

The High Cost of Burnout in Healthcare Professionals:
Organizational Approaches
To Improve Well-being

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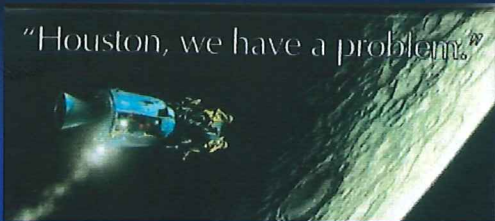


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Tait Shanafelt, MD

"Houston, we have a problem."



Dissatisfaction with Medical Practice
Changes in Care Stress and burnout among critical care and medical surgical nurses:
Prim: Burnout in internal medicine physicians:
1997 Differences between residents and specialists
Recognising and combating compassion fatigue in nursing.
Burnout among intensive care nurses.
Moral Distress in Physicians and Nurses care. and burnout in
Burno **Confronting Depression and Suicide**
in Physicians
A Consensus Statement

What is Burnout?

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

Burnout Among Nurses

- 10,184 hospital based nurses in Pennsylvania
- 43% burned out
- Patient - nurse staffing ratios strongly related to burnout and job satisfaction
- Approximately 23% increased risk burnout for each 1 additional patient per nurse
- Intent to leave current job next 12 months:
 - Burned out nurses = 43%
 - Nurses without burnout = 11%

Aiken JAMA 288:1987 (2002)

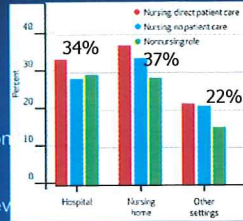
Burnout Among Nurses

- 68,724 nurses California, Pennsylvania, Florida, New Jersey in 2006-2007

- Used EE subscale of MBI

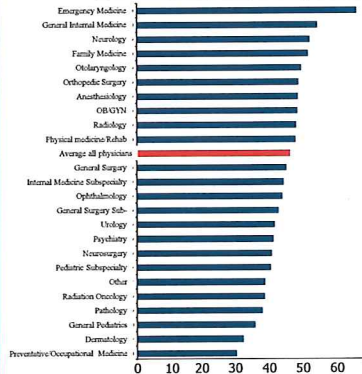
- 37% hospital and 47% nursing home based nurses report workload caused them miss important changes pt condition

- Nurse burnout correlated with patient satisfaction hospital level



McHugh Health Affairs 30:202

Burnout by Specialty 2011



N=7288

Shanafelt, JAMA Int Med 172:1137

Employed Physicians vs. Employed U.S. Population

	Physicians n=6179	Population n=3442	p
Hrs/Wk (median)	50	40	<0.001
Burnout*	38%	28%	<0.001
Dissatisfied WLI	40%	23%	<0.001

Shanafelt, JAMA Int Med 172:1137

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)
- Education¹:
 - 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

¹reference group high school graduate

Shanafelt, JAMA Int Med 172:1137

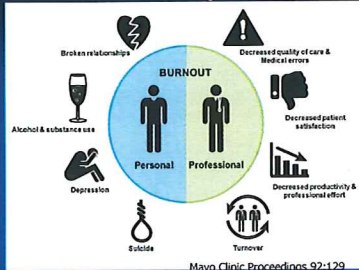
When does burnout start?

- 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

Why Should We Care?

Professional & Personal Consequences

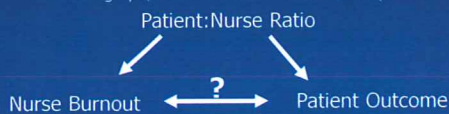


¹JAMA 296:1071. ²JAMA 304:1173. ³JAMA 302:1294. ⁴Annals IM 136:358. ⁵Annals Surg 251:995. ⁶JAMA 306:952. ⁷Health Psych 12:93. ⁸JACS 212:42. ⁹Annals IM 149:334. ¹⁰Arch Surg 146:54

Mayo Clinic Proceedings 92:129

Burnout Among Nurses

- Patient - nurse staffing ratios strongly related to not only burnout but patient mortality
- Patients at ~7% increased risk death for each additional patient per nurse
 - Increasing 2 pts/nurse = ~2 additional deaths/1000 patients




