Addressing Physician Burnout & Promoting Resilience: the Organization's Role

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Learning objectives

I. Recognize the national trends in satisfaction and burnout among physicians & nurses

II. Identify the personal and professional consequences of burnout

III. Recognize organizational approaches to identify distress promote well-being

Disclaimer:
I am not going to focus on individual approaches to physician wellness in this talk

Dissatisfaction with Medical Practice

Confronting Depression and Suicide in Physicians
A Consensus Statement

Burnout in internal medicine physicians:
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

Canadian National Physician Survey

Sullivan, CMAJ 159:525 (1998)

- >3500 physicians responding (RR 44%)
- 62% Workload too heavy
- 55% Family & personal life suffers because physician
- 65% Opportunities to change career limited

Physician Career Satisfaction
(U.S. Surgeons n=7905)

- 71% responders would become physician again
- 51% would recommend their children become physician/surgeon
- 36% work schedule leaves enough time for personal/family life

Shanafelt, Annals of Surgery 250:463 (2009)

Physician Work Environment
(U.S. Family Physicians, n=442)

- 53% time pressure in office visits
- 48% work pace chaotic
- 78% low control over work
- 26% subjectively burned out

Linzer, Annals of Int Med 151:28-36 (2010)

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)

TDS2

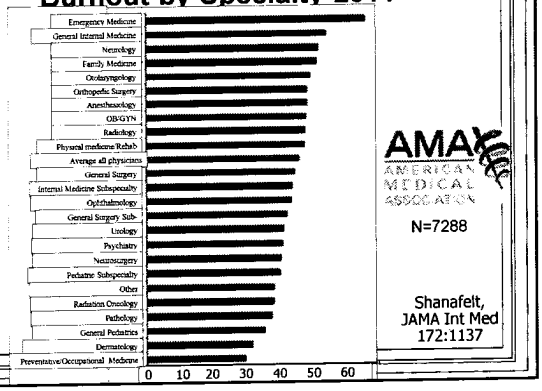
What is Burnout?

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

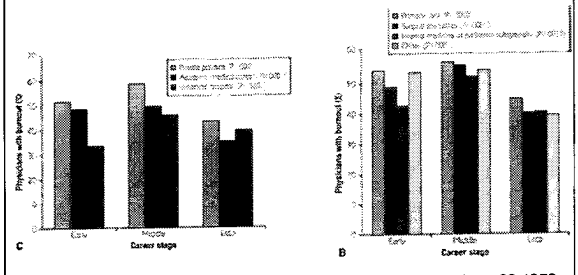
Maslach Burnout Inventory

- 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 2011



Career Stage



Dyrbye, Mayo Clinic Proceedings 88:1358

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 WLB	40%	23%	<0.001

Shanafelt, JAMA Int Med 172:1137

* 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.

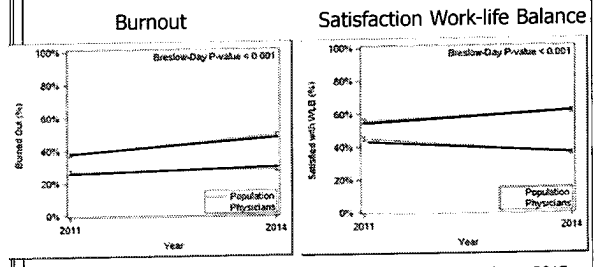
Pooled Multi-variate Analysis Physicians and Population

- **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, JAMA Int Med 172:1137

Physicians & Population



Shanafelt, submitted May 2015

Why Should We Care?

