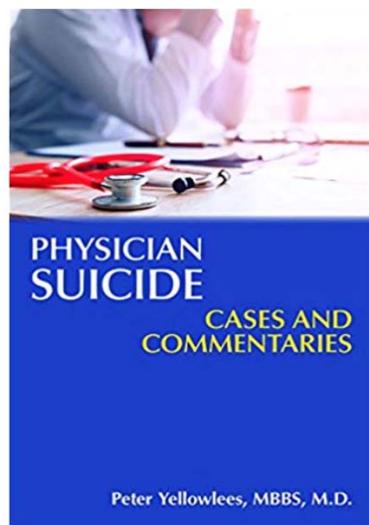
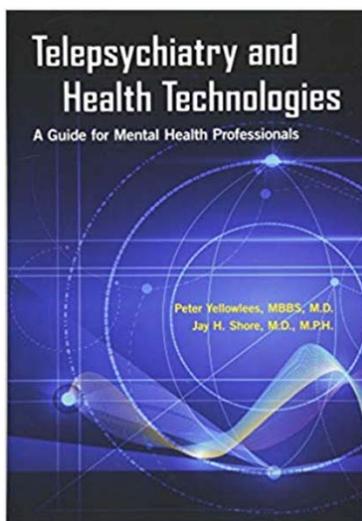


TELEMEDICINE

Improving Physician Health

Peter Yellowlees MD
UC Davis

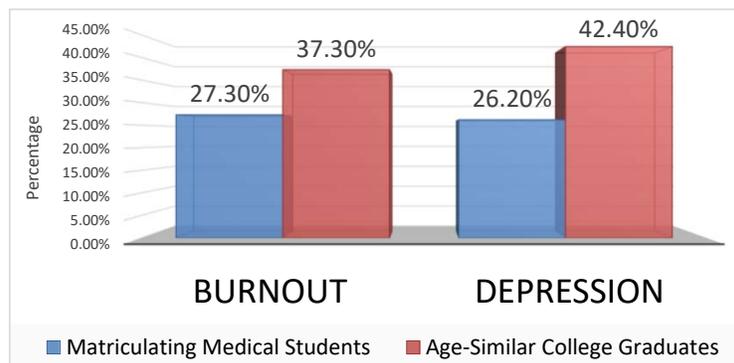


OBJECTIVE

Understand:

How telemedicine and clinical health technologies can reduce physician burnout and improve clinical efficiency and patient safety

FUTURE PHYSICIANS have excellent mental health...before training begins



Brazeau, C. M., Shanafelt, T., Durning, S. J., Massie, F. S., Eacker, A., Moutier, C., ... & Dyrbye, L. N. (2014). Distress among matriculating medical students relative to the general population. *Academic Medicine*, 89(11), 1520-1525.



- **400** physicians suicide each year
- Female physician suicides x2 gen population
- Over **50%** of US physicians experience some sign of burnout
- **80%** of burnout is related to organizational factors.

Burnout Among Health Care Professionals:
A Call to Explore and Address This Underrecognized Threat to Safe, High-Quality Care
A National Academy of Medicine Discussion Paper

Between 2011 and 2014, the prevalence of burnout increased by

9%

among **PHYSICIANS**

while remaining stable in other U.S. workers.
(Shanafelt et al. 2015)

Suicide rates among female physicians are

130%

higher than that of other females in the population.
(Gentile et al. 2008)

Suicide rates among male physicians are

40%

higher than that of other males in the population.
(Gentile et al. 2008)

In a study of 1,171 registered in-patient nurses,

18%

had depression versus a national prevalence of approximately 9%.
(Savaris et al. 2012)

Burnout is nearly

2 TIMES

as prevalent among physicians as U.S. workers in other fields after controlling for work hours and other factors.
(Shanafelt et al. 2012)

35% of hospital nurses have a high degree of emotional exhaustion.
(Shanafelt et al. 2011)

Read more and download the full discussion paper:
nam.edu/Perspectives

“ Health care professional burnout represents real suffering among people dedicated to preventing and relieving the suffering of others. The high prevalence of burnout among health care professionals is cause for concern because it appears to be affecting quality, safety, and health care system performance. Efforts are needed to address this growing problem. ”
-Dyrbye et al., 2017

