Physician and Scientist Well-being: What You Should Know

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Chief Wellness Officer, Stanford Medicine
Associate Dean, Stanford School of Medicine
Director, WellMD Center
Dissatisfaction with Medical Practice

Confronting Depression and Suicide in Physicians

A Consensus State Stress and Morale of Academic Biomedical Scientists

Biomedical burnout in American surgeons

The Ravelled Sleeve of Care

Changes in Career Satisfaction Among Primary Care and Specialties, 1997-2001

Mental health of hospital consultants: the effects of stress satisfaction at work
What is Burnout?

Burnout is a syndrome of depersonalization, emotional exhaustion, and low personal accomplishment leading to decreased effectiveness at work.
Maslach Burnout Inventory

- Developed 1980, validation over last 30 years.
- 22 item survey evaluates the 3 domains of burnout.
- Respondents rate frequency on 7 point Likert scale.
- 3 Sub-Scales: Depersonalization, Emotional Exhaustion and Low Personal Accomplishment
- Normative national samples of like professionals
Burnout by Specialty

Emergency Medicine
General Internal Medicine
Neurology
Family Medicine
Otolaryngology
Orthopedic Surgery
Anesthesiology
OB/GYN
Radiology
Physical medicine/Rehab
Average all physicians
General Surgery
Internal Medicine Subspecialty
Ophthalmology
General Surgery Sub-specialty
Urology
Psychiatry
Neurosurgery
Pediatric Subspecialty
Other
Radiation Oncology
Pathology
General Pediatrics
Dermatology
Preventative/Occupational Medicine

N=7288

Shanafelt, Archives Internal Med 2012
Biomedical Scientists?

- No good national data

- Single center experience suggests a growing problem related to:
  - Decreased funding
  - Shift from academic culture to more corporate culture
    - Productivity targets
    - Commercialization
    - Top-down decision making
  - Increased inefficiency related to clerical work
    - Reports
    - Paperwork
    - Personnel evaluations
    - Business meetings

Holleman Acad Med 90:562; Holleman Nature 500:613
Employed Physicians vs. Employed U.S. Population

<table>
<thead>
<tr>
<th></th>
<th>Physicians n=6179</th>
<th>Population n=3442</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hrs/Wk (median)</td>
<td>50</td>
<td>40</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Burnout*</td>
<td>38%</td>
<td>28%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Dissatisfied WLB</td>
<td>40%</td>
<td>23%</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

* As assessed using the single-item measures for emotional exhaustion and depersonalization adapted from the full MBI. Area under the ROC curve for the EE and DP single items relative to that of their respective full MBI domain score in previous studies were 0.94 and 0.93
Pooled Multi-variate Analysis
Physicians and Population

• Adjusting for:
  • Age, gender, relationship status, hours worked/week, education

• Factors associated burnout (all $p<0.0001$):
  • Increasing age (OR: 0.986 each year older)
  • Married (OR vs. single 0.71)
  • Hours worked (OR=1.017 each hour)

• Education\(^1\):
  • Bachelors degree: OR=0.8
  • Masters degree: OR=0.71
  • Doctorate or non-MD/DO professional degree: OR=0.6
  • MD/DO: OR=1.36

\(^1\) reference group high school graduate

Shanafelt, Archives Internal Med 2012
Physicians & Population

Burnout

Satisfaction Work-life Balance

Shanafelt, Mayo Clinic Proceedings 90:1600
When does burnout start?

- Matriculating medical students better mental health than college graduates pursuing other fields
  - Lower burnout
  - Less depression
  - Higher QOL (overall, mental, emotional, physical)

- Pattern reversed by 2nd year medical school

- Burnout crescendos during residency

- In practicing physicians, burnout and dissatisfaction WLB peaks mid-career (10-19 years in practice)

Brazeau Academic Med 89:1520; Dyrbye Mayo Clinic Proc 88:1358
Stanford
Stanford Physician Well-being Survey

- 2013: 51% Burnout (8-item), 32% Professional Fulfillment (4 item)
- 2016: 42% Burnout (8-item), 37% Professional Fulfillment (4 item)
By Line...

