A Path To Wellness:

*Avoid Crimes Against Wisdom*

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OPSO President
Disclosures

None
Learning Objectives

Physician Burn-out problem and solutions

STEP 1 Stress management and treatment

STEP 2 Nutrition for chronic disease

STEP 3 Exercise prescription
WHAT SEEMS TO BE THE PROBLEM, MRS. JOHNSON?

I FEEL THE WAY YOU LOOK!
Burnout: Definition, Symptoms, Causes

“physical or mental collapse caused by stress”

Sx: fatigue, insomnia, depression, anxiety, etc.

Causes: Many... work-life imbalance

www.Mayoclinic.org
Figure 1. Physician Burnout: 2015 vs 2016
FIGURE 1. Personal and professional repercussions of physician burnout.
FIGURE 2. Key drivers of burnout and engagement in physicians.
<table>
<thead>
<tr>
<th>Drivers of burnout and engagement in physicians</th>
<th>Individual factors</th>
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<td>Productivity targets</td>
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<td>Structure reimbursement</td>
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<td>Medicaid/Medicare</td>
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<td>Use of allied health professionals</td>
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<td>Ability to prioritize</td>
<td>Patient check-in</td>
<td>Use of patient portal</td>
<td>Requirements for:</td>
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<td>Efficiency/Process</td>
<td>Use of medical imaging</td>
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<td>Use of telemedicine</td>
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<td>Willingness to delegate</td>
<td>Use of allied health professionals</td>
<td>Institutional efficiency</td>
<td>- Meaningful use of EHR</td>
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<td></td>
<td>Ability to say “no”</td>
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<td>- Certification agency, facility regulations (CA-HIP)</td>
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<td>Meaning in work</td>
<td>Self-awareness of most personally meaningful aspect of work</td>
<td>Match of work to talents and interests of individuals</td>
<td>Organizational culture</td>
<td>Evolving supervisory role of physician (potentially less direct patient contact)</td>
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<td>Ability to shape career to focus on interests</td>
<td>Opportunities for involvement</td>
<td>Practice environment</td>
<td>- Required funding</td>
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<td>Doctor-patient relationships</td>
<td>Education</td>
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<td>Personal recognition of positive events at work</td>
<td>Research</td>
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<td>Leadership</td>
<td>Opportunities for professional development</td>
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<td>Communication/Messing</td>
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<td>Organizational norms</td>
<td>- Regulations</td>
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<td>Commitment to organization</td>
<td>Expectations</td>
<td>Expectations</td>
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<td></td>
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<td></td>
<td>Just culture</td>
<td></td>
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<tr>
<td>Control and flexibility</td>
<td>Personality</td>
<td>Degree of flexibility</td>
<td>Scheduling system</td>
<td>Pre-certifications for tests/treatments</td>
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<tr>
<td></td>
<td>Assertiveness</td>
<td>- Control of physician calendars</td>
<td>Policies</td>
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<td></td>
<td>Interpersonality</td>
<td>- Clinic start/end times</td>
<td>Affiliations that restrict referrals</td>
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<td></td>
<td>- Vacation scheduling</td>
<td>Fiduciary application practice guidelines</td>
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<td></td>
<td></td>
<td>- Call schedule</td>
<td></td>
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<tr>
<td>Social support and community at work</td>
<td>Personality traits</td>
<td>Collegiality in practice environment</td>
<td>Collegiality across the organization</td>
<td>Support and community created by Medical specialty societies</td>
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<td></td>
<td>Length of service</td>
<td>Physical configuration of work unit space</td>
<td>Physician lounge</td>
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<td></td>
<td>Relationship-building skills</td>
<td>Social gatherings to promote community</td>
<td>Strategies to build community</td>
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<td></td>
<td>Team structure</td>
<td>Social gatherings</td>
<td></td>
</tr>
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<td>Work-life integration</td>
<td>Priorities and values</td>
<td>Call schedule</td>
<td>Vacation policies</td>
<td>Requirements for:</td>
</tr>
<tr>
<td></td>
<td>Personal characteristics</td>
<td>Structure night/weekend coverage</td>
<td>Sickle-cell disease</td>
<td>- Maintenance certification</td>
</tr>
<tr>
<td></td>
<td>Spouse/partner</td>
<td>Cross-coverage for time away</td>
<td>Policies</td>
<td>- Licensing</td>
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<tr>
<td></td>
<td>Children/dependents</td>
<td>- Part-time work</td>
<td>Flexibility scheduling</td>
<td>- Regulations that increase clinical work</td>
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<td></td>
<td>Health issues</td>
<td>- Expectations/role models</td>
<td>Expectations/role models</td>
<td></td>
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</tbody>
</table>

**Note:** The table contains a detailed overview of factors affecting burnout and engagement of physicians, categorized into workload and job demands, efficiency and resources, meaning in work, culture and values, control and flexibility, social support and community at work, and work-life integration. Each category lists specific factors influencing each domain.
Acknowledge and assess the problem