#ClinicianWellBeing

Health Issues in MD's

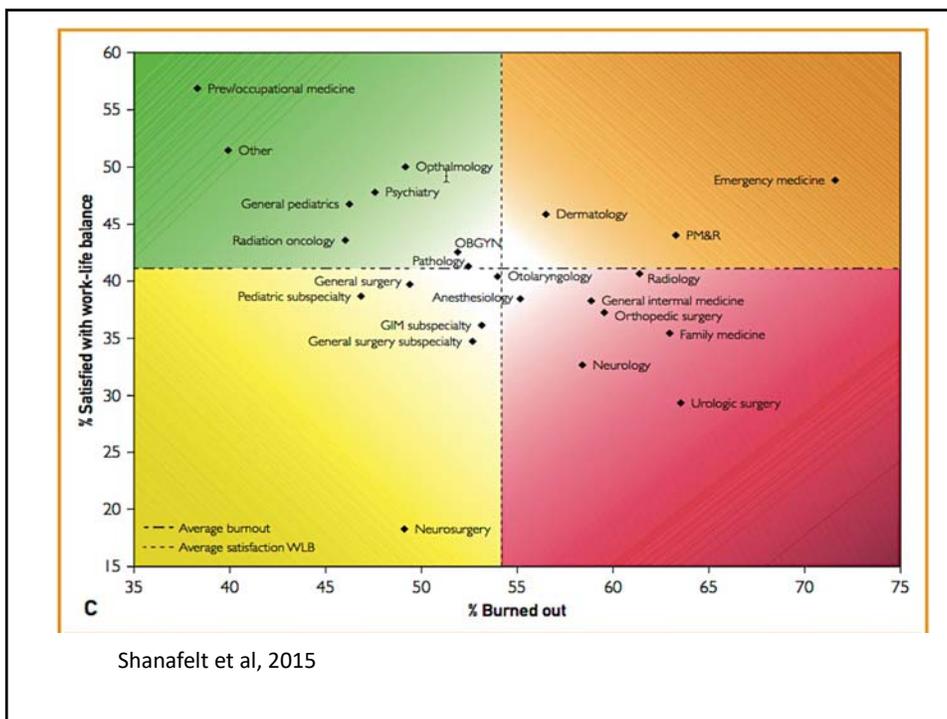
- Burnout
- Disruptive Behavior
- Aging
- Psychiatric disorders
- Substance use disorders



What is burnout?



- Emotional Depletion
- Detachment and Cynicism
- Sense of low Personal Achievement



Burnout Drivers vs Effects

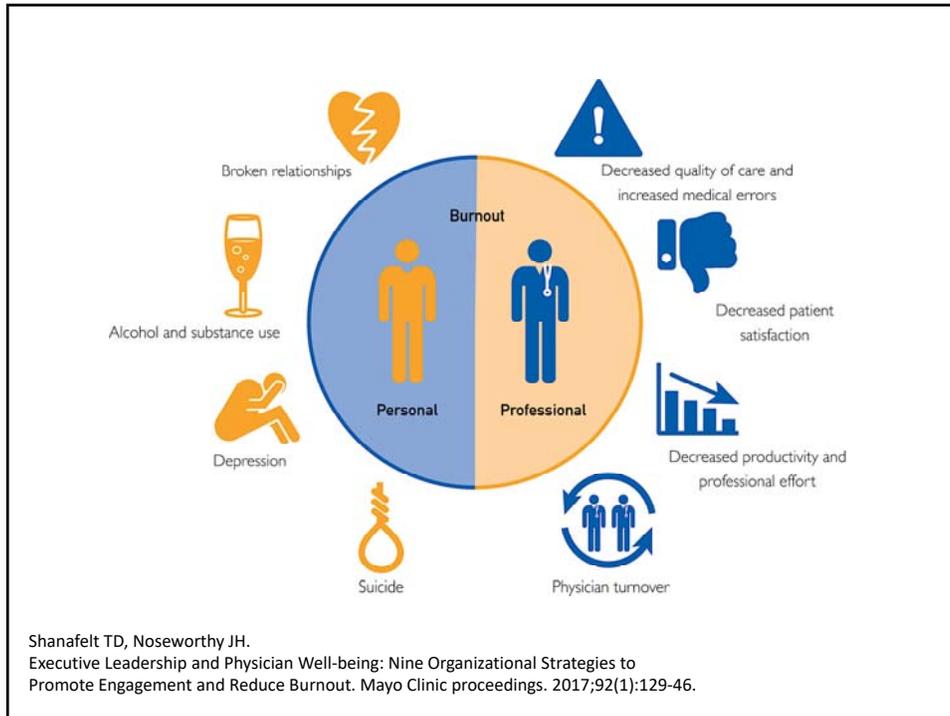
Drivers:

- high workloads
- workflow inefficiencies
- increased time spent in documentation

Effects:

- loss of meaning in work
- social isolation at work
- cultural shift from health values to corporate values

Repercussions at a **personal** and **professional** level



GOAL

- Achieve the Quadruple Aim, with the fourth aim being clinician well-being.
- Create a practice environment using health technologies that supports improved, practice efficiency and meaning.
- In return, a more engaged, satisfied workforce will provide **better, safer, more compassionate** care to patients.

12

Everyone blames the EMR



"I hear there's a new ICD-10 code for carpal tunnel syndrome caused by clicking too many times in an EMR system."

But were paper charts any better?

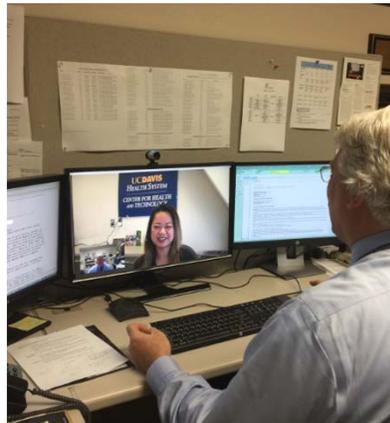


More Effective EMRs

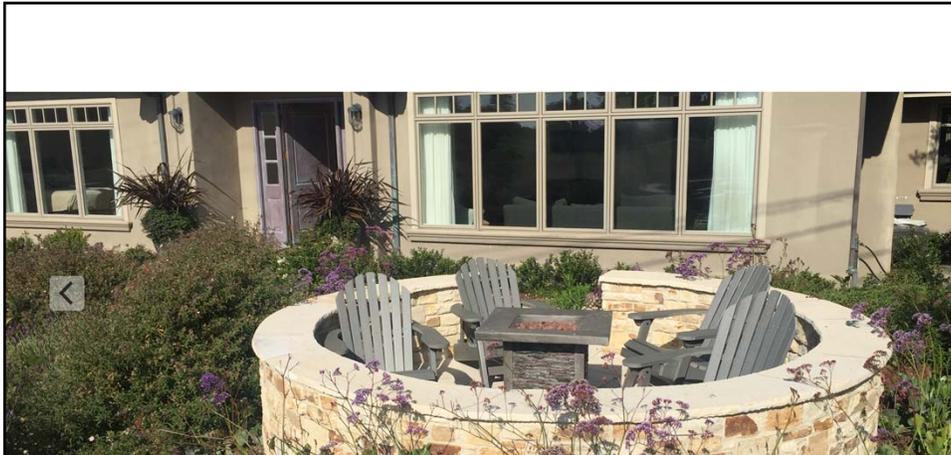


- Redesigned workflows
- Improve documentation – avoid redundancy, short cuts, templates, dot.phrases, dictation software, scribes, smart devices
- Reduced documentation
- Improved physician/provider education – PEP at UCD – individualized and routine
- Easier to complete notes using telemedicine – synchronous and asynchronous

Telemedicine Advantages for Provider



- **Time Savings**
- **Cost Savings**
- Increased **Variety**
- Improved **Safety and Teamwork**
- **Flexibility**, Independence, and Autonomy
- Better **Work-Life Balance**



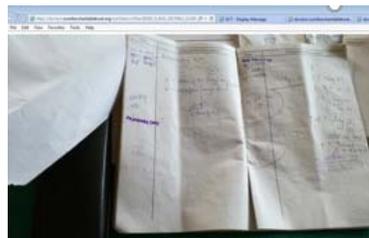
Flexibility,
Independence,
Autonomy

- Practice from **any location**
- **Wellness, safety** and **work-life balance**