**Burnout**

- UTL: 28%
- MCL: 41%
- CE: 43%

**Professional Fulfillment**

- UTL: 56%
- MCL: 45%
- CE: 39%
Why Should We Care?
Professional & Personal Consequences

- Broken relationships
- Decreased quality of care & Medical errors
- Alcohol & substance use
- Decreased patient satisfaction
- Depression
- Decreased productivity & professional effort
- Suicide
- Turner

Shanafelt, Mayo Clinic Proceedings 91:422
Cutting Professional Effort

- Assess physician burnout and satisfaction Mayo Clinic longitudinally 2011 and 2013 (N>2500)

- Independently monitor changes FTE payroll records

- Burnout and satisfaction 2011 predicted reduction in FTE over next 24 months
  - On MV analysis, each 1 point increase burnout OR=1.43 (p<0.001)
  - On MV analysis, each 1 point decrease satisfaction OR=1.34 (p=0.03)

Shanafelt, Mayo Clinic Proceedings 91:422
The human/personal cost of burnout

- Loss of idealism and commitment
- Loss of sense work is meaningful (cynicism)
- Loss of direction/purpose
- Personal life “spill-over”
Depression Among Physicians

- **Prevalence = general population**
  - 12% lifetime – male physicians
  - 19.5% lifetime – females physicians

- **Higher rates of suicide in physicians**
  - RR 1.1 - 3.4 in male physicians
  - RR 2.5 - 5.7 in females physicians

- **Suicide a disproportionate cause of mortality in physicians relative other professionals**

Proportionate Mortality Ratio:
Male Physicians vs Male Professionals

Suicidal Ideation Among Surgeons
n=7905

• 501 (6.4%) U.S. surgeons thought of suicide last 12 months

• 26% surgeons suicidal ideation sought psychiatric help

• 60% SI reluctant to seek help for treatment of depression due repercussions medical license

Shanafelt, Archives Surgery 146:54 (2011)
Factors Associated with Suicidal Ideation on Multi-variable Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>OR</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Depression screen</td>
<td>7.0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Burnout</td>
<td>1.9</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Perceived error last 3 mo</td>
<td>1.9</td>
<td>&lt;0.001</td>
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<tr>
<td><strong>Youngest child age 19-22</strong></td>
<td>1.6</td>
<td>0.004</td>
</tr>
<tr>
<td>Incentive pay only</td>
<td>0.8</td>
<td>0.035</td>
</tr>
<tr>
<td>Married</td>
<td>0.7</td>
<td>0.002</td>
</tr>
<tr>
<td>Practice academic medical center</td>
<td>0.6</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Shanafelt, Archives Surgery 146:54 (2011)
What are the Causes of Burnout?
Causes of Physician Distress

- ↑ clinical demands
- Decreased autonomy
- ↑ government/reimbursement issues
- Decreased time with patients
- Difficulty balancing personal & professional lives
- ↑ clerical work related to EHR
- Isolation
Causes of Scientist Distress

- ↑ competition for funding
- Pressure to be first
- Livelihood of others dependent on you
- Job security
- Managing interpersonal conflict in your lab/team
- Difficulty balancing personal & professional lives
- Isolation

Holleman Acad Med 90:562; Holleman Nature 500:613
Are physicians at inherent risk?
The “Physician Personality”

TRIAD OF COMPULSIVENESS

Doubt

Guilt  Exaggerated Sense Responsibility

Gabbard JAMA 254:2926
The "Physician Personality"

**Adaptive**
- Diagnostic rigor
- Thoroughness
- Commitment to patients
- Desire to stay current
- Recognize responsibility of patients trust

**Maladaptive**
- Difficulty relaxing
- Problem allocating time for family
- Sense responsibility beyond what you control
- Sense "not doing enough"
- Difficulty setting limits
- Confusion of selfishness vs. healthy self-interest
- Difficulty taking time off