Aiken JAMA 288:1987 (2002)

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 ($B=0.39$; $p=0.03$)
- Burnout problem for entire team and patients cared for


Welp. Frontiers Psychology 5:1573




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)
- Change burnout and satisfaction 2011 to 2013 predict reduction FTE following 12 months
 - On MV analysis, each 1 point increase burnout OR=1.28 (p=0.01)
 - On MV analysis, each 1 point decrease satisfaction OR=1.67 (p=0.003)

Shanafelt, Mayo Clinic Proceedings 91:422



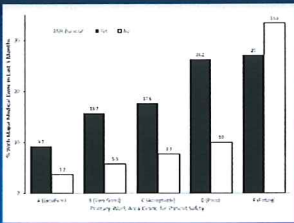
Turnover and Patient Complaints



- Measured burnout 1145 physicians Cleveland Clinic and assessed:
 - Patient satisfaction CAHPS
 - Unsolicited patient complaints
 - Actual turnover/departures ensuing years
- Risk factors for burnout
 - Higher % time devoted to clinical work
 - Higher patient satisfaction with communication
- Outcomes:
 - Turnover double among physicians with emotional exhaustion
 - Unsolicited patient complaints double those depersonalization

Windover, JAMA Intern Med 178:856

Interactions Individual and Environment on Quality/Safety



Tawfik, Mayo Clinic Proceedings In Press 2018

What are the Causes of Burnout?

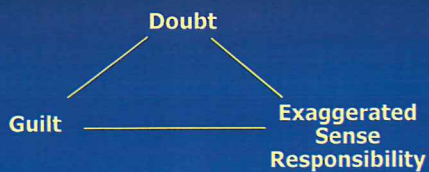
Causes of Distress Medical Providers

- ↑ 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



Gabbard JAMA 254:2926

The "Physician Personality"

Adaptive

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

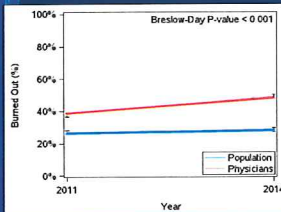
Maladaptive

- 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

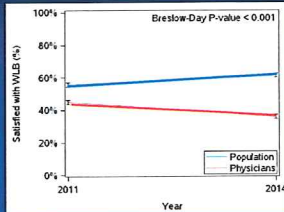
Gabbard JAMA 254:2926

Physicians & Population

Burnout



Satisfaction Work-life Balance



Shanafelt, Mayo Clinic Proceedings 90:1600

The EHR....

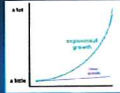
- Work day time allocation
 - 33% direct clinical time
 - 49% EHR and clerical tasks
 - 19% other (meetings, business work, personal)
- Of time in exam room
 - 53% on history, exam, education patient
 - 37% EHR and desk work
 - 9% admin
- During work day:
 - 2 hrs EHR/Clerical work for every 1 hr clinical work
- On average, 1-2 additional hours on EHR and clerical work during personal time each night

Sinsky, Annals Internal Medicine 165:753



Rapidly Changing Environment

- Growth medical knowledge
- Productivity expectations (RVU; visits)
- Quality metrics
- Patient satisfaction
- MOC & CME



Staffing and Burnout in Primary Care

- Survey MD, NP/PA, RN, LPN, clerical assistants (n=4010)
- Assessed:
 - Panel size (within or overcapacity)
 - Panel co-morbidity
 - After ours 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: 49%
 - RN: 42%
 - LPN: 32%
 - CA: 36%

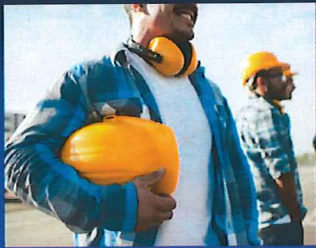
Helfrich, JGIM 32:760

Staffing and Burnout in Primary Care

- Largest differences burnout
 - Fully staffed vs. not
 - Panel overcapacity vs. not
 - Turnover any member of team last year
 - Held true for all occupations



Helfrich, JGIM 32:760



Shanafelt, Academic Medicine; In press 2018

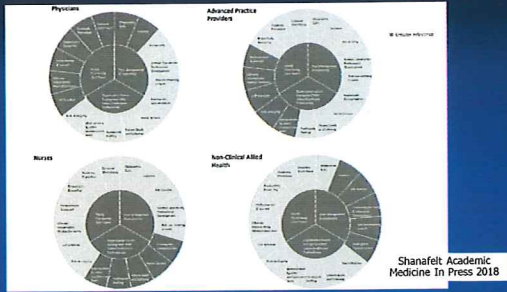
Its not one problem...