Harness the power of leadership

Develop and implement targeted work unit interventions

Cultivate community at work

Use rewards and incentives wisely

Align values and strengthen culture

Promote flexibility and work-life integration

Provide resources to promote resilience and self-care

Facilitate and fund organizational science

FIGURE 5. Organizational strategies to reduce burnout and promote physician engagement. Often will focus on improving efficiency and reducing clerical burden but should focus on whichever driver dimension (Figure 1) deemed most important by members of the work unit (Figure 3).
Case Study

62 yo retired admiral with metabolic syndrome, carotid artery stenosis 100%, nicotine dependence, alcohol abuse, who refuses medication...
What is your treatment plan for 62 yo retired admiral?

A) Nutritionist consult (dietary modification)
B) Daily exercises prescription
C) Convince him to start medications
D) Dismissal for noncompliance
E) Send him to a Yoga class
“Willful indulgence in unhealthy practices that leads to disease”

Prajnaparadha = crime against wisdom
Neurogenic and Hormonal Pathways in Rage Reaction
### Table 1
Stress substance that link stress and various diseases.

<table>
<thead>
<tr>
<th>Stress substance</th>
<th>Stress-related diseases</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiovascular diseases</strong></td>
<td></td>
<td></td>
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<tr>
<td>Vasopressin</td>
<td>Hypertension</td>
<td>Szczepanska-Sadowska et al. (2010)</td>
</tr>
<tr>
<td>NE</td>
<td>Hypertension</td>
<td>Scidman and Standring (2010)</td>
</tr>
<tr>
<td>IL-6</td>
<td>Atherosclerosis</td>
<td>Nadrowski et al. (2016)</td>
</tr>
<tr>
<td>CRP</td>
<td>Atherosclerosis</td>
<td>Tsirpanis (2005), Nadrowski et al. (2016)</td>
</tr>
<tr>
<td><strong>Metabolic diseases</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GC</td>
<td>Insulin resistance.</td>
<td>Mulder et al. (2005)</td>
</tr>
<tr>
<td>NE</td>
<td>Insulin resistance, Dyslipidemia</td>
<td>Marangou et al. (1988)</td>
</tr>
<tr>
<td><strong>Psychotic and neurodegenerative disorders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL-6</td>
<td>Depression</td>
<td>Henry et al. (2008)</td>
</tr>
<tr>
<td>NLRP3 inflammosome</td>
<td>Depression</td>
<td>Zhang et al. (2014)</td>
</tr>
<tr>
<td>PGs and PAF</td>
<td>Parkinson’s disease</td>
<td>Busillo et al. (2011)</td>
</tr>
<tr>
<td><strong>Cancer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>β-adrenergic signaling</td>
<td>Pancreatic cancer, acute</td>
<td>Lamkin et al. (2012), Kim-Fuchs et al. (2014), Qin et al. (2015)</td>
</tr>
<tr>
<td></td>
<td>lymphoblastic leukemia, breast</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cancer</td>
<td></td>
</tr>
<tr>
<td>Catecholamines</td>
<td>Breast cancer</td>
<td>Lamkin et al. (2015)</td>
</tr>
</tbody>
</table>

Open in a separate window
Environmental Demands (Stressful Life Events)

Demands Appraised as Stressful (Perceived Stress)

Negative Emotional Response

Poor Health Decisions & Behaviors

Activation of SAM & HPA

Disease Related Physiological Changes (e.g., immune, cardiovascular)

Increased Risk of Disease Onset or Disease Progression

Published in final edited form as:

A Stage Model of Stress and Disease
Sheldon Cohen¹, Peter J. Gianaros², and Stephen B. Manuck²
Reducing Stress through Mindfulness and Meditation

Step One
Three Stressors

**Cataclysmic:** Tsunami...

**Objective:** Sprained ankle...

**Subjective:** Perceived mental stress...
Accelerated telomere shortening in response to life stress.

Epel ES¹, Blackburn EH, Lin J, Dhabhar FS, Adler NE, Morrow JD, Cawthon RM.

*58 healthy premenopausal mothers

*Caregivers to health child or chronically ill child

*Perceived stress (subjective) accelerates aging

*Telomere shortening approx. 9-17 years aging
Three Brain Centers

1. Stress Center
2. Pleasure Center
3. Compassion Center
Three Stressors & Treatment

Cataclysmic: LKM.

Objective: Sprained ankle, RICE therapy, etc.