Consequences Physician Burnout

- **Patient satisfaction and compliance**
- **Medical errors[1-3]**
- **Professionalism[5 6]**
- **Patient Satisfaction[7]**
- **Reduce hours/turnover[9]**
- **Suicidal Ideation[9 10]**

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

Errors Among U.S. Surgeons

- Cross-sectional survey, ACS members
- Response rate 32% (n=7905)[1]
- "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 record[2]

[1] Annals of Surgery 251:995; [2] JGIM 16:809

Medical Errors:

- Definition[1]:

  A commission or omission with potentially negative consequences for the patient that would have been judged wrong by skilled and knowledgeable peers at the time it occurred, independent of whether there were any negative consequences

- Distinct from complications
- Do not necessarily = harm to patient
  - 53% self-perceived errors impact patients some studies[2]

[1] JAMA 265:2089 [2] JGIM 21:165

Self-reported Major Medical Errors Among U.S. Surgeons (n=7905)

- 9% of Surgeons Report Major Error last 3 months

	OR Reporting Error	p
Each 1 point increase EE*	1.05	<0.0001
Each 1 point increase DP*	1.11	<0.0001
Each 1 point decrease PA*	1.03	<0.0001

*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 Medical Errors With Resident Distress and Empathy

A Prospective Longitudinal Study

JAMA 302:1294 (2006)

JAMA 296:1071 (2009)

BO BO BO BO BO BO BO

Error

West JAMA 296:1071

Medical Errors Lead to Distress

Variable	Instrument	Effect of error	p
Burnout	MBI-DP	+2.45	.002
	MBI-EE	+4.58	.002
	MBI-PA	-2.59	.002
Depression	Positive 2-item screen	OR 3.29	<.001

West JAMA 296:1071

Distress Leads to Medical Errors

Variable	Instrument	OR of subsequent error	p
Burnout	MBI-DP	1.10	.001
	MBI-EE	1.07	<.001
	MBI-PA	1.08	.02
Depression	Positive 2-item screen	1.93	.08

West JAMA 296:1071

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 o[illegible] months
  - On MV analysis, each 1 point inc[illegible] OR=1.43 (p<0.[illegible]
  - On MV analysis, ea[illegible] 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)

2011 → 2013 → 2014

-burnout -satisfaction -burnout Likelihood reducing FTE -satisfaction Likelihood reducing FTE

Shanafelt, submitted

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

Patient:Nurse Ratio

Nurse Burnout ? Patient Outcome

Aiken JAMA 288:1987 (2002)

Nurse Burnout and Patient Satisfaction

- **Survey 820 nurses at 20 urban U.S. hospitals**
- **Work environment strongly related to all domains of burnout and intent to leave next 12 months**
  - **Adequate staffing**
  - **Good administrative support**
  - **Good relationships between nurses and physicians**
- **Patients cared for on units w lower nurse burnout had greater satisfaction medical care.**
- **Suggests that changes to work environment appear to offer opportunity to improve both patients satisfaction and nurse satisfaction**

Vahey, Med Care 42:1157

The human/personal cost of burnout

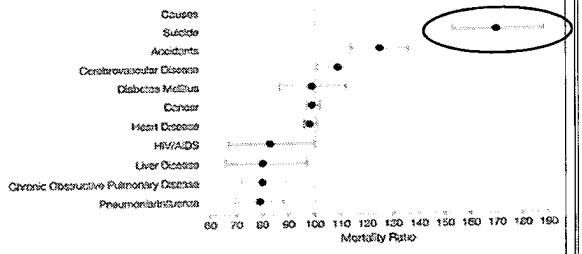
- **Loss of idealism and commitment**
- **Loss of sense work is meaningful (cynicism)**
- **Feelings of guilt and unworthiness**
- **Loss of direction/purpose**

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 is a disproportionately high cause of mortality in physicians relative other professionals

Center, JAMA 289:3161 (2003)

Proportionate Mortality Ratio:
Male Physicians vs Male Professionals



Center, JAMA 289:3161 (2003)

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

	OR	p
+ Depression screen	7.0	<0.001
Burnout	1.9	<0.001
Perceived error last 3 mo	1.9	<0.001
Youngest child age 19-22	1.6	0.004
Incentive pay only	0.8	0.035
Married	0.7	0.002
Practice academic medical center	0.6	<0.001

Shanafelt, Archives Surgery 146:54 (2011)

What are the Causes of Burnout?

