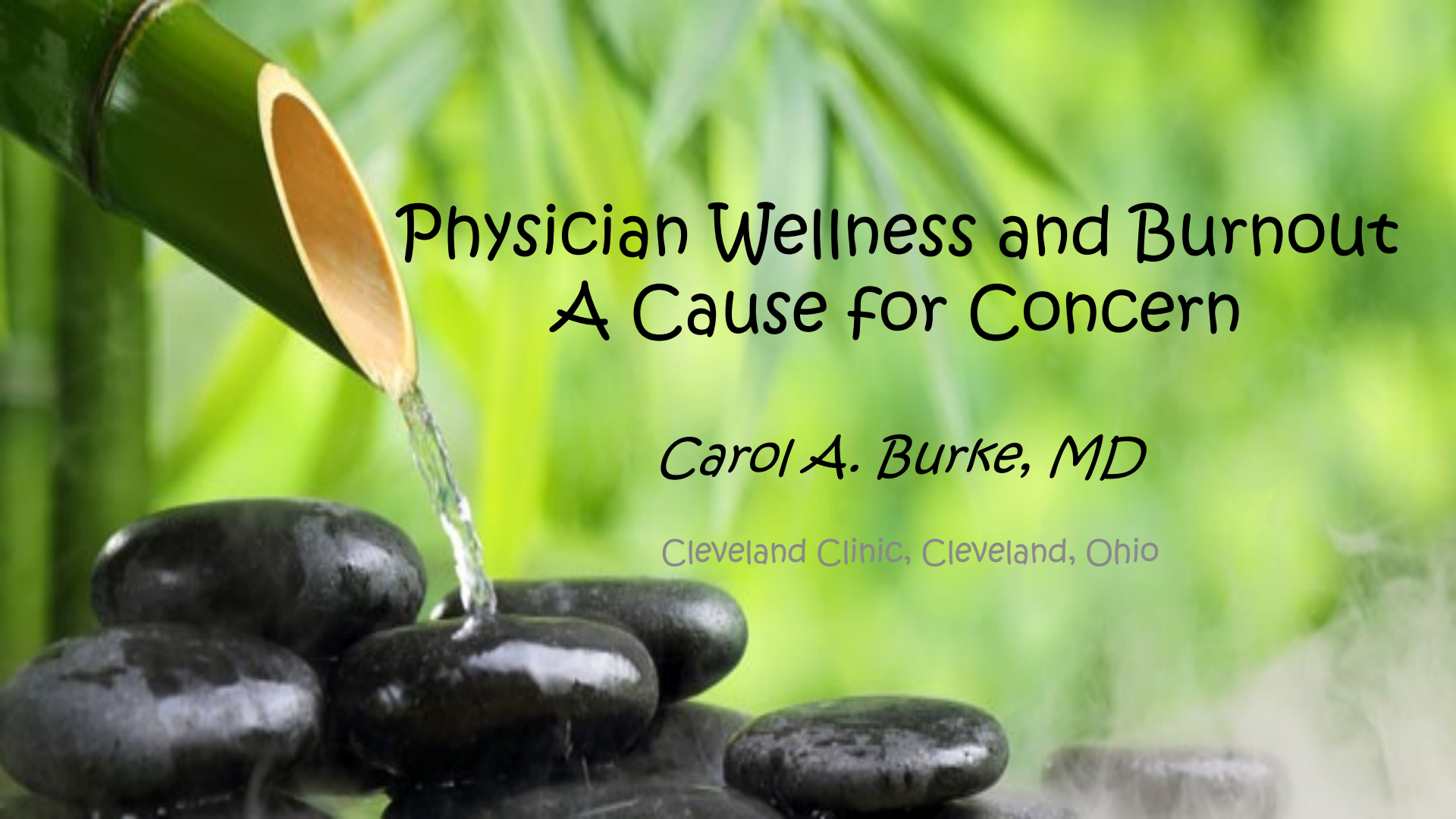
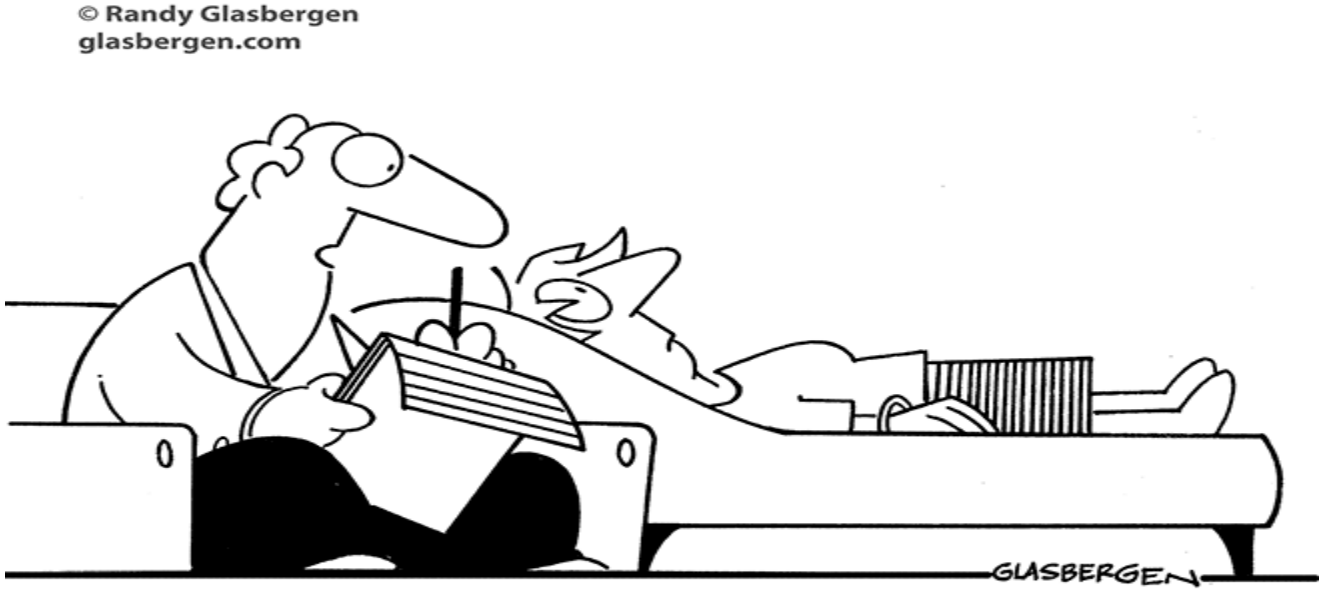


Physician Wellness and Burnout
A Cause for Concern

Carol A. Burke, MD

Cleveland Clinic, Cleveland, Ohio

Why Wellness?



"According to the latest scientific research, the human body is 60% water and 40% stress."

Physician Work Stressors

- Metrics
- EMR
- Long Hours
- Sleep Deprivation
- Reimbursement/ Contracts
- Loss of Autonomy
- Government Regulation
- Finances/Debt
- Disruptive Colleagues
- Employee Satisfaction
- Production Pressure
- MOC
- Work Life Balance
- Time on tasks inconsistent with career goals
- Patient Satisfaction
- Litigation

Health Care Reform

Improve the Health of Populations

Enhance Patient Experience
Quality and Satisfaction

Decrease Cost of Care

Institute for Health Care Improvement

Biologic Impact of Stress

- Acute stress activates sympathetic-adrenal-medullary and hypothalamic-pituitary-adrenal axis
- Excess and sustained cortisol secretion leads to HTN, osteoporosis, immunosuppression, insulin resistance, dyslipidemia, cardiovascular disease, depression, anxiety, burnout, death

Trends Neurosci 1997; 20:78–84
Brain Behav Immun 2007; 21:1000–1008.
Proc Natl Acad Sci U S A 2001; 98:4770–4775.

Working to Death?

- 45% of MDs work > 60 hours/week vs 22% of Japanese and < 10% of US workers
- No Japanese term for “work-life balance”
- “Karoshi” is a word: “death by overwork.”
- Karoshi considered inevitable result of Japan’s work culture that it’s hardly discussed
- Claims for karoshi-related cases rose to record high of 2,310 in 2016

https://www.washingtonpost.com/world/asia_pacific/do-japanese-really-work-themselves-to-death-in-some-cases-yes/2016/07/31/

The New York Times

The Opinion Pages | Op-Ed Contributor

Why Do Doctors Commit Suicide?