Contributing Factors

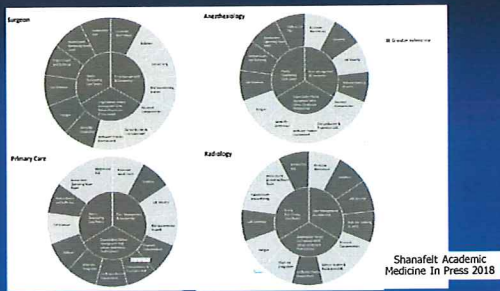


Shanafelt Academic Medicine In Press 2018

Differences by Occupation



Differences by Specialty



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

Seligman, Phil Trans R Soc London 359:1379 (2004)

Components of Happiness

- Pleasure → the pleasant life
 - Engagement → the good life
 - Meaning → the meaningful life
- } The full life

Seligman, Phil Trans R Soc London 359:1379 (2004)

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

Massimini, American Psychologist 55:24 (2000)

Designing optimal experiences

- Flow: peak experiences, states of absolute absorption



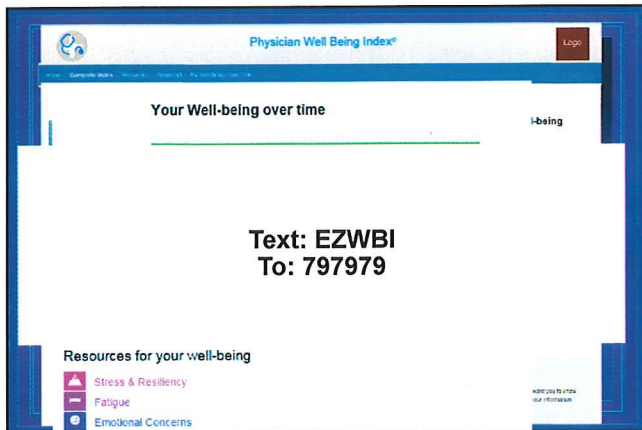
What can individuals do?

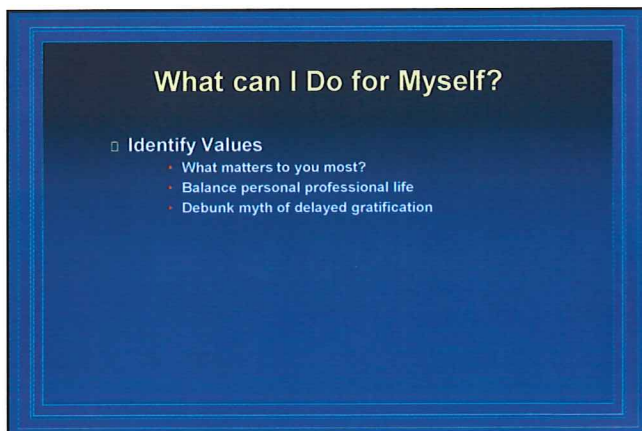


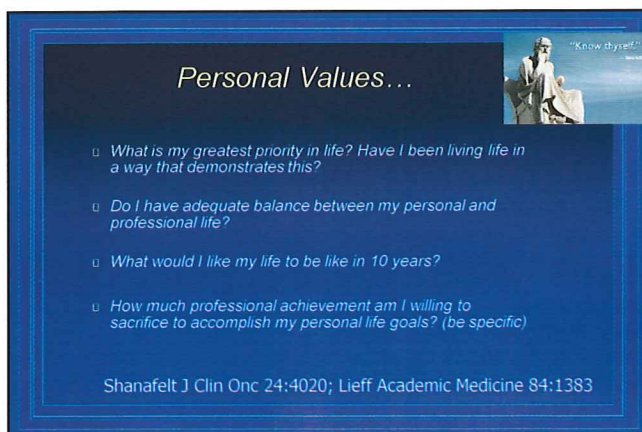
Do Physicians Accurately Calibrate Their Distress/Well-being?