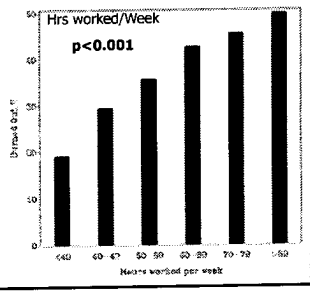
TDS3

Factors Contributing to Physician Distress

- ↑ clinical demands
- Decreased autonomy/control
- ↑ government/reimbursement issues
- Decreased time with patients
- Difficulty balancing personal & professional lives
- Isolation

Workload and Burnout

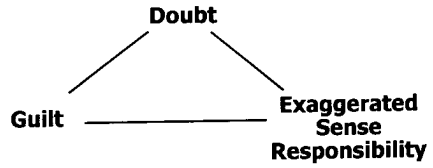
(U.S. Surgeons; n=7905)



Balch JACS 211:609

Are physicians at inherent risk? The "Physician Personality"

TRIAD OF COMPULSIVENESS



Gabbard JAMA 254:2926

The "Physician Personality"

Adaptive	Maladaptive
• Diagnostic rigor	• Difficulty relaxing
• Thoroughness	• Problem allocating time for family
• Commitment to patients	• Sense responsibility beyond what you control
• Desire to stay current	• Sense "not doing enough"
• Recognize responsibility of patients trust	• Difficulty setting limits
	• Confusion of selfishness vs. healthy self-interest
	• Difficulty taking time off

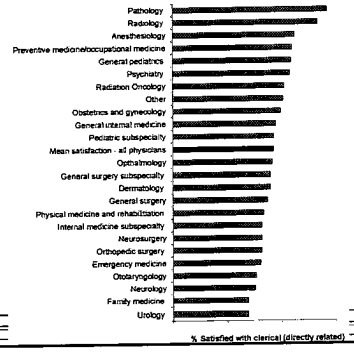
Gabbard JAMA 254:2926

Clerical Burden & Electronic Environment

- Only 37% U.S. physicians satisfied clerical burden
- 83% U.S. physicians use EMR
  - 44% dissatisfied with their EMR
  - Only 23% believe EMR has increased efficiency
- 74% use computerized order entry
  - 42% dissatisfied with their CPOE system
- 25% use an electronic patient portal
  - Only 22% believe has improved efficiency (51% disagree)

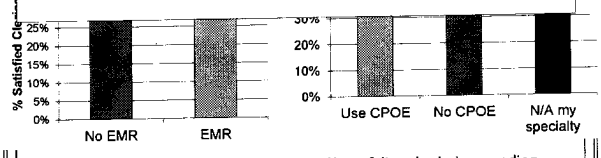
Shanafelt, submission pending

Satisfaction Clerical Burden by Specialty



Satisfaction Clerical Burden

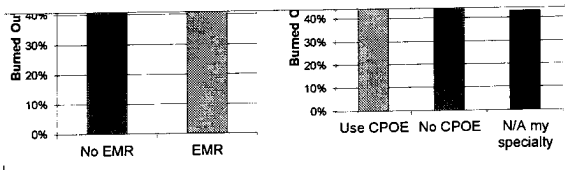
On MV Analysis Use of EMR (p<0.001) and CPOE (p<0.001) Independent Associated Decreased Satisfaction Clerical Burden



Shanafelt, submission pending

Burnout

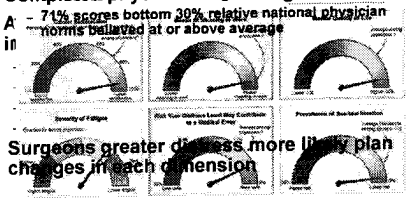
On MV Analysis Use CPOE ($p<0.001$) Independently Associated Decreased Satisfaction Clerical Burden



Shanafelt, submission pending

Do Physicians Accurately Calibrate Their Distress/Well-being?