By PRANAY SINHA

SEPT. 4, 2014

NEW HAVEN — TWO weeks ago, two medical residents, in their second month of residency training in different programs, jumped to their deaths in separate incidents in New York City.

- MDs more than 2x as likely to kill themselves as nonphysicians
  - Female MDs 3x as likely than male MDs
- ~ 400 doctors commit suicide every year

Workplace Implications of Stress

- Burnout
- Disruptive Behavior
- Decreased Productivity
- Poor Quality and Safety
- Disengagement

"How can you be suffering from burnout? You've never really caught fire in this organization."

American Worker Engagement

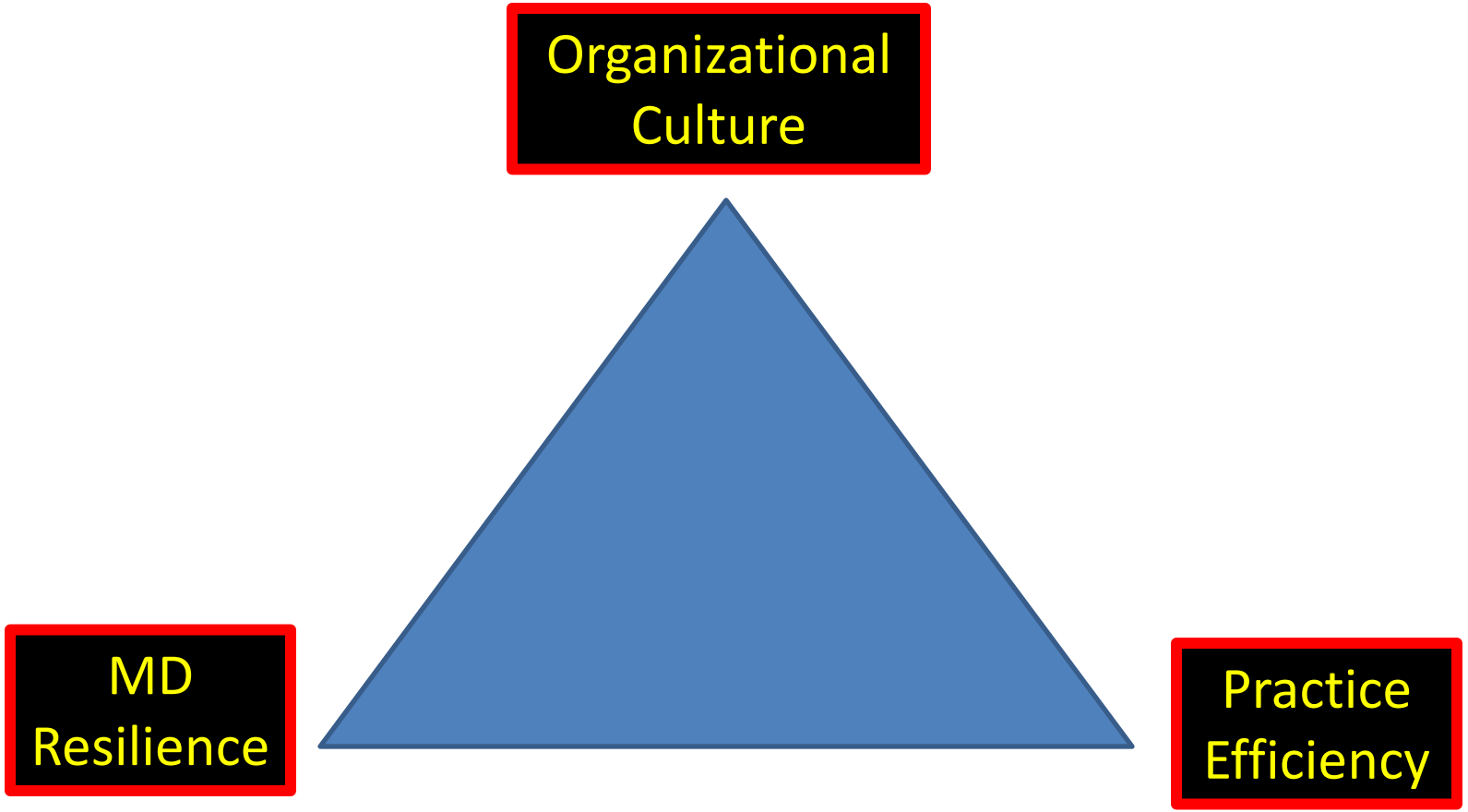
- **32%** feel engaged at work
- More *satisfied* and *productive* when core needs met:
  - **Physical:** Opportunity to renew and recharge at work
  - **Emotional:** Feel valued and appreciated for contributions
  - **Mental:** Opportunity to focus on most important tasks; Define when and where work gets done
  - **Spiritual:** Feeling connected to a higher purpose at work

http://news.gallup.com/businessjournal/188033/worldwide-employee-engagement-crisis.aspx

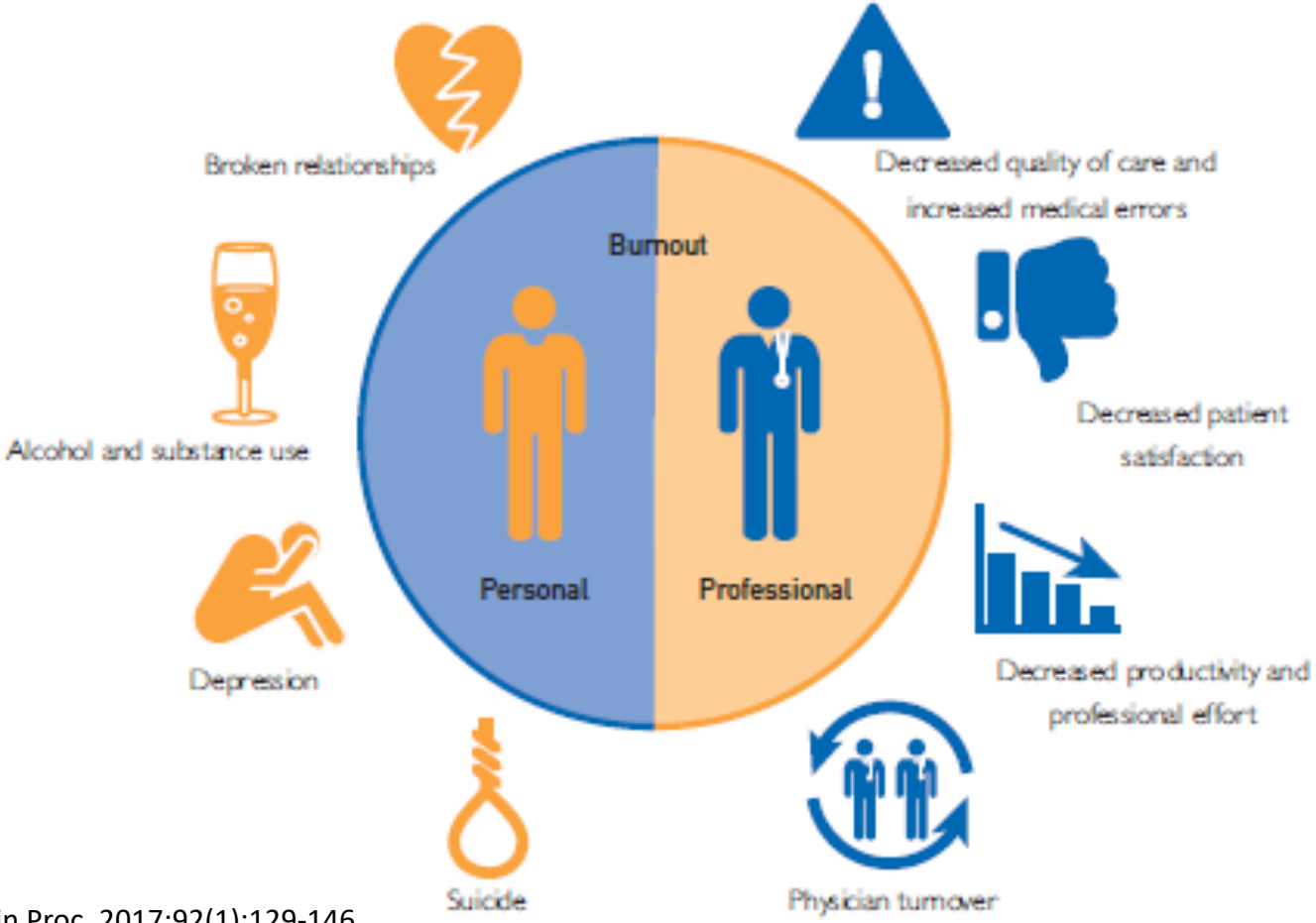
What is Burnout?