Gabbard JAMA 254:2926
Personality Traits of Physicians

- Self described traits/beliefs

Lemare, BMC Health Services Res 14:616
## Personality Traits of Physicians

- Self described traits/beliefs

<table>
<thead>
<tr>
<th>Trait</th>
<th>Percentage</th>
<th>Self-Esteem</th>
<th>Functional</th>
<th>Emotional</th>
<th>Personal</th>
<th>Professional</th>
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</thead>
<tbody>
<tr>
<td>Workaholic</td>
<td>55%</td>
<td>↑↑↑</td>
<td></td>
<td>↑↑</td>
<td></td>
<td></td>
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<tr>
<td>Type A</td>
<td>72%</td>
<td>↑↑↑</td>
<td></td>
<td>↑↑</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control freak</td>
<td>40%</td>
<td>↑↑↑</td>
<td>↓↓</td>
<td>↑↑</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lemare, BMC Health Services Res 14:616
Coping... The Myths

- Things will get better when....
  - I finish residency
  - I establish myself in the practice
  - I get my funding in place
  - I retire....

- You can have it all...
  - Fame, fortune, family

- “XYZ is the best use of your talent”
What is Well-being?
Well-being Literature Search

<table>
<thead>
<tr>
<th>Topic</th>
<th>Articles</th>
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<tbody>
<tr>
<td>Anger</td>
<td>8072</td>
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<tr>
<td>Anxiety</td>
<td>57,800</td>
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<tr>
<td>Depression</td>
<td>70,856</td>
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<tr>
<td>Life satisfaction</td>
<td>5700</td>
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<tr>
<td>Happiness</td>
<td>2958</td>
</tr>
<tr>
<td>Joy</td>
<td>851</td>
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</tbody>
</table>
The Science of Happiness
Components of Happiness

• Pleasure (positive emotions)
  – Eating ice cream; having a massage

• Engagement (being absorbed)
  – Training marathon

• Meaning (serving something larger than self)
  – Knowledge, goodness, family, community, justice

Components of Happiness

- Pleasure → the pleasant life
- Engagement → the good life
- Meaning → the meaningful life

The full life

Theory: Flow

- Psychologic Selection: Individuals preferentially cultivate a limited subset of activities, values, and personal interests.

- Optimal selection creates “Flow”:
  - Deep concentration
  - Intrinsic motivation
  - High challenges - *matched* by adequate skills
Designing optimal experiences

- Flow: peak experiences, states of absolute absorption
From theory to practice...
Do Physicians Accurately Calibrate Their Distress/Well-being?

- 1150 surgeons surveyed 2013
- Subjective assessment well-being poor
- Completed physician well-being index

- After objective individualized feedback 47% intended to make specific changes to:
  - Reduce burnout
  - Reduce fatigue
  - Increase work-life balance
  - Increase career satisfaction

- Surgeons greater distress more likely plan changes in each dimension

Shanafelt, Annals Surgery 259:82
Drivers Burnout and Satisfaction

- Workload (optimize)
- Efficiency (enhance)
- Control/flexibility (promote)
- Work-life integration (facilitate)
- Meaning in work (cultivate)
- Values alignment
- Community/collegiality

Shanafelt, Mayo Clinic Proceedings 91:422
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Bohman, NEJM Catalyst
What can I Do for Myself?

- **Identify Values**
  - What matters to you most?
  - Integrate personal and professional life
  - Debunk myth of delayed gratification
Reflecting on Personal Values...

- What is my greatest priority in life? Have I been living life in a way that demonstrates this?

- Do I have adequate balance between my personal and professional life?

- What would I like my life to be like in 10 years?

- How much professional achievement am I willing to sacrifice to accomplish my personal life goals? (be specific)

Shanafelt JCO 24:4020
Reflection On Professional Values...

- Why did I choose to become a physician/scientist?
- Why did I choose my specialty/field?
- What motivates me professionally?
- Do I like least about my work?
- By the end of my career, what 3 things do I hope to have accomplished? (be specific)

Shanafelt JCO 24:4020
Common Themes for Physicians and Medical Scientists

- Being a:
  - Healer
  - Expert
  - Teacher

- Building successful practice

- Making discoveries
Integrating Values

- Your time, talents, energy are limited resources
- Determine which personal & professional goals most important to you
- Be honest where goals may be incompatible
- Determine how to integrate based on values
- There is no “right” formula...
What can I Do for Myself?