- 1150 surgeons surveyed 2013
- Subjective assessment well-being poor
- Completed physician well-being index
  - 71% scores bottom 30% relative national physician norms believed at or above average
- A
  in



- Surgeons greater distress more likely plan changes in each dimension

Shanafelt, Annals Surgery 259:82

What is Well-being?

Well-being Literature Search

Meyers, American Psychologist 55:56 (2000)

Since 1887:	
Anger	8072 articles
Anxiety	57,800 articles
Depression	70,856 articles
Life satisfaction	5700 articles
Happiness	2958 articles
Joy	851 articles

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

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)

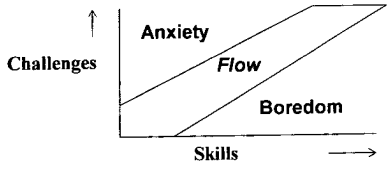
Theory: Flow

Massimini, American Psychologist 55:24 (2000)

- 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



What is Well-being?

What can Organizations Do?

Physicians as Employees

- Physicians increasing employed by organizations
  - 75% U.S. physician now employed hospital, academic MC, HMO, large practice group
- Physicians in organizations face unique challenges
  - Sacrifice of autonomy/flexibility
  - Productivity requirements
  - Accountability to leadership

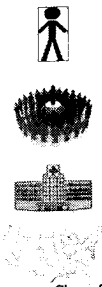
Merritt Hawkins 2012

Where to start....

- Understand the 5 drivers distress/satisfaction
- Increase efficiency in practice environment
- Enhance meaning in work
- Foster connections with colleagues
  - Community
  - Meaning
- Cultivate work-life integration
- Provide tools to help individuals
  - Self-calibrate
  - Promote own wellness (menu)

Drivers: Where to Focus

- Workload (optimize)
- Efficiency (enhance)
- Autonomy/flexibility
- Work-life integration
- Meaning in work
  - Collegiality



Shanafelt, 2014

Physician Work Environment

(U.S. Family Physicians, n=442)

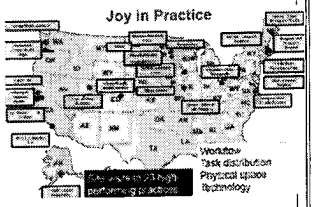
- 53% time pressure in office visits
- 48% work pace chaotic
- 78% low control over work

Linzer, Annals of Int Med 151:28-36 (2010)

Optimizing Workload and Efficiency ABIMF Study:

Christine A Sinsky, Tom Bodenheimer

- Visit 23 practices where physicians thriving
- 5 Key Challenges:
  - Chaotic visits
  - Teams functioning poorly
  - Inadequate support
  - EMR increasing work
  - Time documentation



Sinsky, Ann Fam Med 11:272

ABIMF Study

Christine A Sinsky, Tom Bodenheimer

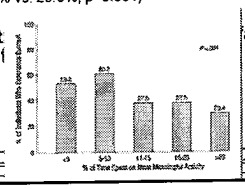
Chaotic Visits	⇒	Systematic pre visit planning
Teams functioning poorly	⇒	Pre-clinic huddle
Inadequate support	⇒	More verbal messaging
EMR increasing work	⇒	Nurses filter inbox Assistant order entry (3 hr/wk)
Time documenting	⇒	Scribing (6 sites) -increase access 30% -costs covered -increase satisfaction; increase quality -Physicians home earlier

Meaning in Work

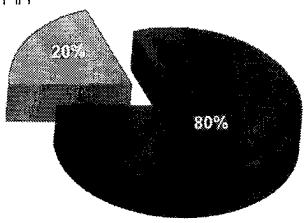
Career "Fit"

Shanafelt, Archives IM 169:990 (2009)

- 465 Internal medicine physicians Mayo Clinic
- Most personally meaningful aspect of work:
  - Patient care 68%
  - Education 28%
  - Administration 3%
- Spending ≤20% effort in most meaningful activity strongly associated with burnout:
  - (53.8% vs. 29.9%; p<0.001)
- Persist[illegible] actors (OR 2.75; p=0.00[illegible]



Getting to 20%....