- Work related syndrome characterized by
  - Low sense of personal accomplishment
  - Emotional exhaustion
  - Depersonalization (cynicism, lack compassion for others)

Domains Impacting Burnout



Burnout: An Health Care Epidemic



Shanafelt T,, Mayo Clin Proc. 2017;92(1):129-146

Organizational Drivers of Burnout

- Excessive workload
- Inefficient work processes
- Clerical burden
- Lack of input or control on practice issues
- Misalignment of values between providers and leadership

J Intern Med. 2018 Mar 5. doi: 10.1111/joim.12752. [Epub ahead of print]

National Survey of Burnout

- Determine prevalence and factors associated with burnout in gastroenterologists
- 60 item survey emailed to ACG members (2014-2015)
- Burnout: High scores of ***Emotional Exhaustion*** and ***Depersonalization*** on Maslach Burnout Inventory

Burke CA, et al. Am J Gastroenterol 2017;112:S593

Methods

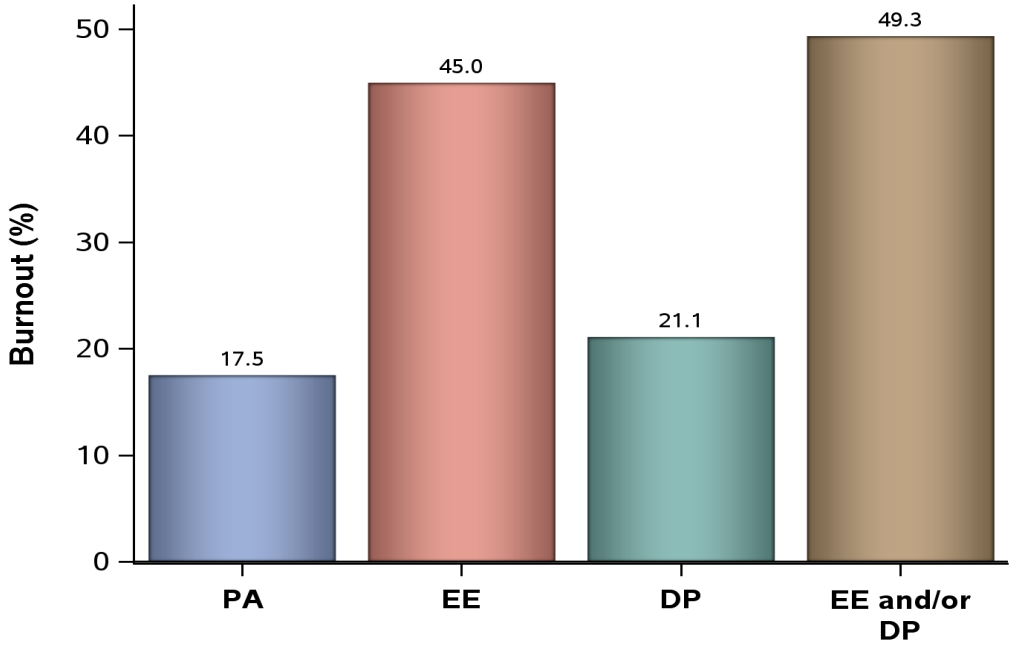
- The 22 item Maslach Burnout Inventory (MBI)

Burnout Score	Personal Accomplishment	Emotional Exhaustion	Depersonalization
High	0-31	≥ 27	≥ 13
Moderate	32-38	17-26	7-13
Low	≥ 39	0-16	0-6

http://education.med.ufl.edu/files/2010/10/3455-mbi-scoring-key-2.pdf

Burnout by MBI subscale

- 11080 ACG members; 9.2% response rate
- 754 completed all MBI questions



Results: Demographic and Practice Responses

	No Burnout N=382	Burnout N=372	P value
Female **Male**	35.6% 54.3%	64.4% 45.7%	<0.001
Age, yrs	54.2 ±10.3	50.4 ± 9.2	<0.001
Part time **Full time**	61.7% 50.3%	38.3% 49.7%	0.13
Private **Academia** **Veterans** **Other**	49.9% 52.1% 45.5% 56.4%	50.1% 47.9% 54.5% 43.6%	0.72
Urban Practice **Suburban Practice** **Rural Practice**	54.7% 48.0% 44.1%	45.3% 52.0% 55.9%	0.090
Compensation Type **Salary only** **Salary & incentive** **Other**	 43.9% 50.8% 60.9%	 56.1% 49.2% 39.1%	0.084
EMR User friendly **EMR Not user friendly** **Do not use**	54.1% 44.2% 65.1%	45.9% 55.8% 34.9%	0.002

Results: Domestic Characteristics

	No Burnout	Burnout	P value
HOURS/*WEEK*			
Domestic chores	6.0 [4.0,10.0]	8.0 [5.0,10.0]	<0.001
Caring for children	0.00 [0.00,7.0]	2.0 [0.00,10.0]	0.015
HOURS/DAY			
Performing patient-related tasks at home	1.00 [0.00,1.00]	1.00 [0.00,2.00]	0.019
Performing non-patient work-related tasks at home	1.00 [0.00,1.00]	1.00 [0.00,1.00]	0.40
HOURS/WEEK EMPLOYED SPOUSE SPENDS			
At work or home in employment related activities	40.0 [20.0,50.0]	40.0 [30.0,50.0]	0.003
On domestic chores	12.0 [7.0,20.0]	12.0 [10.0,20.0]	0.86
Caring for children	5.0 [0.00,20.0]	5.5 [0.00,20.0]	0.28

Median [25th and 75th]

