“That physician will hardly be thought very careful of the health of his patients if he neglects his own.”

- Galen 130-200 AD

Reducing Burnout & Promoting Engagement: Individual and Organizational Approaches To Physician Well-being

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Chief Wellness Officer, Stanford Medicine
Associate Dean, Stanford School of Medicine
Director, WellMD Center

Disclosures

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Learning objectives

I. Discuss what is known regarding satisfaction and burnout among physicians

II. Recognize the personal and professional consequences of physician burnout

III. Identify organizational approaches to promote well-being

“Houston, we have a problem!”
Dissatisfaction with Medical Practice

Confronting Depression and Suicide in Physicians

A Consensus Statement

DIFFERENCES BETWEEN RESIDENTS AND SPECIALISTS

Burnout among American surgeons

Changes in Career Satisfaction Among Primary Care and Specialist Physicians

1997-2001

Mental health of hospital consultants: the effects of stress and satisfaction at work

What is Burnout?

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

Burnout by Specialty 2011

Employed Physicians vs. Employed U.S. Population

Shanafelt, JAMA Int Med 172:1137

Pooled Multi-variant Analysis

Physicians and Population

Adjusting for:

- Age, gender, relationship status, hours worked/week, education

Factors associated with burnout (all p<0.0001):

- Increasing age (OR: 0.866 each year older)
- Married (OR vs. single: 0.72)
- Hours worked (OR: 1.017 each hour)

Education:

- Bachelor's degree: OR=0.9
- Master's degree: OR=0.71
- Doctorate or non-MD/DO professional degree: OR=0.6
- MD/DO: OR=1.35

Mental Health of Hospital Consultants: The Effects of Stress and Satisfaction at Work

Shanafelt, JAMA Int Med 172:1137

Physicians & Population

Burnout

Satisfaction Work-life Balance

Shanafelt, Mayo Clinic Proceedings 90:1600

Page 2
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 99:1530; Dyrbey Mayo Clinic Proc 88:1358

Why Should We Care?

Professional & Personal Consequences

Errors Among U.S. Surgeons
- Cross-sectional survey, ACS members
- "Are you concerned you have made any major medical errors in the last 3 months?"
- Identify events internalized by surgeon as major error
- Self-reported errors high correlation events medical record²

² Annals of Surgery 251:995; JGH 18:899

Self-reported Major Medical Errors Among U.S. Surgeons (n=7905)
- 9% of Surgeons Report Major Error last 3 months

<table>
<thead>
<tr>
<th></th>
<th>OR Reporting Error</th>
<th>p</th>
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<tbody>
<tr>
<td>Each 1 point increase EE*</td>
<td>1.05</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Each 1 point increase DP*</td>
<td>1.11</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Each 1 point decrease PA*</td>
<td>1.63</td>
<td>&lt;0.0001</td>
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</tbody>
</table>

*EE 0-54; DP 0-30; PA 0-48

Shanafelt, Annals of Surgery 251:995

Do errors lead to distress?
OR
Does distress lead to errors?
**JAMA**

**Association of Perceived Moral Distress With Resident Distress and Burnout: A Prospective Longitudinal Study**

- Lok N. Lee, MD, PhD
- Marc W. Hockenga, BS
- Paul T. Newton, MD
- Lisa A. Neeley, MD
- Sheryl A. Long, MD
- Teresa K. Allen, MD
- Thomas M. Balazs, MD
- Earl M. Sanders, MD

**JAMA 302:1294 (2009)**

**JAMA 296:1071 (2006)**

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**Burnout and Mortality Ratios**

- Evaluated burnout 54 ICU's in Switzerland
  - Physicians (n=243)
  - Nurses (n=1130)
- Determined mean burnout score each unit and evaluated correlation standardized mortality ratios
- Multi-variable analysis adjusting for work-load experience and other factors
- EE at unit level correlated with standardized mortality ratio (P<0.39, P<0.03)
- Burnout problem for entire team and patients cared for

Welp, Frontiers Psychology 5:1573

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**Cutting Professional Effort**

