What Measures Need to be Taken to Promote the Well-Being of Vascular Surgeons in Today's Medical Climate

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Disclosure(s):
• None

Some sobering numbers:
• One doctor commits suicide in the U.S. daily – the highest suicide rate of any profession
• Incidence:
  – 28 to 40 / 100,000
  – more than twice compared to general population (12.3 / 100,000)

MAN OVERBOARD – RESCUED AFTER FALL FROM CRUISE SHIP

“MAN OVERBOARD!”

Suicidal Ideation

- 6% of surgeons reported suicidal ideation
- 25% sought help
- The rate is three-fold higher if physician perceived making recent major medical error (16% suicidal ideation)
- 39% reluctant to seek help due to repercussions for medical license

Shanafelt et al, 2011

At the beginning of the journey of our choice we do not anticipate that a journey itself can become a harmful environment
### Female Physicians are at Highest Risk:

- **White female physicians rate higher than working US population (age-adjusted ratio: 2.39)***
- **1.5% of US female physicians have attempted suicide***
- **Female physicians: fewer attempts; higher completion rate than other females***

(Sources: Schernhammer and Colditz, American Journal of Psychology, 2004; Petersen and Burnett, Journal of Occupational Medicine and Toxicology, 2008; Frank and Dingle, American Journal of Psychology, 1999; Center et al, JAMA, 2003)

### Burnout is increasing in prevalence

- **U.S. physicians who had at least one symptom of professional burnout:**
  - In 2011: 45%
  - In 2014: 54%
- **Projections from the Department of Health and Human Services suggest that by 2020, the U.S. will face a shortage of 50,000 physicians**
  - Likely to contribute to even higher burnout prevalence

(Sources: Duke Vascular, 2018)

### Well documented that burnout is associated with

- Increases in MEDICAL ERRORS and malpractice lawsuits
- Impaired professionalism
- Reduced patient satisfaction
- Increased staff turnover
- Depression and suicidal thoughts
- Motor vehicle accidents
- Musculoskeletal injuries among providers

(Sources: Duke Vascular, 2018)

### Surgeons, Medical Error & Burnout

- **Survey of US surgeons**
  - 9% reported major error in last 3 months
  - Self-reported error associated with increased risk of burnout, depression and suicidal ideation

(Sources: Duke Vascular, 2018)

### Risk Factors for Burnout

- Younger age children
- High frequency of call
- Hours worked
- Longer in practice
- **RECENT MEDICAL ERROR (vicious circle)**
- Compensation based solely on productivity
- Having more than 50% of professional effort dedicated to non-patient care tasks (administration, education, research)

### Vascular Surgeons?

- **Within the top tier of surgical subspecialists in terms of risk for burnout**
- **Report lower QoL compared to other specialties**
  - Together with trauma surgeons, urologists, ENT and general surgeons

(Sources: Duke Vascular, 2018)
“WE NEED BETTER GUARDRAILS”

We need better “guardrails”

- Address systems issues: engage HS actively
  - EMRs
  - OR inefficiency and utilization
  - Practicing to level of degree
- Services:
  - Food
  - Concierge
  - Gym
  - Special services (barista, chair massage, fitness training)

Systems Strategies for Improving Resilience

- Providing for Basic (and not-so-basic) Needs
  - Access to good food and water
  - Safe spaces to debrief, pause, & reflect
  - Support for EMR
- Creating Supportive Environments
  - Opportunities to interact with peers informally
  - Resilience training
  - Encouraging Life Beyond the Hospital
  - Community building
  - Family dinners
  - “Chore” support
- Leadership*

Impact of Organizational Leadership on Physician Burnout and Satisfaction

- Survey of physicians including measures of their leadership and burnout
- All dimensions of leadership correlated with burnout
- Each 1 point increase in composite leadership score associated with 3.3% decrease in burnout

Key Leadership Skills:
- Recognize
- Inspire
- Engage for input
- Give Feedback
- Promote professional Development

Etiology is multifactorial, but we can’t blame the providers for not being resilient

“YOU NEED TO LEARN TO SWIM!”
• We also DO need to take personal responsibility for our own well-being and there are well-documented strategies and techniques to accomplish this, but it takes a culture change, and that starts from the top.

- Optimism
- Role Models
- Facing Fear
- Physical Exercise
- Moral Compass
- Mental Exercise
- Religion and Spirituality
- Flexibility and Acceptance
- Social Support
- Meaning and Purpose

Personal Factors Contributing to Resilience

How About MSD?

- Review of 21 articles (5828 physicians)
- Estimates of MSD in review and meta-analysis:
  - Degenerative cervical spine disease: 17%
  - Degenerative lumbar spine disease: 19%
  - Rotator cuff pathology: 18%
  - Carpal tunnel syndrome: 9%
- From 1997-2015: degenerative spine disease increased (18-27%)
- Pain prevalence: 35-60%
- Leave / restricted practice / early retirement: 12%
- Significant underreporting: only 20% of those requiring intervention reported it to the hospital administration

- 40 articles with 5152 surgeons
- Symptoms:
  - Generalized pain: 68%
  - Back: 50%; Neck: 48%; Arm/shoulder: 43%
  - Fatigue: 71%
  - Numbness: 37%
  - Stiffness: 45%
- MIS surgery: significant increase in symptoms (OR 2.77 – 8)
- Most surgeons do not seek medical attention
Impact of micro breaks with exercises on surgeons:

- Standardized guided microbreak exercises (1.5 – 2 minutes) intraop in the sterile field at 20 - 40 minutes
- Exercises focused on the neck, back, shoulders, hands and lower extremities
- Improvement / no change in mental focus 88%
- Improvement in physical performance 100%

Movement training:

- Compare trainees who engage in movement training (e.g. yoga, core strength, ergonomics) beginning at the start of training may have a lower rate of MSK disorders at the end.

Impacting burnout: consider the spectrum

- The Society for Vascular Surgery recognizes burnout as a major threat to providers, patients, and learners
- As surgeons, we do need to own what we are responsible for, but institutions must take ownership as well

Summary

- Majority of burn out risk factors are preventable, but it's a heavy lift
- If we don’t make this a priority, we are going to face one of the biggest crises so far in medicine

Thank you