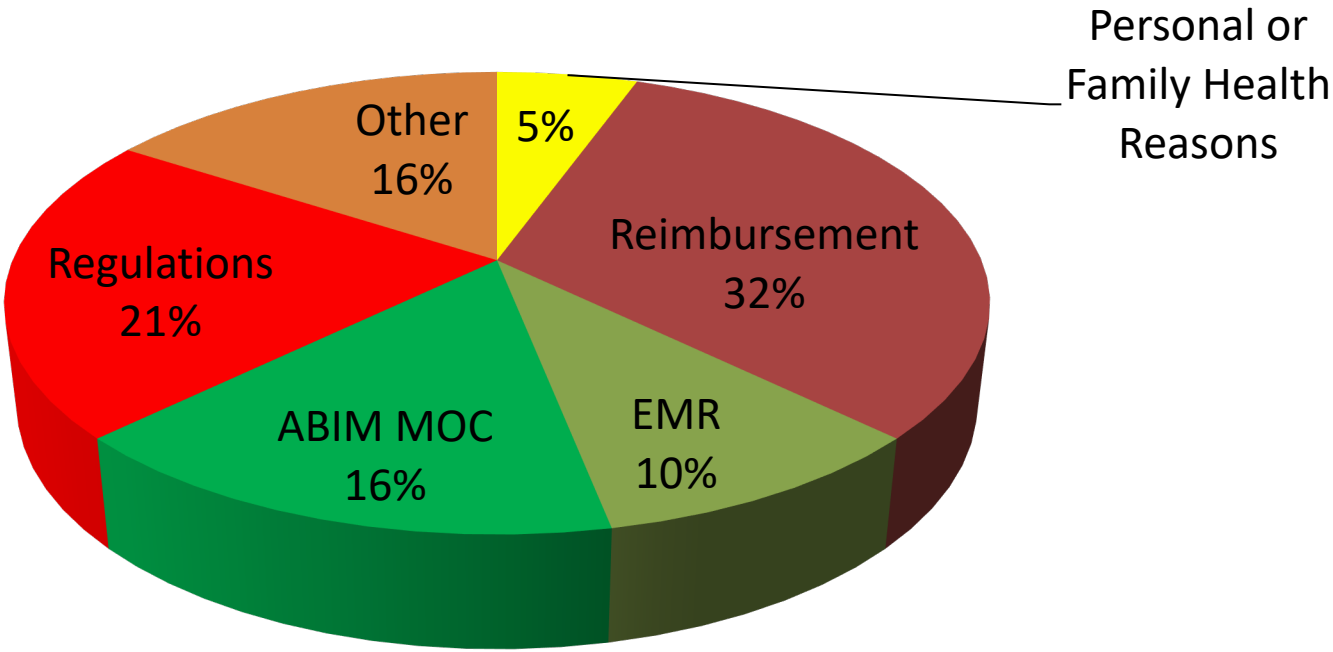
Results: Social and Family Responses

	No Burnout	Burnout	P value
SATISFACTION WITH SPOUSE/PARTNER RELATIONSHIP			<0.001
Neutral/Dissatisfied	35.1%	64.9%	
Somewhat/Extremely satisfied	54.3%	45.7%	
AGE OF YOUNGEST CHILD			0.006
No children	39.7%	60.3%	
<10 years	47.5%	52.5%	
11-15 years	43.0%	57.0%	
16+ years	57.0%	43.0%	
AGE OF OLDEST CHILD			<0.001
<10 years	49.3%	50.7%	
11-15 years	30.8%	69.2%	
16+ years	56.2%	43.8%	

Results: *Health Responses and BO*

	No Burnout	Burnout	P value
Moderate Exercise			0.75
0-120 min/wk	50.4%	49.6%	
>120 min/wk	51.8%	48.2%	
Work days with breakfast and lunch			0.038
0-50%	46.9%	53.1%	
> 50%	54.6%	45.4%	

Thoughts of Early Retirement: 46%



Plan retirement early/Leave practice ≤ 2 years: Burnout 64.2% vs 35.8%, p <0.001

Burnout

MULTIVARIABLE ANALYSIS	OR (95% CI)	P value
Age (1 yr increment)	0.94 (0.92,0.96)	< 0.001
EMR User friendly vs not	0.56 (0.29,1.09)	0.089
Domestic chores/wk (3 hour increment)	1.09 (1.01, 1.06)	0.036
Relationship Satisfaction Somewhat/Extremely vs Neutral or Dissatisfied	0.53 (0.35, 0.83)	0.005
Oldest child < 10 yrs vs No children	0.56 (0.29, 1.1)	0.094
11-15 yrs vs No children	1.5 (0.68, 3.3)	0.31
> 15 yrs vs No children	1.2 (0.61, 2.2)	0.63
Eating Breakfast and Lunch > 50% days vs Not	0.75 (0.54, 1.04)	0.088
Early Retirement/Leaving Practice in 2 yrs vs Not	3.5 (2.5, 4.9)	<0.001

Stress Leads to Disruptive Behavior

Impact of Disruptive Behavior

- Poor adherence to practice guidelines
- Loss of patients
- Low staff morale and turnover
- Decreased staff and patient satisfaction
- Medical errors, adverse outcomes, malpractice claims
  - Association between patient complaints and MDs risk management profiles
- Consistently doctor-patient, doctor-doctor, and staff-doctor ***communication*** is disruptor of team function and driver of risk management activity

Impact of Managing Disruptive Behavior

- Improved staff satisfaction and retention
- Enhanced reputation for the practice
- Creation of a culture of professionals who are role models for trainees and one another
- Improved patient safety
- Reduced liability exposure and risk management activity
- Greater productivity, civility and desirable work environment

Wellness in Practice

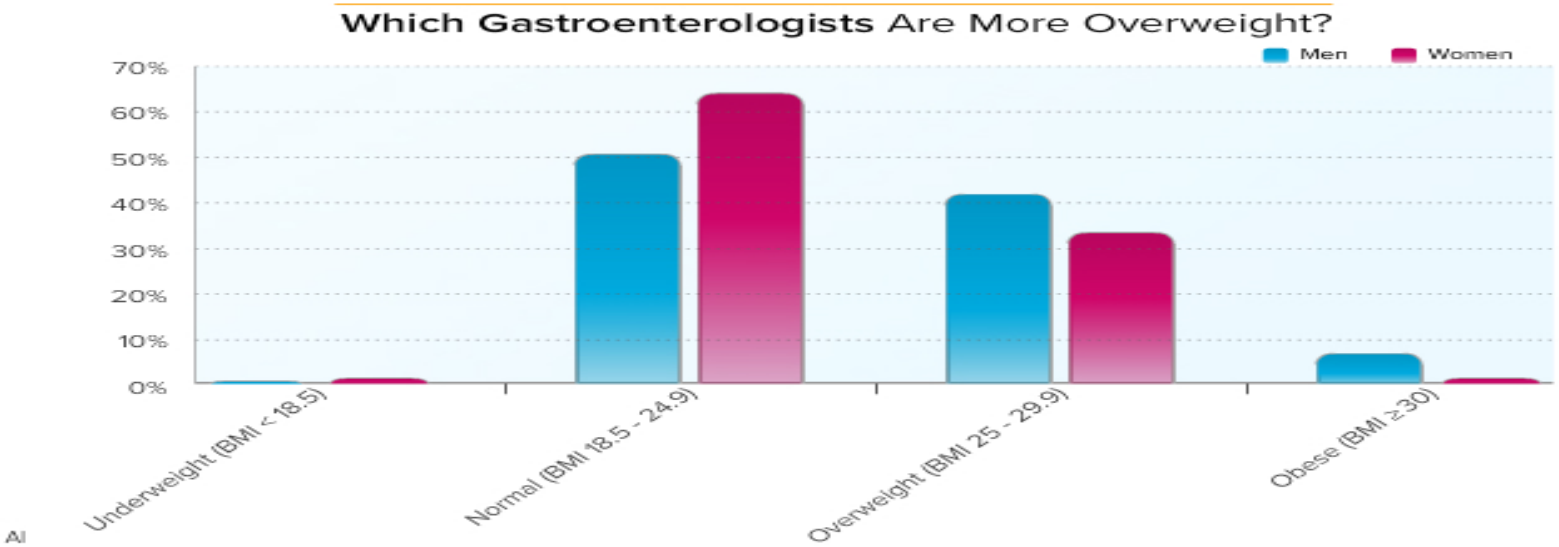
- Ability to be self-aware, curious, resilient, and fully present in an environment that supports healing relationships among clinicians, patients, and families

Physician Heal Thyself

Symptoms Providers Would Go to Work with	MD (N =280)	APP (N=256)
Fever/chills and body aches	19%	11%
Acute significant respiratory symptoms	60%	51%
Acute vomiting and diarrhea	9%	5.5%
Fever only	22%	10%
Diarrhea only	39%	20%
Vomiting only	7.5%	3%
Cough and rhinorrhea only	80%	70%

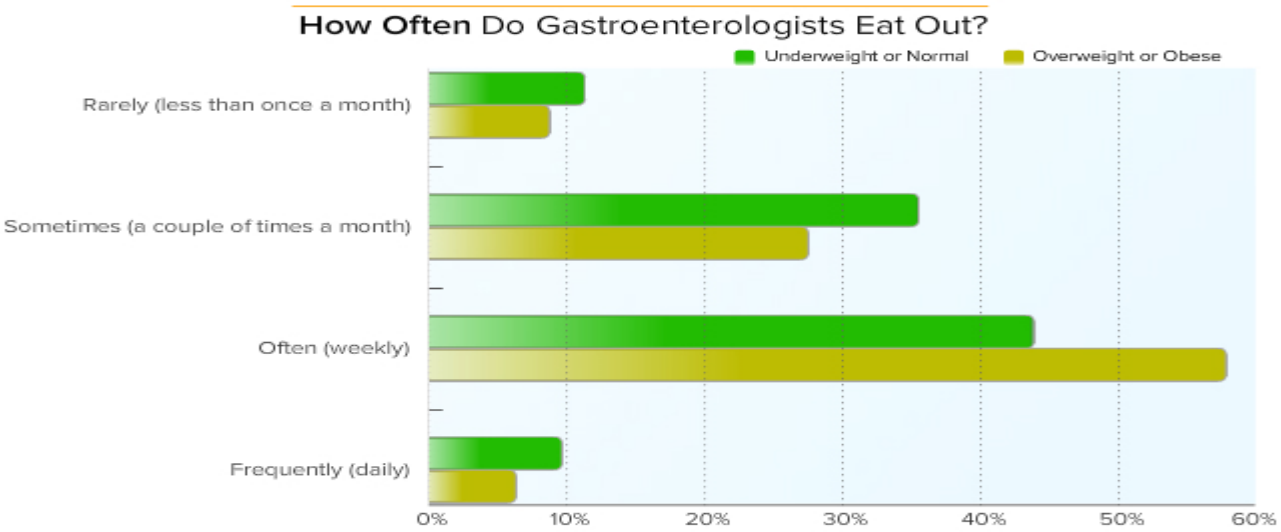
JAMA Pediatr. 2015;169(9):815-821.

