Finding Balance In A Medical Life

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Objective:
To encourage you to develop balance in your medical life
Lee Lipsenthal, MD
Cardiologist with Dean Ornish
Director of the Preventive Medicine Research Institute

Taught physician wellness for years
Died in 2011

Finding Balance in a Medical Life

Enjoy Every Sandwich

A really good friend who I miss very much…

https://www.youtube.com/watch?v=3UIFbOfWwYE
Balance

Social/Spirit

Mental

Emotional

Physical

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How Are We Doing?
Our health now

• Over all mortality is improving
• We now live roughly five years longer than other professionals.
• Physicians are still more likely to die from cerebrovascular disease, accidents, and suicide.
• 85% of physicians work >60 hrs/week
  – 8% of the normal population
• Thus suggesting a high stress life.

Erica F, Amer J Prevent Med, 2000;19: (3)
Survey of FL Medical Students

- 1144 students in 9 FL med schools
- 63% reported physical health had worsened in med school
- 61% reported their psychological health worsened
- 80% described their stress level as “significant” or “severe”
- 70% said they would benefit from psychological resources
  - 60% admitted they never used them
- Coping? – 70% binge drank, 50% used stimulants, 34% used opioids, 24% marijuana

Merlo LJ, Professionals Resource Network (PRN), FMA, 2014
Origins of Burnout & Stress

• System level
  – Employed physicians, increased workload, reduced autonomy

• Impact of residency
  – Increased knowledge base, burden of EHR/clerical time, sleep loss, new regulations

• Vicious cycle
  – Increased stress leads to reduced quality time with patients, increased medical errors, turnover, higher mortality in patients
Burnout

• Students:
  – 50% of medical students report burnout
  – 10% experience suicidal ideation

• Residents
  – 52% report burnout
  – 15% rated QOL “as bad as it can be” or “somewhat bad”

• Physicians
  – 38% - 67% report burnout
  – 23% of matched general population

https://www.mededwebs.com/well-being-index

Burnout
Average prevalence among U.S. physicians

Severe Fatigue
Average prevalence among U.S. physicians

Work-life Integration
Based on scores in U.S. physicians

Risk for Medical Error
Average prevalence among US physicians

Prevalence of Suicidal Ideation
Average prevalence among adults in U.S.
Physiological consequences of stress driven by catecholamines and cortisol

- Heart rate
- Blood pressure
- Blood flow to muscles
- Metabolic rate
- Digestion
- Blood clotting
- Immune response
- Blood sugar
- Respiratory rate
- Fluid retention
- Alertness
- Triglycerides and LDL cholesterol
- Inflammation
Sources of Resident Stress

• Heavy work load
• Volume of information to be learned
• Sleep deprivation
• Difficult patients
• Poor learning environment
• Social isolation
• Financial concerns
• Cultural issues and racism

Levey L, Acad Med 2001;76 (2)
The Speed of Change...
Straining emotional capacity

In 1940 there were only three medical journals! Today - hundreds!
How Did We Get This Way?

• We Are:
  – Intelligent
  – Caring
  – Sensitive
  – Inquisitive
We Are Also:

- Type A
- Competitive
- Perfectionist
- Safety Seeking
- Outside the “norm”
Type A

- Opinionated
- Judgmental of others
- Pressured to succeed
- Clipped pattern of speaking, forced smiles
- “Hurry sickness” – rushing against time
- Multi-tasking
- Aggressive beyond the need of the situation

- Not trusting others to do the job right
- Perfectionism
- Competitiveness
- The desire to be recognized for your accomplishments
- The need to prove self worth with performance
“A physician in training sees more trauma in one month than most others see in a lifetime”
Battle Stress / Efficiency and Exhaustion

- Soldier becomes "battlewise"
- Period of maximum efficiency
- Hyper-reactive stage
- Emotional exhaustion stage
- Period of overconfidence
- Vegetative phase

Days in combat

Degree of combat

0 10 20 30 40 50 60

Swank and Marchland 1946; redrawn from Mind-Body Medicine, Watkins 1997
High catecholamine states diminish cortical function
Brain - Heart Communication

Sympathetic

Parasympathetic
The Neural Heart

• The heart has a nervous system:
  – Afferent and efferent neurons
  – Ganglia
  – Local Circuit Neurons

  – Neurocardiology, Armour, JA and J. Ardell Eds.. - NY, NY, Oxford University Press
Location and Distribution of Intrinsic Cardiac Ganglia
An additional feedback loop;

Heart Rate Variability
Heart Rate Variability (HRV)

2.5 seconds of heart beat data

- 70 BPM (.859 sec.)
- 76 BPM (.793 sec.)
- 83 BPM (.726 sec.)
Low and High HRV

Low HRV = High Risk

High HRV = Low Risk
HRV In Surgery

• Problem: Surgeons in Sweden have higher death rate from CAD than general practitioners
• Laparoscopic procedures are increasing and seem to be fatiguing to the surgeons
• HRV study of surgeons and assistants during open v. laparoscopic colo-rectal surgeries
• Sympathovagal balance was worse, by HRV, during laparoscopic procedures