- Can you articulate it?
- Be granular
- I like taking care of
  - patients
  - patients with x, y, z
  - women >age 60
  - Clinical trials
  - Mentorship
  - Teaching (which tasks)
  - Leadership (which tasks)
- Does your manager know?
- Can you develop new skills

"Do first things first, and second things not at all." - Peter Drucker

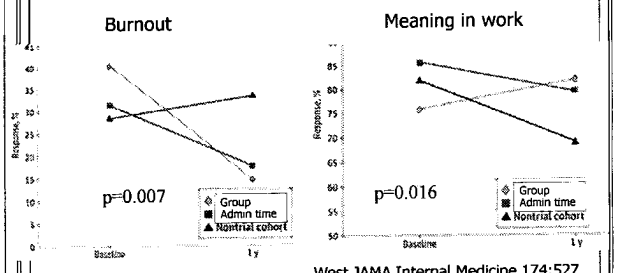
Fostering Community and Support From Colleagues

- Randomized controlled trial Mayo Clinic physicians
  - Arm A (Group): 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

This was on company time

West JAMA Internal Medicine 174:527

Outcomes

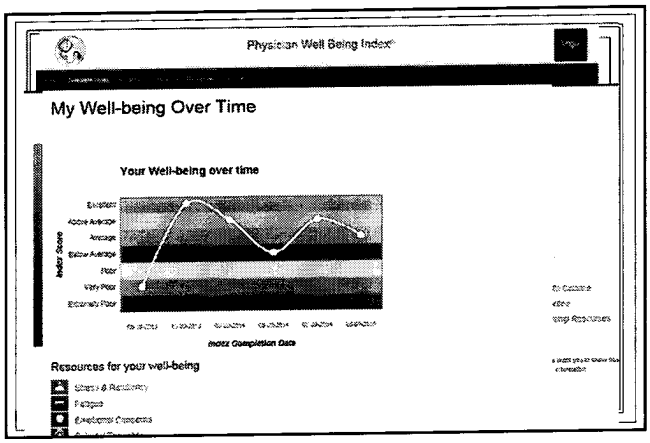


West JAMA Internal Medicine 174:527

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 ~9%↑ 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



Tools to Promote Own Wellness

- Physical health (diet, exercise, medical care)
  - Exercise facility
  - Food offerings on campus
  - Incentives
- Work-life integration
  - Adequate time off
  - On site childcare
  - Limits overtime/call/hospital coverage
  - Organizational culture
- Coaching
- Self-awareness/resilience training
  - Mindfulness
  - Narrative medicine

Does Reducing Physician Distress Benefit the Organization?

St. Paul Insurance Company Conducted 4 studies evaluating effects employee stress on quality of care and malpractice claims:

1. Departments (n=91) with greater stress had more malpractice claims
2. Organizational stress score at 61 hospitals strongly related frequency malpractice claims
3. Employee stress reduction program at 1 hospital reduce medication errors ~50%
4. Case Control study implementing this program at 22 hospitals reduced malpractice claims 70% compared to no reduction control hospitals

Jones J Appl Psych 73:727

Summary

- Burnout common among physicians
  - Gap physicians and U.S. workers other fields widening
- Physician distress has professional consequences
  - Errors
  - Reductions professional effort
- Personal approaches to promote well-being
  - Cultivate meaning in work (flow)
  - Values and work-life integration challenging (relationships)
- Organizational approaches to promote well-being
  - Leadership matters
  - Electronic environment
  - Meaning/community
  - Flexibility

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

- Henry V, Act 2, scene 4