Gastroenterologists and Health



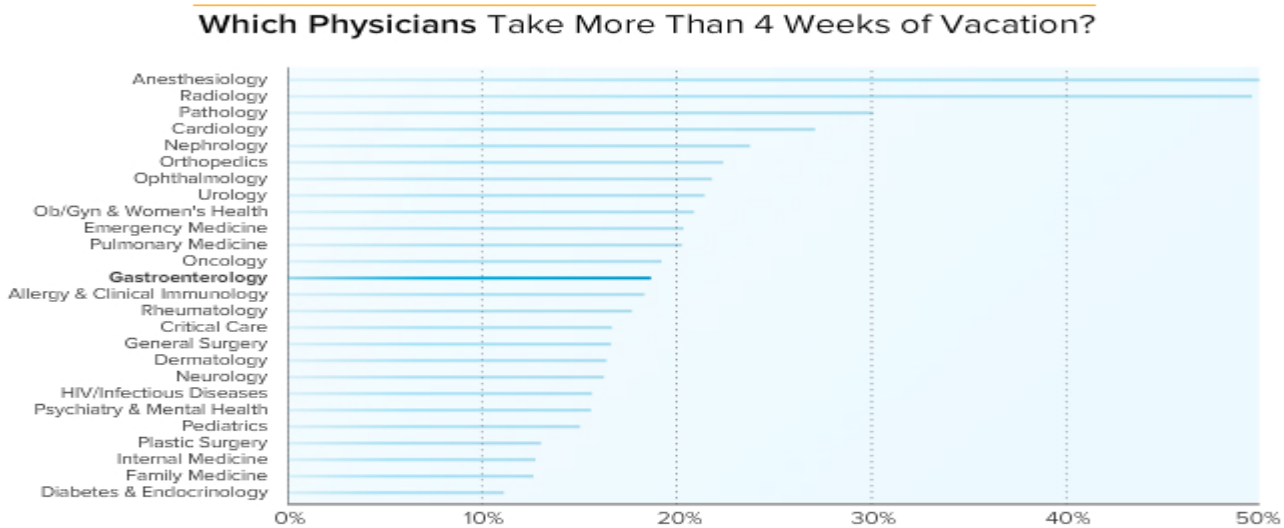
Medscape Gastroenterologist Lifestyle Report 2014

Gastroenterologist and Health



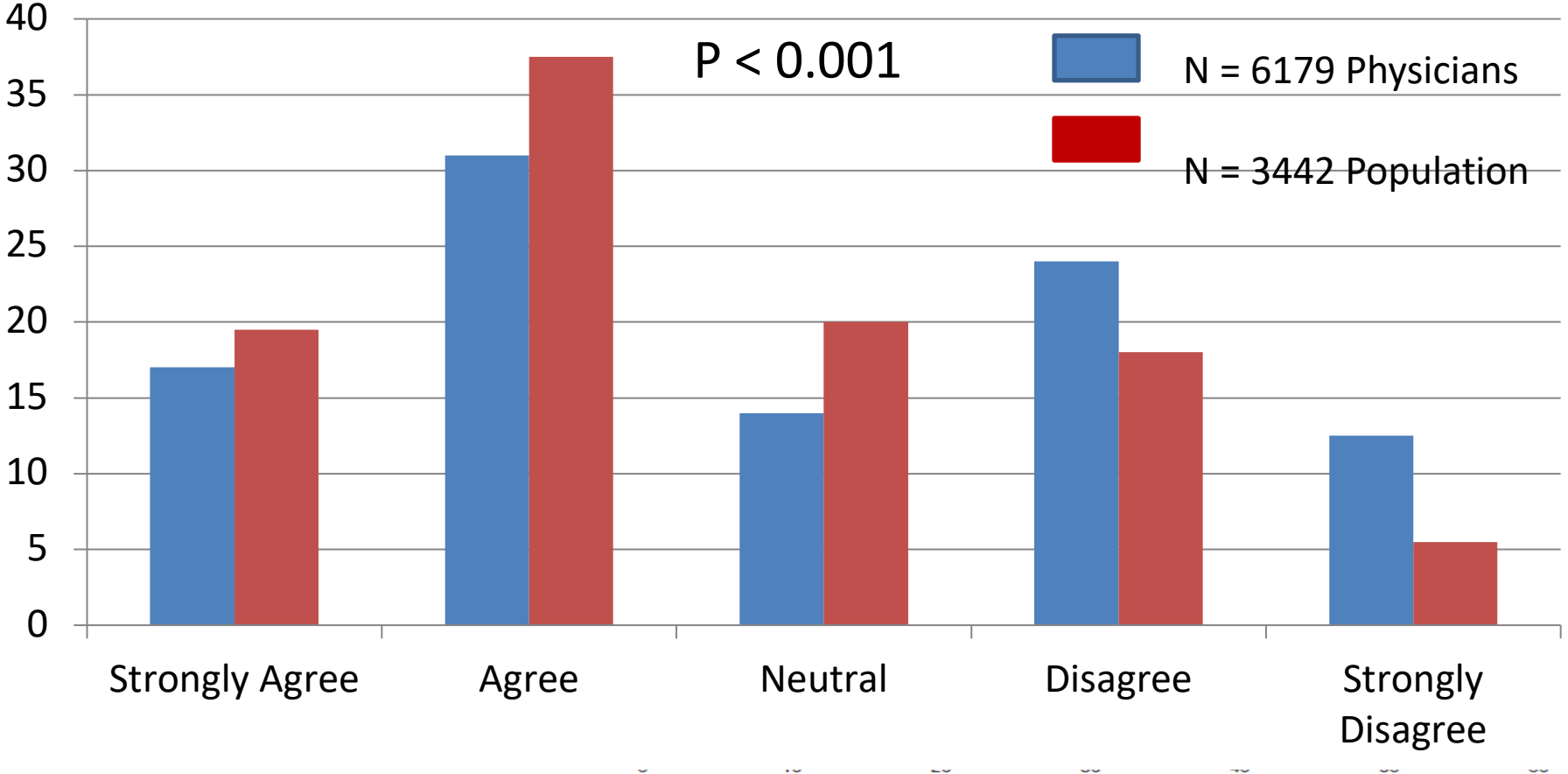
Medscape Gastroenterologist Lifestyle Report 2014

Gastroenterologist and Wellness



Medscape Gastroenterologist Lifestyle Report 2014

Satisfaction with Work Life Balance



Shanafelt T, Arch Intern Med 2012;172

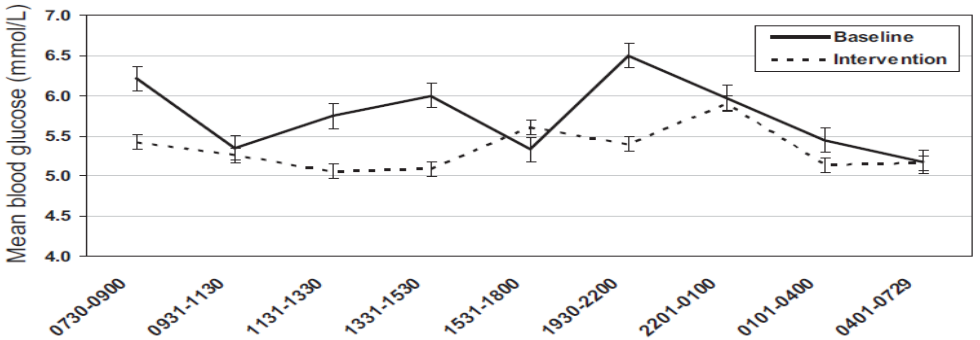
Apgar of Medical Marriages

Satisfaction with Relationship	N = 891
Extremely	55%
Somewhat	31%
Neither satisfied or dissatisfied	4%
Somewhat dissatisfied	7%
Extremely dissatisfied	2%
Time spent awake with spouse/partner per day (mins)	
≤ 20	9%
21-45	17%
46-90	24%
91-120	21%
> 120	28.5%