- Assess physician burnout and satisfaction Mayo Clinic longitudinally 2011 and 2013 (N>2500)
- Independently monitor changes FTEs payroll records
- Burnout and satisfaction 2011 predicted reduction in FTE 2013 and 2014
  - On BW analysis, each 1 point increase burnout OR=1.26 (P<0.05)
  - On BW analysis, each 1 point decrease satisfaction OR=1.67 (P<0.003)
- Changes in burnout and satisfaction 2011 to 2013 predict reduction FTE following 12 months
  - On BW analysis, each 1 point increase burnout OR=1.26 (P<0.05)
  - On BW analysis, each 1 point decrease satisfaction OR=1.67 (P<0.003)

Sharanfelt, Mayo Clinic Proceedings 91:422

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**Triple Aim...Quadruple Aim?**

1. Enhancing patient experience
2. Improving population health
3. Reducing cost of care


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**Depression Among Physicians**

- Prevalence = general population
  - 12% lifetime – male physicians
  - 19.5% lifetime – females physicians
- Higher rates of suicide in physicians
  - RR 2.5-7.5 in male physicians
  - RR 2.5-7.5 in female physicians
- Suicide is a disproportionately high cause of mortality in physicians relative to other professionals


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**Proportionate Mortality Ratio:**

Male Physicians vs Male Professionals

- Causes
- Suicide
- Accidents
- Cardiovascular Disease
- Cerebrovascular Disease
- Cancer
- Heart Disease
- N/V/O
- Injury
- Lung Disease
- Chronic Obstructive Pulmonary Disease
- Pneumonia/Influenza

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
- 50% still reluctant to seek help for treatment of depression due repercussions of medical license

Shanafelt, Archives Surgery 146:54 (2011)

Factors Associated with Suicidal Ideation on Multi-variable Analysis

<table>
<thead>
<tr>
<th></th>
<th>OR</th>
<th>p</th>
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</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>1.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Youngest child age 18-22</td>
<td>1.5</td>
<td>0.004</td>
</tr>
<tr>
<td>Inadequate pay only</td>
<td>0.6</td>
<td>0.033</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)

Causes of Distress Medical Providers

- ↑ clinical demands
- Decreased autonomy
- ↑ government/reimbursement issues
- Decreased time with patients
- Difficulty balancing personal & professional lives
- Inefficiency and intrusion of EHR
- Isolation

Are physicians at Inherent risk?
The "Physician Personality"

TRIAD OF COMPULSIVENESS

Doubt

Guilt

Exaggerated
Sense
Responsibility

Gabbard JAMA 254:2026

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 selflessness vs. healthy self-interest
- Difficulty taking time off

Gabbard JAMA 254:2026
The EHR....
- Recruited 57 physicians
  - 16 practices
  - 4 specialties (internal med, family med, cardiology, orthopedics)
  - 4 geographic regions
- Time motion study
  - 430 hours of direct observation
- Work day time allocation
  - 33% direct clinical time
  - 1% EHR and clerical tasks
  - 19% other (meetings, business work, personal)

Sinsky, Annals Internal Medicine 165:753

The EHR....
- Of time in exam room
  - 53% on history, exam, education patient
  - 37% EHR and desk work
  - 10% admin
- During work day:
  - 2 hrs EHR/Clerical work for every 1 hr clinical work
- On average, 1-2 additional hours on EHR and clerical work during personal time each night

Sinsky, Annals Internal Medicine 165:753
Shanafelt, Mayo Clinic Proceedings 91:836

Staffing and Burnout in Primary Care
- Survey MD, NP/IPA, RN, LPN, clerical assistants (n=4010)
- Assessed
  - Panel size (within or overcapacity)
  - Panel co-morbidity
  - After hours work (M-F, weekend)
  - Team currently at full staff (1 provider, 1 RN, 1 LPN, 1 CA)
  - Turnover on team last 12 mo
- Symptoms of burnout
  - MD: 45%
  - RN: 42%
  - LPN: 32%
  - CA: 30%

Hellrich, JGIM 32:760

Staffing and Burnout in Primary Care
- Largest differences burnout
  - Fully staffed vs. not
  - Panel overcapacity vs. not
  - Most true for all occupations

Rapidly Changing Environment

What is Well-being?
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
  - Intrinsuc motivation
  - High challenges - matched by adequate skills


Designing optimal experiences

- Flow: peak experiences, states of absolute absorption

Challenges

Anxiety

Flow

Boredom

Skills

Do Physicians Accurately Calibrate Their Distress/Well-being?

