: a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances

Burnout: physical or mental collapse caused by overwork or stress; 3 domains – emotional exhaustion, depersonalization, and lack of sense of personal accomplishment

Mindfulness: the quality or state of being conscious or aware of something; a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations, used as a therapeutic technique.

Resilience: the capacity to recover quickly from difficulties; toughness

Reflection: serious thought or consideration; **self-reflection:** meditation or serious thought about one's character, actions, and motives

Burnout is defined by three domains: emotional exhaustion, depersonalization, and a lack of sense of personal accomplishment. While stress can be seen as a sense of urgency that impels individuals to actively engage to meet a challenge, burnout is a condition that arises when stress becomes so severe relative to one's own emotional, cognitive, and/or physical resources that one loses motivation to perform and has a sense of hopelessness that leads to disengagement. The condition of burnout is associated with many negative outcomes, including decreased productivity and decreased job satisfaction, increased risk of medical error, adverse effects on

patient safety, alcohol and drug use disorders, depression and anxiety, and risk of suicidal ideation.

Burnout is very common throughout medical training. During medical training, medical students have a 45 to 71% prevalence of burnout. This continues during residency, in which approximately 2/3 of residents are burnt out. While burnout rates vary across sub-specialties, the prevalence of burnout ranges from 25 to 75% in resident physicians. Duty hour limitations have not resulted in a decrease in the prevalence of burnout. Unfortunately, burnout is not a transient condition associated with the challenges faced during medical training. The prevalence of burnout in attending physicians is at least twice that observed in the general adult working population. Over 50% of practicing physicians meet the criteria for severe burnout, and the rates of burnout are increasing with a sense of decreased work life balance across all major specialties. Sources of burnout for practicing physicians include long work days, high patient volume, time pressures, poor sleep habits, high performance expectations, challenging patients, and personal fears regarding competency and changing roles in the workplace.

Burnout has been associated with specific coping strategies. Emotion oriented and avoidance oriented coping strategies, which include blaming, seeking distractions to separate from work, and substance use, are associated with increased risk of burnout. Task oriented coping strategies, those directed at improving self-efficacy, are associated with a decreased risk of burnout. Such strategies are directed at improving one's performance to meet challenges faced in the workplace. Recovery from the work environment is also an important factor in reducing risk of burnout. The failure to invest in recovery time can result in fatigue, a reduced sense of well-being, and lower performance at work. Inadequate recovery is associated with increased job stress, burnout, and lower levels of work engagement and life satisfaction. While shift work might seemingly aid in creating a clear separation from work, shift work is associated with increased risk of burnout unless accompanied by a focus on sleep hygiene (6 to 8 hours of sleep per day) and eight or more days off per month. Adequate job resources are a critical component to mitigating burnout in the workplace by directly influencing employee motivation and engagement as well as buffering the impact of job demands. A healthy practice environment relies on prioritizing self-care, focusing on providing safe and high quality patient care, and valuing the education of patients.

Resilience refers to the ability of an individual to respond positively to stress. Since burnout results in disengagement in the face of excess work stress, resilience is a central factor in reducing burnout. It is comprised of four dimensions: 1. attitudes and perspectives that promote self-efficacy and persistence; 2. balance and prioritization that foster a sense of self-control; 3. a desire to learn from difficulty (e.g. task-oriented coping); and 4. supportive relationships which can help face new challenges. Resilience is the result of the complex interplay between genetic predisposition and formative experiences. Interventions directed at

promoting resilience may include cultivation of professional and personal relationships, proactive engagement with personal limits, personal reflection, separating oneself from the moral injury inherent to medical practice (self-demarcation), and developing an understanding that actively choosing to value oneself can lead to improvements in both personal wellness and the quality of care one can provide at work.

A critical component to resilience is the capacity for mindfulness. Mindfulness is the ability to frame experience and reactions to experiences in a “big picture” or “long view” context. Mindful individuals exhibit an acceptance and realism about the limits of control over life circumstances. This understanding reduces the temptation to react immediately to stressful situations (reflexivity). In practice, this can be something as simple as taking a breath before reacting to bad news or an unexpected outcome and responding with inquisitiveness rather than anger or fear in an unfamiliar situation. Understanding the limits of one’s control over a situation can facilitate meaningful engagement in medical practice that requires witnessing human suffering without feeling overwhelmed by feelings of inadequacy or failure.

- **References:**

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- Howe A, Smajdor A, Stöckl A. Towards an understanding of resilience and its relevance to medical training. *Med Educ.* 2012;46(4):349-356.
- Mindfulness Practice Resources:
 - Attending: Medicine, Mindfulness & Humanity. Epstein, R. (2017)
 - UCLA Mindfulness Research Center Short Guided Meditations <http://marc.ucla.edu/mindful-meditations>
 - University of Massachusetts Medical School Mindfulness Center - MBSR programs in person and online. <https://www.umassmed.edu/cfm/>

- University of Rochester Medical School Mindful Practice Center
<https://www.urmc.rochester.edu/family-medicine/mindful-practice.aspx>
- Best meditation Apps 2018 Healthline
<https://www.healthline.com/health/mental-health/top-meditation-iphone-android-apps>