- Identify Values
  - What matters to you most?
  - Balance personal professional life
  - Debunk myth of delayed gratification

- Optimize meaning in work
  - Flow
  - Choose/limit type of practice
Career “Fit”
Shanafelt, Archives IM 169:990 (2009)

- 465 Internal medicine physicians Mayo Clinic
- Most personally meaningful aspect of work:
  - Spending <20% effort in most meaningful activity strongly associated with burnout:
    - (53.8% vs. 29.9%; p<0.001)
- Persist MV analysis adjust other factors (OR 2.75; p=0.001)
What is your 20%?

- Can you articulate it?
- Be granular
- I like taking care of
  - patients
  - patients specific disease
  - patients certain demographic
  - mentorship
  - teaching (which tasks)
  - leadership (which tasks)
  - clinical trials
  - discovery
“Do first things first, and second things not at all.”

- Peter Drucker
What can I Do for Myself?

- **Identify Values**
  - Debunk myth of delayed gratification
  - What matters to you most
  - Balance personal professional life

- **Optimize meaning in work**
  - Flow
  - Choose/limit type of practice

- **Nurture Personal Wellness Activities**
  - Relationships (connect w/ colleagues; personal)
  - Religious/spiritual practice
  - Personal Interests (hobbies)
  - Self-care (exercise, sleep, regular medical care)
Do Such Strategies Work?
Burnout

- Hours worked
- Nights on call
- Meaning work
- Philosophy balance
- Positive outlook
- Focus what’s important
- Vacations

Neutral

Well-being

- Hours worked
- Nights on call
- Meaning work
- Philosophy balance
- Positive outlook
- Focus what’s important
- Vacations

Shanafelt Archives Surgery 255:625
Burnout → Neutral → Well-being

- Saw primary care <12 mo
- Compliant CDC aerobic exercise
- Talk spouse/family/friends
- Protect time away spouse/family/friends
- Recreation/hobbies
- Less likely mentality delayed gratification

Shanafelt Archives Surgery 255:625
Enhancing Self-Awareness

• Mindfulness
  – intentional awareness to the moment (being present)
  – conscious attention to thoughts, emotions, biases, values
  – moment-to-moment self-monitoring

• Narrative medicine
  – A focus on experience of illness not just biologic processes
  – Patient story at center encounter
  – Recognizing your role in the story
  – Validate patient
  – Self-reflection and meaning for physician

Epstein JAMA 282:833; Charon JAMA 286:1897
Physician Well Being Index®

Well Being Index for 12-11-2014

Below you will find individualized feedback based on the answers you provided:

Your well-being index score indicates your well-being is: Average

Your score indicates an average level of well-being compared to other physicians. An overview of strategies to promote well-being can be found under the resources tab and may provide you with ideas to enhance your well-being.

The dashboards below provide an approximation of how your score relates to that of other US physicians and indicate some of the potential risks associated with your score at the population level.

Resources for your well-being

About the Physician and Medical Student Well-Being Index

Additional details can be found in the following peer-reviewed publications:

- Utility of a brief screening tool to identify physicians in distress
- AI
- Inf
- ch
- be
- AI
- Inf
- st
- Id
- Ch
- ps
- Il

Free app:

Text: WBIAPP
To: 507-316-6602
Fostering Community and Support From Colleagues

• Randomized controlled trial Mayo Clinic physicians

  – Arm A (Group): n=37
    • meet 60 minutes every other wk for 9 months
    • Facilitated curriculum small group colleagues
    • Cognitive knowledge, shared experience, solutions

  – Arm B (Admin Time): n=37
    • Receive 60 minutes every other wk for 9 months
    • professional/administrative tasks (~1% FTE)

  - Non-trial: n=476

• Measure meaning in work, satisfaction, well-being

West JAMA Internal Medicine 174:527
Outcomes

Burnout

Meaning in

Baseline 1 year

Baseline 1 year

p=0.002

p=0.036

Current Practice

Current Practice

West JAMA Internal Medicine 174:527
Summary

- Distress common among physicians
  - Multiple types

- Distress influences both physician & their practice

- Variety of factors contribute to distress and QOL
  - Tension personal/professional life
  - Work related stressors
  - Errors
  - Mentality delayed gratification

- Well-being is more than the absence of distress

- There are strategies you can use to promote wellness
“Self-love, my liege, is not so vile a sin as self-neglect.”

- Henry V, Act 2, scene 4