- 1150 surgeons surveyed 2013
- Subjective assessment well-being poor
- Complete physical well-being index
- No relationship between the two

From theory to practice...
Your Well-being over time

Text: EZWBI
To: 797979

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

Shanafelt J Clin Onc 24:4020; Lieff Academic Medicine 84:1383

Professional Values...
- Why did I choose to become a physician?
- Why did I choose to specialize in xxxxx?
- 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 J Clin Onc 24:4020; Lieff Academic Medicine 84:1383

Common Themes
- Being a:
  - Healer
  - Expert
  - Teacher
- Building successful practice
- Making discoveries

Horowitz Annals Int Med 138:772; Schijve Peer2 4:1783

Integrating Values
- Recognize that 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...
How Well Do Physicians Integrate Personal & Professional Lives?

- Residents report “Survival Attitude” - life on hold until the completion of residency
- 37% physicians report “Looking forward to retirement” is an essential “wellness promotion strategy”
- Many physicians may maintain strategy of delayed gratification throughout their entire career

Shelorlet, J Sup Oncol. 2:157 (2005)

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
  - Chose limiting type of practice
  - Environment

Career “Fit”

- 465 internal medicine physicians Mayo Clinic
- Most personally meaningful aspect of work:
  - Spending 20% effort in most meaningful activity strongly associated with burnout:
    - OR 2.75; p=0.002
  - 80% of respondents
  - 20% of respondents

What is your 20%?

- Can you articulate it?
- Be granular
- I like taking care of
  - patients
  - patients’ specific disease
  - patients’ specific demographic
  - mentorship
  - teaching (which task)
  - leadership (which task)
  - clinical trials

“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
  - Balance personal/professional life
- Optimize meaning in work
  - Flow
  - Choose limiting type of practice
  - Environment
- Nurture Personal Wellness Activities
  - Relationships (connect with colleagues, personal)
  - Religious/spiritual practice
  - Personal interests (hobbies)
  - Self-care (exercise, sleep, regular medical care)
Power of Leadership

- Behaviors physician supervisor large impact burnout & satisfaction individual physicians
  - Each 1 point leader score -4% burnout (p=0.001)
  - Each 1 point leader score -8% satisfaction (p=0.001)
- Leadership qualities physician supervisor impacts burnout & satisfaction work-unit level
  - 11% variation burnout between units correlated leader score
  - 47% variation satisfaction between units correlated leader score
- Better training and support for leaders needed

Shanafelt, Mayo Clinic Proceedings 90:432

What Were Key Leadership Behaviors?

- Four key behaviors:
  - Keep informed
  - Ask opinion on how to improve the work unit
  - Facilitates my career development
  - Recognizes me for job well done
- How demonstrate?
  - Annual review
  - Walk rounds
  - Department meeting structure/format

1Shanafelt Am J Med Qual 32:563; 2Frankel Health Serv Res 43:2050; 3Thomas BAC, Health Serv Res 5:28

Leadership WalkRoundS

- Leadership WalkRoundS:
  - Leaders to build relationship frontline caregivers
  - Demonstrate patient safety a priority for leaders
  - Increase awareness safety issues leaders/staff
  - Obtain and act on information from staff
- WalkRoundS associated with improved safety climate
- Feedback about actions taken after leadership walk around trend toward lower burnout (p=0.07)
- Caution: randomized trial 56 hospitals suggests can have negative impact if problems not acted on

1Frankel Health Serv Res 43:2050; 2Thunhorst BMC Health Serv Res 5:28
3Sexton BMJ Qual Saf 13:814; 4Tucker POM 24:253