– Bohm, B et al; Arch Surg, vol 36 March 2001
Ascending Heart Signals

- **Amygdala:** Emotional Memory
- **Thalamus:** Synchronizes cortical activity
- **Medulla:** Blood pressure and ANS regulation

**Facilitates cortical function**

- Inhibits cortical function
Heart Rate Variability Can Be Intentionally Modified
Create Balance

Social/Spirit

Mental

Emotional

Physical

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Staying on the Balance Beam

• **Physical resiliency**
  – Exercise – goal: 150 minutes a week
  – Healthful, mindful eating
  – Sleep!!
  – Get into nature
    [https://www.youtube.com/watch?v=Bf5TgVRGND4](https://www.youtube.com/watch?v=Bf5TgVRGND4)

• **Mental**
  – Heart Math
  – Mindfulness
  – Diversity – reading, interests
Heart Math

• 3-step process
  – Heart focus – focus your attention on your heart
  – Heart breathing – breathe into your heart
  – Heart feeling – activate a positive emotion – gratitude or appreciation

• Can use a computer, emWave device or iPhone/Android app

HeartMath.com
Staying on the Balance Beam

The practice of paying attention - on purpose - in the present moment - without judgment.

-Jon Kabat-Zinn
Staying on the Balance Beam

Mind Changes Brain, Brain Changes Mind

Mindfulness creates space, shifting brain activity from the reactive amygdala to the thoughtful prefrontal cortex.
Staying on the Balance Beam

• Mindfulness practices
  – Mindfulness
  – Mindfulness Meditation
  – Mindfulness Based Stress Reduction
  – Mindfulness Based Cognitive Behavioral Therapy
Staying on the Balance Beam

- Mindfulness resources
  - University of California San Diego
    • [http://health.ucsd.edu/specialties/mindfulness/programs/mbsr/Pages/audio.aspx](http://health.ucsd.edu/specialties/mindfulness/programs/mbsr/Pages/audio.aspx)
  - University of Massachusetts
    • [http://www.umassmed.edu/cfm/mindfulness-based-programs/](http://www.umassmed.edu/cfm/mindfulness-based-programs/)
  - Mindful.org
    • [http://www.mindful.org](http://www.mindful.org)
- Apps – Calm, Headspace, Insight, Mindfulness
Create Balance

- Social/Spirit
- Mental
- Emotional
- Physical

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Staying on the Balance Beam

• Emotional
  – Connect with your patients – partnership leads to better outcomes and lower risk
  – **Use counseling resources!!!**
    • Awareness of the “downward slope”
  – Look for mentors
  – Journal
  – Some residencies have support groups
    • Balint groups
Staying on the Balance Beam

• Social & spiritual – find your path
  – Attend to your family (“First Things First”)
  – Church/religion
    • Physiological similarities of prayer, chanting and meditation
  – Volunteer
  – Hang out with “normal” (non-medical) people
But I Don’t Have Time!

- 10,080
- 4,800
- 2,940
- 2,340
- 150 (6%)
- 70 (3%)
But I Don’t Have Time!

– 10,080 – number of minutes in a week
– 4,800 – number of minutes in an 80-hr work week
– 2,940 – number of minutes if sleep for 7 hrs/night
– 2,340 – number of minutes left over
– 150 – number of minutes of exercise in a week
– 70 - number of minutes in HeartMath, mindfulness meditation, etc. in a week
This will help you to facilitate learning!
Next Steps?
Balance in a Medical Life

- Physical resilience
  - Builds endurance and promotes mental and physical recovery

- Emotional resilience
  - Creates the internal climate that drives performance

- Mental resilience
  - Focuses mental and emotional energy on the task at hand

- Social & spiritual resilience
  - Provides powerful source of motivation, determination and endurance
"Imagine life as a game in which you are juggling five balls in the air. You name them - work, family, health, friends, and spirit - and you're keeping all of these in the air. You will soon understand that work is a rubber ball. If you drop it, it will bounce back. But the other four balls - family, health, friends, and spirit - are made of glass. If you drop one of these, they will be irrevocably scuffed, marked, nicked, damaged, or even shattered. They will never be the same. You must understand that and strive for balance in your life."

-- Brian Dyson, CEO of Coca Cola Enterprises from 1959-1994
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Great Books


• *Enjoy Every Sandwich*, Lee Lipsenthal, Crown Archetype, NY, 2011
  – You can read the book, but it’s much better to get to audio book and hear Lee read it himself – incredibly powerful!

• *Mindfulness for Beginners: Reclaiming the Present Moment*, Jon Kabat-Zinn, Sounds True, Boulder, CO, 2014