Shanafelt, T D. Mayo Clinic Proceedings 2013: 88

Nutrition and Cognition

- Food and beverage intervention
- 20 MDs in hospital in Canada
- Nutrition in 6 small meals
- Assessed hypoglycemia and cognition
  - Brain Checkers software



- Intervention improved speed and accuracy of cognition, lower and less variable BS, and increased hydration

Lemaire, J B. BMC Health Services Research 2010: 10

Diet and Chronic Disease

- Leading causes of mortality and healthcare costs include cardiovascular disease, cancer, diabetes
- These are diseases of *lifestyle and environment*

- Assessed ***smoking, BMI***, ***exercise*** and ***plant based diet*** on incident DM, MI, CV
- Da

Those with all 4 healthy lifestyle factors had decreased incident disease DM 93%, MI, 81%, CVA 50%, Cancer 36%

	Incidence of Cancer, DM, MI, Stroke				
Lifestyle Factors	0	1	2	3	4
No. Subjects	924	5491	8206	6432	2100
PY-FU	6510	42128	64551	50990	16636
	Ref	0.51(0.43-0.60)	0.37 (0.43-0.60)	0.28(0.24-0.33)	0.22 (0.17-0.28)

Arch Intern Med. 2009;169(15):1355-1362

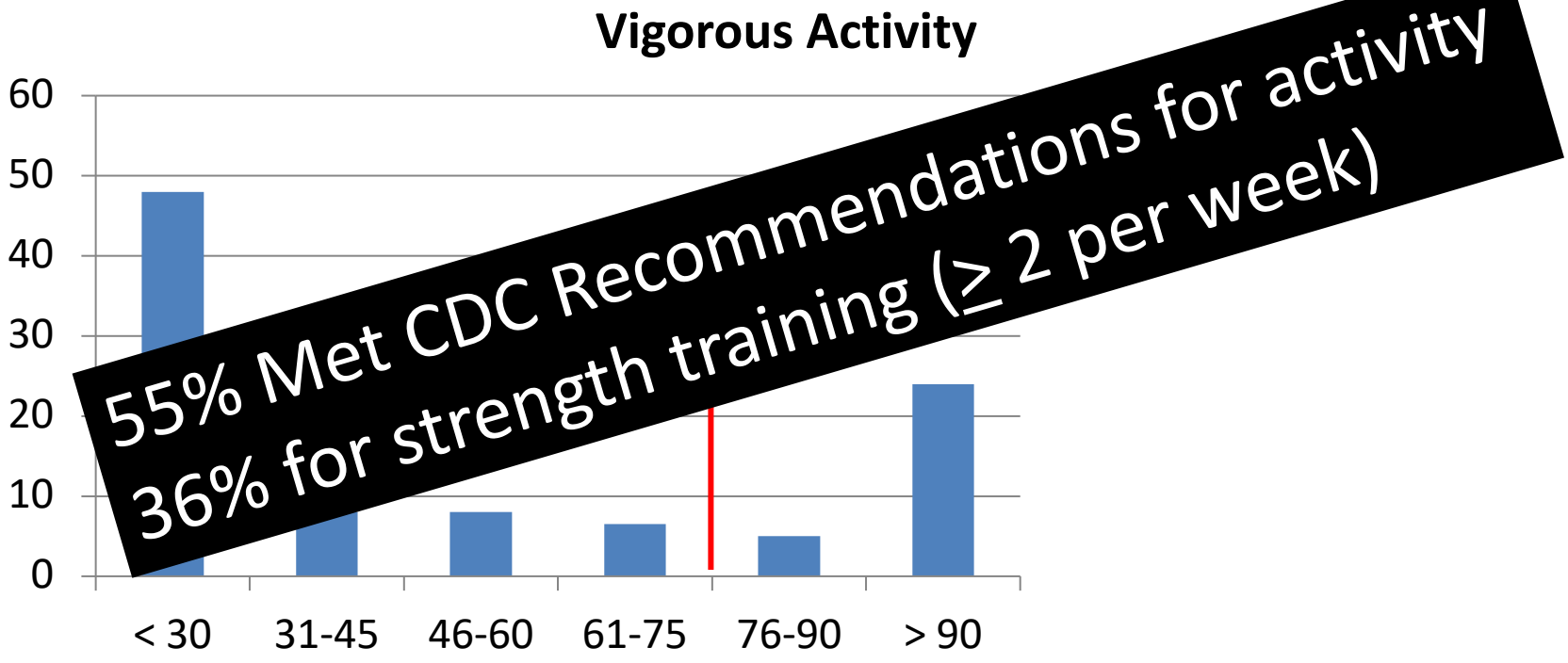
Physical Activity Guidelines

- ≥ 150 minutes of moderate-intensity aerobic activity or 75 minutes of vigorous-intensity activity (or a combination of both)/week, plus
- Strength training activities involving all major muscle groups ≥ 2 days/week.

http://www.health.gov/paguidelines/pdf/paguide.pdf

MD Wellness and Physical Activity

7197 surgeons



Shanafelt TD, Ann Surg: 2012

Factors Associated with High QOL

Wellness Strategies	OR (95% CI)	P value
Compliant CDC activity guidelines	1.2 (1.1-1.4)	0.0004
Find meaning in work	1.5 (1.3-1.7)	< 0.0001
Positive Outlook	1.7 (1.5- 2.0)	< 0.0001
Incorporate Work Life Balance	1.6 (1.3-1.8)	< 0.0001
Focus on what is important in life	1.4 (1.2-1.6)	< 0.0001
Take vacations	1.4 (1.2-1.6)	< 0.0001
Recreation/hobbies exercise	1.2 (1.0-1.4)	< 0.0001
Regular meeting with psychiatrist	0.46 (0.29-0.71)	0.0004
Looking forward to retirement	0.37 (0.32-0.43)	< 0.0001

Shanafelt TD, Ann Surg: 2012

Exercise on Burnout and QOL

- Survey of 4402 medical students
- Comparison of BO and QOL in trainees meeting CDC target vs not meeting target

Exercise	Meeting Target	Burnout	QoL
Aerobic	63%	53.1% vs 60.8%, <0.001	7.2 vs 6.6, <0.001
Strength	38.5%	51.8% vs 58.6%, <0.001	7.2 vs 6.8, <0.001

Independent Factors Associated with Lower BO		
Exercise	OR (95% CI)	P value
Aerobic	0.79 (0.69, 0.92)	0.002
Strength	0.81 (0.75, 0.99)	0.04