Voice: Collaborative Action Planning

- Assessment to identify high opportunity work-units
- Use drivers as framework for discussion
- Listen
  - Which driver dimension currently > issue our unit?
  - What, under our control, could we change to improve?
- Identify, develop, operationalize 1 change
- Assess
  - Did it work?
- Repeat
  - Tangible and incremental improvements

Swanson, Journal Healthcare Management 61:105

Lessons Learned

- When you've seen one unit you've seen one unit
  - "The system can ask the question but the answer is local"
- Own the part you own
- It works
  - All units decrease burnout (median absolute decrease 11%)
  - 70% units improve satisfaction (median absolute improve 8%)
- Breeds engagement
  - Physicians and leaders working together constructively
  - Change is possible
  - Physician as partner rather than victim
  - Empowered
  - "It was our idea"

Swanson, Journal Healthcare Management 61:105
Productivity-Based Pay

- How you are compensated influences risk of burnout.

<table>
<thead>
<tr>
<th>U.S. Oncologists (n=1015)</th>
<th>Burnout</th>
<th>P</th>
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<tbody>
<tr>
<td>Salary only</td>
<td>41%</td>
<td></td>
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<tr>
<td>Salary plus productivity bonus</td>
<td>47%</td>
<td>P=0.01</td>
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<tr>
<td>Pure productivity based pay</td>
<td>54%</td>
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</table>

- U.S. surgeons (n=7905) productivity based pay
  BO 37% multi-variate analysis

Shanafelt, JCO 32:678; Shanafelt, Ann Surg 250:463

Fostering Community and Support From Colleagues

- Randomized controlled trial Mayo Clinic physicians
  - Arm A (Group): n=37
    - mean 60 minutes every other wk for 6 months.
    - Facilitated curriculum; small group; colleagues.
    - Cognitive knowledge, shared experience, solutions.
  - Arm B (Advising): n=37
    - Receive 60 minutes every other wk for 6 months.
    - Professional administrative tasks (15% FTE)
  - Non-trial: n=476

- Measure meaning in work, satisfaction, well-being

West JAMA Internal Medicine 174:527
2011 Mayo Clinic Intervention Trial

DOM faculty
N=550

Volunteers
N=74

Intervention
N=37

Control
N=37

Non-volunteers
N=476

Current Practice

Outcomes

Burnout

Meaning in work

p=0.002

p<0.005

Iteration 2

- Sign up group 6-7 colleagues
- Dinner together every 2 weeks
- Sent 5 questions
  - Choose 3 to drop for 15 minutes
  - Avoid devolving to gripe session
  - Engage topic related physicianhood not discussed day to day
- Enjoy each other’s company
- Similar benefits burnout and meaning
  - Now standard benefit physicians and scientists

Does it work?

Systematic Review:
Interventions to reduce burnout

- Systematic review identified 37 studies
  - 37 cohort
  - 15 randomized controlled trials
- Interventions work
  - Indicated 5 key points
  - We

Physician Burnout:
Mayo Clinic Experience

<table>
<thead>
<tr>
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<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>Emotional exhaustion Mayo Clinic</td>
<td>79%</td>
<td>99%</td>
<td>87%</td>
<td>86%</td>
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<tr>
<td>Depersonalization Mayo Clinic</td>
<td>8%</td>
<td>15%</td>
<td>12%</td>
<td>12%</td>
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<tr>
<td>Overall burnout Mayo Clinic</td>
<td>24%</td>
<td>40%</td>
<td>33%</td>
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<tr>
<td>Emotional exhaustion U.S. Physicians</td>
<td>32%</td>
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<td>Depersonalization U.S. Physicians</td>
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<td>33%</td>
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<tr>
<td>Burnout U.S. Physicians</td>
<td>38%</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
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</tbody>
</table>

Shanafelt, Mayo Clin Proc. 92:129

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"Self-love, my liege, is not so vile a sin as self-neglect."

- Henry V, Act 2, scene 4

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