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










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; Lief Academic Medicine 84:1383



Common Themes

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

Horowitz Annals Int Med 138:772; Schrijver PeerJ 4:e1783

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

Shanafelt, J Sup Oncology 3:157 (2005)

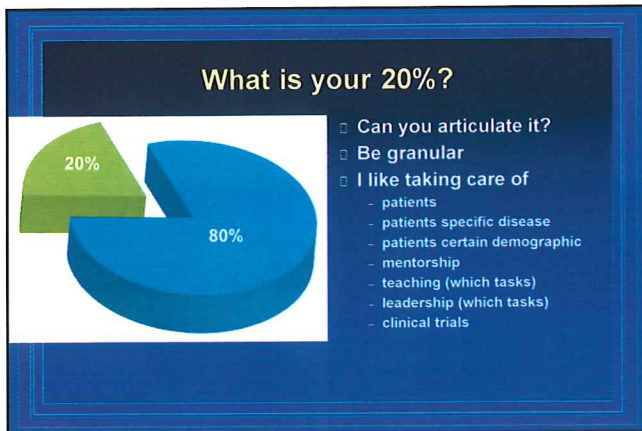
What can I Do for Myself?

- Identify Values
 - What matters to you most?
 - Balance personal professional life
 - Debunk myth of delayed gratification
- Optimize meaning in work
 - Flow
 - Choose/limit type of practice
 - Environment

Career "Fit"

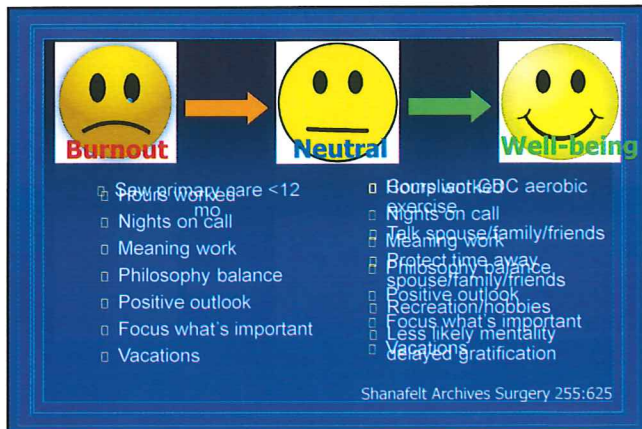
- 465 Internal medicine physicians Mayo Clinic
- Most personally meaningful aspect of work:
- Spending <20% effort in most meaningful activity strongly associated with burnout:
 - (53.8% vs. 29.9%; $p < 0.001$)
- Persist MV analysis adjust other factors (OR 2.75; $p = 0.001$)

Shanafelt, Archives IM 169 990 (2009)



"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
 - Environment
 - Nurture Personal Wellness Activities
 - Relationships (connect w/ colleagues; personal)
 - Religious/spiritual practice
 - Personal Interests (hobbies)
 - Self-care (exercise, sleep, regular medical care)



10 Keys to Resilience

- Optimism: belief in brighter future
- Facing fear: adaptive response
- Moral compass/ethics/altruism
- Religion & spirituality: drawing on faith
- Social support
- Resilient role models
- Training: physical fitness
- Brain fitness: challenge your mind & heart
- Cognitive and emotional flexibility
- Meaning, purpose, growth

Southwick and Charney. Resilience. Cambridge Press. 2012.

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

What Can Organizations Do?