Dyrbye, et al Acad Med 2017;92:1006

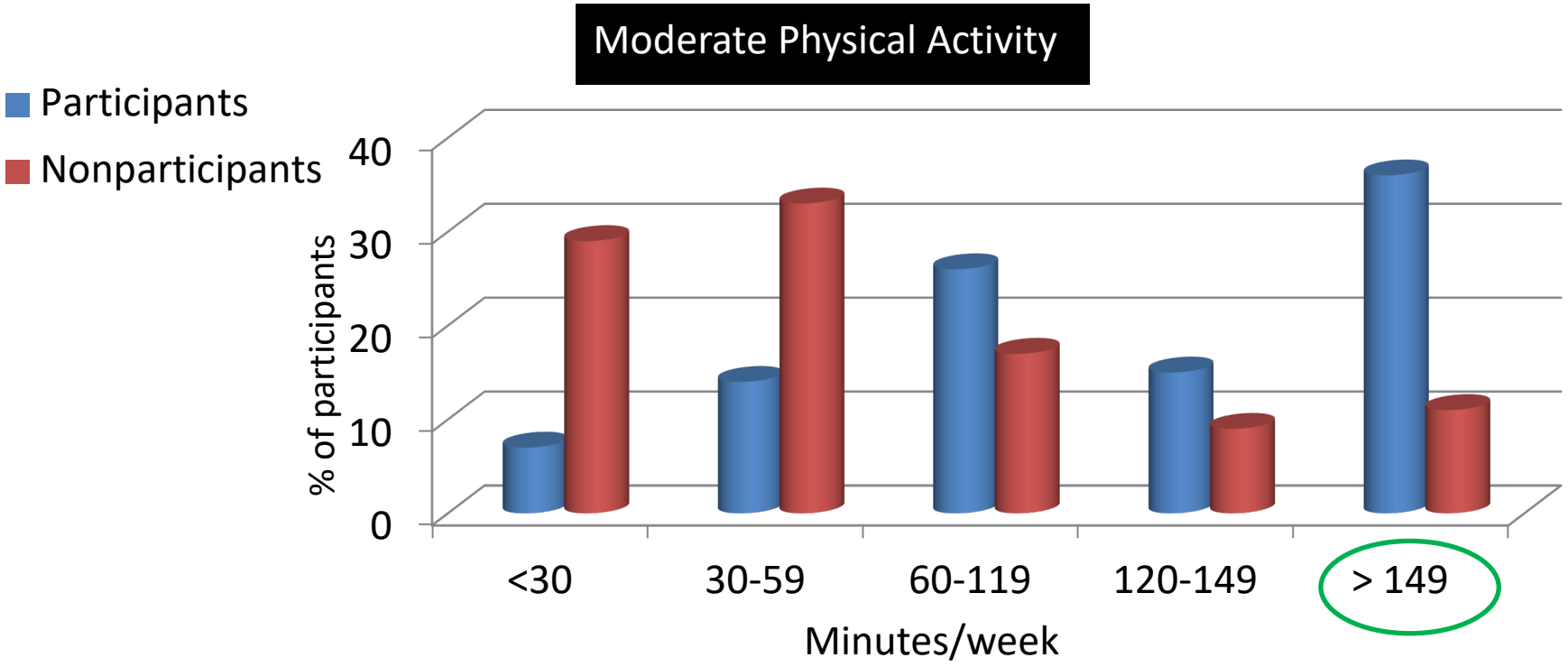
Physical Activity, QOL and BO

- 1060 trainees invited:12 week, physical activity program
  - Baseline and 3-month assessments of PA, QOL, and BO
- 628 complete BL survey
  - 31% met HHS physical activity recommendations
  - Median QOL: 70 (1-100)
  - BO: 29%

- 23% enrolled in physical activity program
  - Baseline characteristics similar between participant and non participants

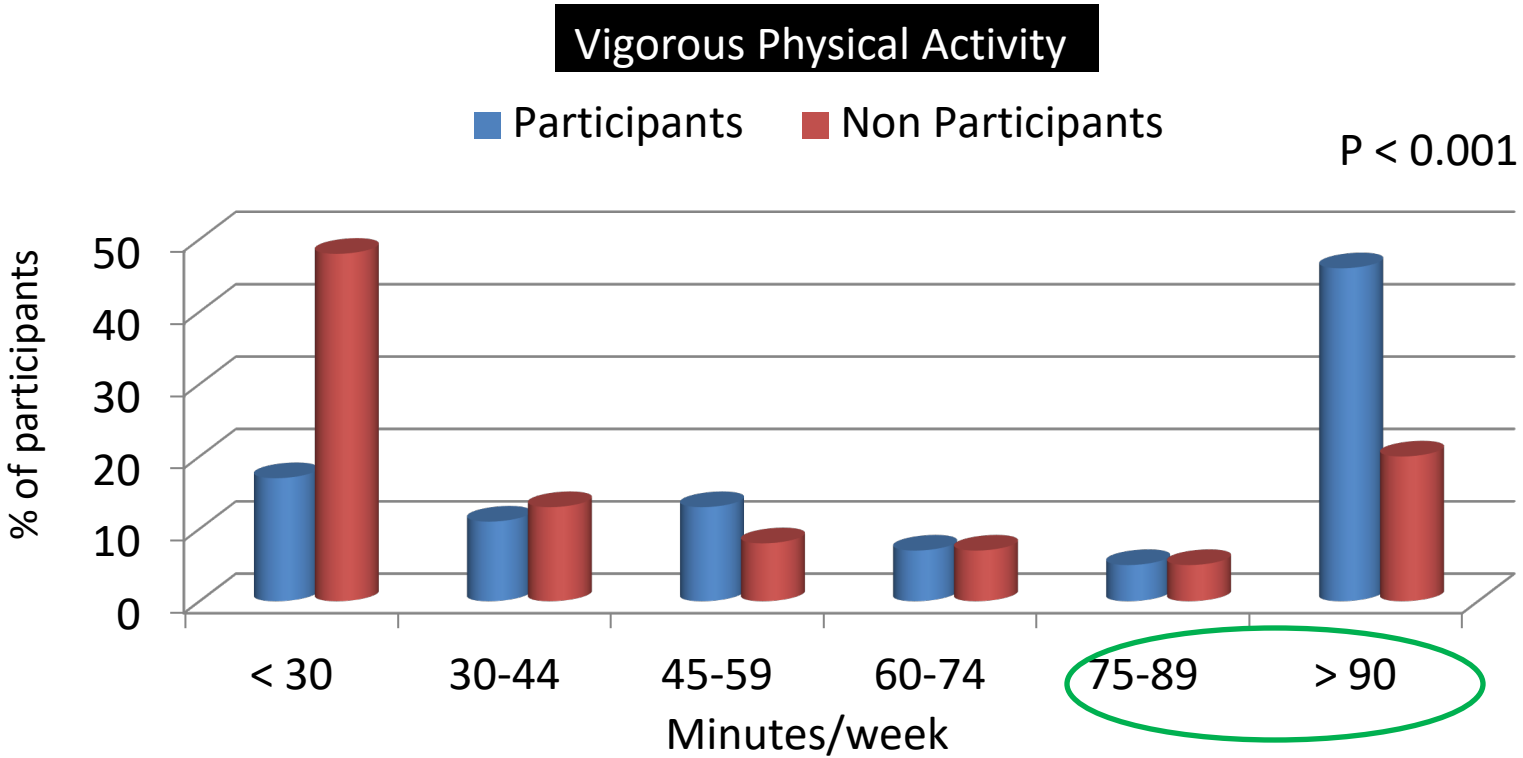
Weight CJ, Mayo Clinic Proc 2013:88(12):1435-1442

Physical Activity Results



Weight CJ, Mayo Clinic Proc 2013:88(12):1435-1442

Physical Activity Results



Weight CJ, Mayo Clinic Proc 2013:88(12):1435-1442

Physical Activity, BO and QOL
Impact of 12 week exercise program

	Outcome		P value
	Participants (N=174)	**Non participants (N=358)**	
Met HHS Recommendations	48%	23%	<0.001
QOL (1-100)	75 (63-85)	68 (44-80)	< 0.001
Burnout Prevalence	24%	29%	0.17

Weight CJ, Mayo Clinic Proc 2013:88(12):1435-1442

MD and Patient Satisfaction

- **SETTINGS:** 11 general internal medicine practices in Boston
- **PARTICIPANTS**: Random sample 2,620 patients and 166 MDs
- **RESULTS:**
- MDs ***very or extremely satisfied with work*** had ***higher patient satisfaction scores***
- Younger patients, those with better overall health status, and those cared for by a ***physician who worked part-time*** significantly *more likely* to report better satisfaction measures

Haas J, J GEN INTERN MED 2000;15:122–128.