Subjective: Concentration/Mindfulness/LKM.
*2000 genes assoc. with stress reduction in practitioners versus non-practitioners

*With 8 weeks of RR training 1,500 genes assoc. with stress reduction activated from baseline
“A Wandering Mind is an Unhappy Mind”

2250 adults with iPhone app asked three Q:
1) How are you feeling right now?
2) What are you doing right now?
3) What are you thinking about?
Meditation experience is associated with differences in default mode network activity and connectivity

Judson A. Brewer,\textsuperscript{a,1} Patrick D. Worhunsky,\textsuperscript{a} Jeremy R. Gray,\textsuperscript{b} Yi-Yuan Tang,\textsuperscript{c} Jochen Weber,\textsuperscript{d} and Hedy Kober\textsuperscript{a}

*fMRI brain activity in experienced meditators versus meditation-naive controls

*Concentration, Loving-Kindness, and Mindfulness deactivate mind-wandering
Three Types of Meditation

- Focused attention/concentration
- Mindfulness/choiceless awareness
- Loving-Kindness practice
Increased gray matter volume in the right angular and posterior parahippocampal gyri in loving-kindness meditators.

Leung MK¹, Chan CC, Yin J, Lee CF, So KF, Lee TM.

*3T MRI Brain of 25 men

*Compared novice versus LKM practitioners

*More gray matter volume in LKM practitioners
“Everything can be taken from a man but one thing: the last of human freedoms - to choose one's attitude in any given set of circumstances, to choose one's own way.”

V. Frankl
Loving-kindness practice

May you be happy, may you be healthy, may you be peaceful.

May I be happy, may I be healthy, may I be peaceful.

May all be happy, may all be healthy, may all be peaceful.
Discover Calm
The #1 App for Meditation and Sleep

LIMITED TIME OFFER
START FREE TRIAL

Meet Calm

Meditate
Learn the life-changing skill of meditation

Sleep
Get more restful sleep and wake up feeling refreshed

Body
Video lessons on mindful movement and gentle

Music
Exclusive music to help you focus, relax, and sleep
Nutrition For Disease Prevention and Reversal

Step Two
Precautionary Principle

“The precept that an action should not be taken if the consequences are uncertain or potentially dangerous”
Which diet has been shown to reverse CAD in randomized trial?

A) Mediterranean diet-Lyon diet
B) DASH Diet
C) Paleo Diet
D) Vegan Diet
E) Keto Diet
F) Ornish Diet
Whole-Food, Plant-Based Diet

American Cancer Society Recommendations

Feb 2015-2020 U.S. Dietary Guideline Advisory

Oct 2015 WHO processed meat is Carcinogenic

Okinawa Study, Kita Study, China Study, Seventh Day Adventist, Uganda, Blue Zones, Tsimane
Movement In Moderation is Your Fountain of Youth

Step Three
The Fountain of Youth: Exercise

https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm
The Fountain of Youth: Exercise

*Strengthens musculoskeletal system: bones, muscles, heart, brain and spinal cord.

https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm
The Fountain of Youth: Exercise

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*Lowers risk of premature death, CAD, CVA, HTN, DM2, CAs.

https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm
The Fountain of Youth: Exercise

*Strengthens musculoskeletal system: bones, muscles, heart, brain and spinal cord.

*Lowers risk of premature death, CAD, CVA, HTN, DM2, CAs.

*Improves sleep, well being, serotonin, & hormones, HDL, LDL, TG, TC, weight loss.

https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm
Summary

STEP 1: Formal and informal meditation practice for subjective mental stress.

STEP 2: Nutritional intervention for chronic disease: Predominately WFPD

STEP 3: Exercise Rx is 30-60 min of aerobic exercise daily, resistance 2x/wk, avoid sitting.
My Well-Being Index Results

You can take the assessment again on November 3rd 2018

Your Well-Being Index Score Is:

Excellent

View on Scale

Better than 80% of US Physicians

Meaning in Work

Based on scores in US physicians

Average

Low

High

Very Low

Very High

Likelihood of Burnout

Average risk among US physicians

60%

40%

20%

0%

80%

100%

Higher risk

Lower risk

Severe Fatigue

Average risk among US physicians

60%

40%

20%

0%

80%

100%

Higher risk

Lower risk

Work-Life Integration

Based on scores in U.S. physicians

Poor

Good

Excellent

Very Poor

Risk for Medical Error

Average risk among US physicians

30%

20%

10%

0%

40%

Less safe

More safe

Suicidal Ideation

Average risk among US physicians

20%

10%

0%

30%

Higher risk

Lower risk
Resources for My Well-Being

These resource categories have been selected based on your Well-Being Index score.

- Career & Professional Development
- Relationship & Work-Life Balance
- Health Behavior
- Stress & Resiliency
Resources

Well Being Index  https://www.mededwebs.com/well-being-index

Provider Wellness Program 24-Hour Confidential Support Line 541-345-2800

National Suicide Prevention Lifeline 1-800-273-8255

- https://oregonwellnessprogram.org
- Lane County Medical Society Physician Wellness Program
- Oregon Attorney Assistance Program (available for physicians)
- The Foundation for Medical Excellence