Stanford Model

Leadership
Values Alignment
Voice/input
Meaning in work
Community/collegiality
Peer Support
Appreciation
Flexibility
Culture compassion



EHR usability
Triage
Scheduling
Patient portal
Documentation method
Team-based care
OR turnaround times
Staffing

Self-care (sleep, exercise, nutrition)
Self-compassion
Meaning in work
Work-life integration
Social support
Cognitive/emotional flexibility

Bohman, NEJM Catalyst 2016

Driver Dimensions



Shanafelt, Mayo Clinic Proceedings 91:422


Solutions: Where to Focus



Shanafelt. Mayo Clinic Proceedings 91:422

Organizational Strategies to Reduce Burnout & Promote Engagement

-  Acknowledge & Assess the Problem
-  Harness the Power of Leadership
-  Targeted Interventions to Improve Efficiency
-  Cultivate Community at Work
-  Rewards and Incentives
-  Value Alignment and Culture
-  Promote Flexibility & Work-life Integration
-  Resources to Promote Resilience and Self-care
-  Organizational Science

 Harness the Power of Leadership

Power of Leadership



- Behaviors physician supervisor large impact burnout & satisfaction individual physicians
 - Each 1 point \uparrow leader score \sim 4% \downarrow burnout ($p < 0.001$)
 - Each 1 point \uparrow leader score \sim 9% \uparrow 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
 - Humble inquire: asks suggestions how improve work unit
 - Facilitates career development
 - Recognizes job well done
- How demonstrate?¹⁻³
 - Annual review
 - Leadership Walkrounds
 - Structure, format, content of department meetings

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



Acknowledge & Assess the Problem



Targeted Interventions to Improve Efficiency

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

Swensen, Journal Health Care Management 61:105

Voice: Collaborative Action Planning

- When you've seen one unit you've seen one unit
 - "The system can ask the question but the answer is local."
- 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"

Swensen, Journal Health Care Management 61:105



Rewards and Incentives

Productivity-Based Pay



- How you are compensated influences risk of burnout
- U.S. Oncologists (n=1015)

	Burnout	p
Salary only	41%	P=0.01
Salary plus productivity bonus	47%	
Pure productivity based pay	54%	

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

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

Cultivate Community at Work

Fostering Community and Support From Colleagues

- Randomized controlled trial Mayo Clinic physicians

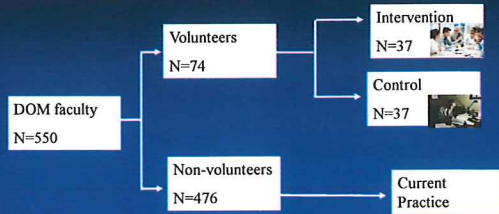
- Arm A (Group): n=37
 - meet 60 minutes every other wk for 9 months
 - Facilitated curriculum small group colleagues
 - Cognitive knowledge, shared experience, solutions
- Arm B (Admin Time): n=37
 - Receive 60 minutes every other wk for 9 months
 - professional/administrative tasks (~1% FTE)
- Non-trial: n=476



- Measure meaning in work, satisfaction, well-being

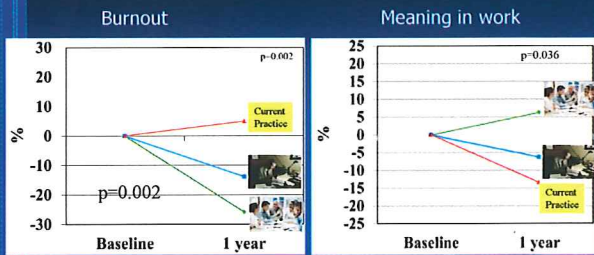
West JAMA Internal Medicine 174:527

2011 Mayo Clinic Intervention Trial



West JAMA Internal Medicine 174:527

Outcomes



West JAMA Internal Medicine 174:527

Iteration 2



- Sign up group 6-7 colleagues
- Dinner together every 2 weeks
- Sent 5 questions
 - Choose 1 to discuss 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

West JGIM 3:S89 (2015)

Does it work?

Systematic Review: Interventions to reduce burnout



- Systematic review identified 37 studies
 - 37 cohort
 - 15 randomized controlled trials
- Interventions work
- Individual and system interventions complementary
- We need to do both

West, Lancet 388:2272; Panagioti, JAMA Internal Medicine 177:195

Physician Burnout: Mayo Clinic Experience

Mayo Clinic	2011	2013	2015	2016
Emotional exhaustion	22%	39%	32%	30%
Depersonalization	8%	15%	12%	N/A
Overall burnout	24%	40%	33%	N/A

U.S. Physicians:	2011	2014
Emotional exhaustion	32%	43%
Depersonalization	19%	23%
Burnout	38%	49%

Shanafelt, Mayo Clinic Proceedings 92:129