Impact of Sleep on Wellness

- PROMIS Sleep Disturbance scale
  - 213 clinicians and trainees
- Sleep disturbances associated with:
  - Less mindfulness, self-compassion, physical and mental health
  - Strongly correlated with perceived stress

J Altern Complement Med. 2015;21:496-503

Wellness Promotion

Personal Approaches

- Recognize BO
- Prioritize work life balance
- Adopt healthy behaviors
  - Exercise, Nutrition, Sleep
- Engage in recreation
- Practice mindfulness
- Find meaning in life

Personal **Organizational**

Impact of Interventions on Burnout, Wellbeing and Patient Care

- Facilitated interventions improve short-term and sustained improvements in well-being, attitudes associated with patient-centered care, meaning and engagement in work and reduce BO
  - Physician discussion, mindfulness, meditation, reflection, shared experience
    - West CP, et al. JAMA Intern Med. 2014;174(4):527-533
    - Krasner MS, et al. JAMA 2009;302:1284-1293
- Individual and organizational strategies result in clinically meaningful reductions in burnout
- Organizational interventions more effective than individual-focused ones
    - West CP, et al. Lancet 2016;388:2272-228

Steps to Prevent Burnout & Improve Wellness

- Cultivate a community
- Establish wellness as a quality metric
  - Mini-Z Burnout survey; MBI; Mayo Clinic Well-being index
- Identify high-opportunity work units
  - Lowest-scoring work units on metric
- Engage units to identify factors to improve satisfaction
- Scorecard for leadership
  - Goal: > 50% of work units improve within 12 months

Organizational Actions to Promote MD Well-Being

- **Acknowledge and Assess Problem**
- **Harness Power of Good Leadership**
  - Each 1-point increase in leadership score of MDs immediate supervisor associated with 3.3% decrease in BO and 9% increase in satisfaction
  - Leaders must recognize unique talents of individual MDs
  - MDs who spend 20% of professional effort on meaningful work have dramatically lower burnout
    - Each 1% reduction below 20% increases burnout
    - Ceiling effect at 20%

Mayo Clin Proc. January 2017;92(1):129-146

Organizational Actions to Promote MD Well-Being

- **Align Values and Strengthen Culture**
  - Ensure organization and MDs work toward common goal
  - Leaders request candid feedback on areas for improvement
  - Create enduring document that articulates foundational principles
- **Promote Flexibility and Work-Life Integration**
  - Work less than full time
  - Flexibility in work hours and how work is done (virtual visits, SMA)
- **Provide Resources to Promote Resilience and Self-care**

Mayo Clin Proc. January 2017;92(1):129-146

Gender Considerations

- Female MDs have more female patients than male MDs
- Patient expectations differ between female and male MDs
- Female patients tend to seek empathic listening and longer visits, especially with female physicians
- Female MDs not provided more time for female patients
- Gender differences in patients and expectations of female MDs may contribute to burnout among female MDs and part-time work to reduce stress in their work lives.
- Consider increasing visit time, staff awareness, adjusting for patient gender in compensation plans

Linzer M, J Gen Intern Med 2018; 33:963–5

Impact of Scribe on Satisfaction

	Pre-Scribe Mean Score*	Pre-Scribe n = 44	Post-Scribe Mean Score*	Post-Scribe n = 41	P Value
Satisfied with role in clinic (Agree, Agree Strongly)	3.68 ± 0.49	30 (68.1%)	4.26 ± 0.43	37 (90.2%)	0.008
Great deal of stress because of my job (Agree, Agree Strongly)	3.97 ± 0.62	29 (65.9%)	3.30 ± 0.17	21 (51.2%)	0.215
Control over workload (Poor, Marginal)	2.18 ± 0.21	25 (56.8%)	3.08 ± 0.54	15 (40.9%)	0.078
Time for documentation (Poor, Marginal)	1.61 ± 0.37	33 (75.0%)	3.24 ± 0.49	10 (24.4%)	<0.0001
Work atmosphere description (Very busy, Hectic, Chaotic)	3.90 ± 0.43	26 (59.1%)	3.36 ± 0.29	17 (41.5%)	0.131
Ability to listen to patients (Agree, Agree Strongly)	3.47 ± 0.30	30 (68.1%)	4.09 ± 0.10	35 (85.4%)	0.043
Ability to provide high-quality care (Agree, Agree Strongly)	3.75 ± 0.18	31 (70.5%)	4.10 ± 0.25	37 (90.2%)	0.022
Ability to spend necessary time with patients (Agree, Agree Strongly)	2.9 ± 0.52	20 (45.5%)	3.71 ± 0.31	24 (58.5%)	0.191
Amount of time spent on EMR at home (Excessive, Moderately High)	3.07 ± 1.25	28 (63.6%)	3.24 ± 0.42	13 (31.7%)	0.003
Value Scribe (Agree, Agree Strongly)			4.65 ± 0.29	37 (90.2%)	

Martel ML, et al. Jt Comm K Qual Patient Saf 2018;44:238-249

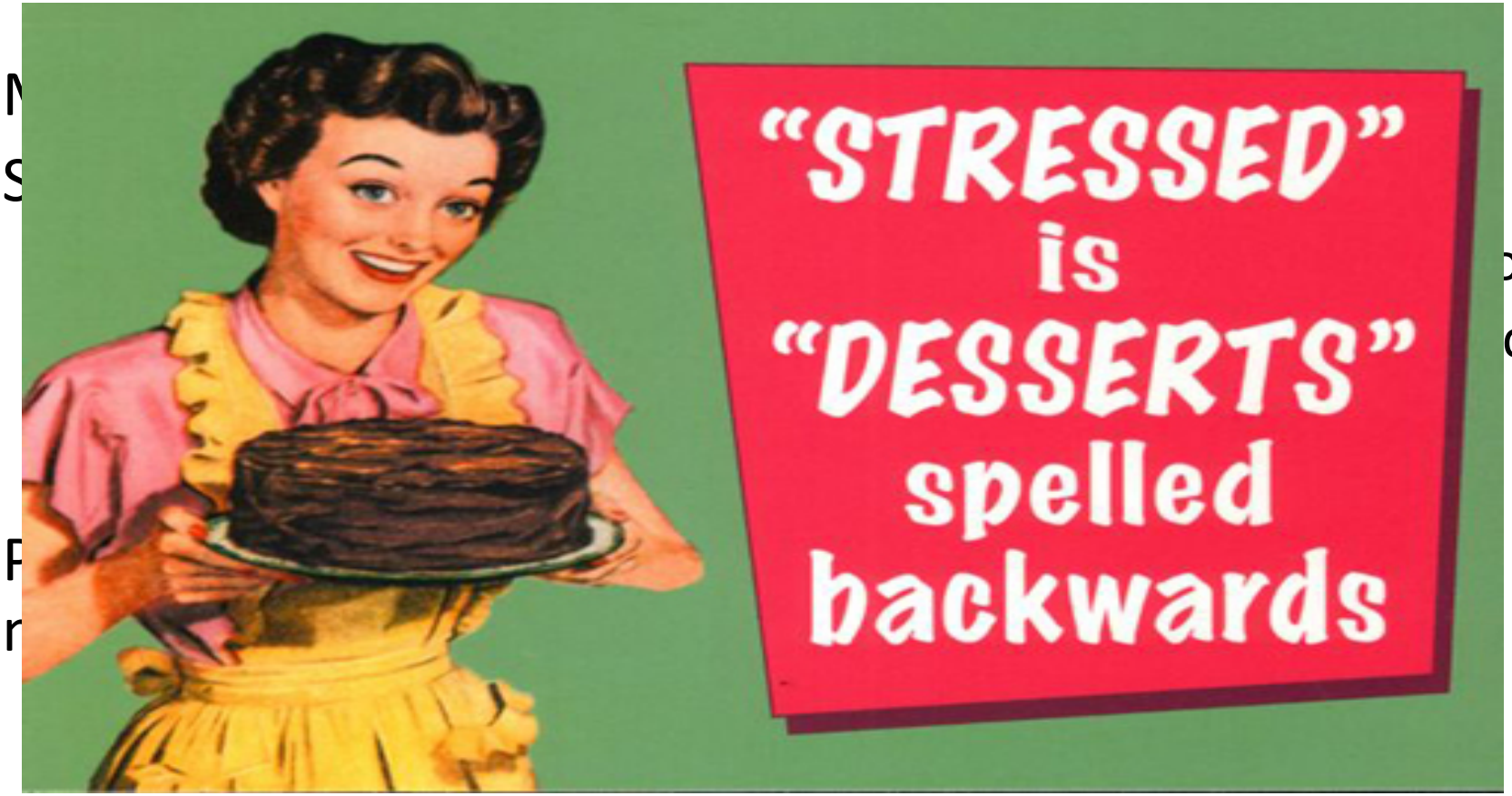
Conclusions

- N
- S

on

d

- P
r



Resources

- AMA
  - https://www.stepsforward.org
- National Academy of Medicine
  - NAM.edu
- ACP
  - https://www.acponline.org/gsearch/burnout