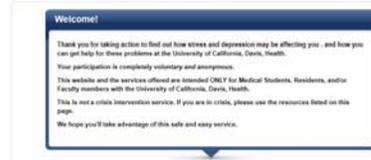
Better Ways of Working – asynchronous and mobile consults



More teamwork, education, self-assessment and collaboration



UC DAVIS
HEALTH



Three Domains of the WellMD Fulfillment Model

Culture of Wellness: Shared values, behaviors, and leadership qualities that prioritize personal and professional growth, community, and compassion for self and others.

Efficiency of Practice: Workplace systems, processes, and practices that promote safety, quality, effectiveness, positive patient and colleague interactions, and work-life balance.

Personal Resilience: Individual skills, behaviors, and attitudes that contribute to physical, emotional, and professional well-being



©2016 Stanford Medicine

Need for a Systematic Framework



Problem:

- No consistent method to evaluate technology's impact on physician well-being
- Important issues are often overlooked

Solution:

- University of California Technology Wellness Index (UCTWI)
- A fast, easy, and consistent method
- Simple 8-point scale

UC Technology Wellness Index Simple 8-point scoring

CATEGORY	SUBCATEGORY	SCORE
Efficiency of Practice	Efficiency: Does the technology improve the physician's overall efficiency in clinical and non-clinical work?	0 - 1
	Clinical Productivity: Does the technology allow the physician to spend more time on direct patient care?	0 - 1
Meaning	Patient Engagement: Does the technology increase the quality of patient engagement with the physician?	0 - 1
	Case Mix: Does the technology enable the physician to have more control over the case mix of their patient panel?	0 - 1
	Teamwork: Does the technology create a more collaborative work environment?	0 - 1
Lifestyle	Time and Work-Life Balance: Does the physician have more time to spend outside of work?	0 - 1
	Independence: Does the technology increase independence, schedule flexibility and autonomy for the physician?	0 - 1
	Financial: Does the technology increase the physician's income?	0 - 1
UCTWI Score		0 - 8

Case 1: Synchronous Telepsychiatry

CATEGORY	SUBCATEGORY	SCORE
Efficiency of Practice	Efficiency: Does the technology affect the physician's overall efficiency in clinical and non-clinical work?	1
	Clinical Productivity: Does the technology allow the physician to spend less time on non-clinical work?	0
Meaning	Patient Engagement: Does this increase/decrease the proportion of time and the ease that the physician spends engaging with patients?	1
	Case Mix: Does the technology enable the physician to have more control over the case mix across their patient panel?	1
	Teamwork: Does the technology create a more collaborative work environment?	1
Lifestyle	Time: Does the technology free up physician time away from work?	0
	Independence: Does the technology increase independence, schedule flexibility and autonomy for the physician?	1
	Financial: Does this affect the physician's income?	0
UCTWI Score		5

Case 2: Asynchronous Telepsychiatry

CATEGORY	SUBCATEGORY	SCORE
Efficiency of Practice	Efficiency: Does the technology affect the physician's overall efficiency in clinical and non-clinical work?	1
	Clinical Productivity: Does the technology allow the physician to spend less time on non-clinical work?	1
Meaning	Patient Engagement: Does this increase/decrease the proportion of time and the ease that the physician spends engaging with patients?	0
	Case Mix: Does the technology enable the physician to have more control over the case mix across their patient panel?	1
	Teamwork: Does the technology create a more collaborative work environment?	1
Lifestyle	Time: Does the technology free up physician time away from work?	1
	Independence: Does the technology increase independence, schedule flexibility and autonomy for the physician?	1
	Financial: Does this affect the physician's income?	1
UCTWI Score		7

Augmented Information to help clinicians

- Open Records
- Artificial intelligence (the other AI) and predictive assessments—big data analytics on the fly—genomics/phenomics
- Automated data capture – multiple data sources for decision support including video
- Increasing mobile care and monitoring
- Virtual Reality and Avatar driven clinicians
- Algorithmic screening and social network interactions and monitoring
- Facial, voice and movement recognition
- And many more.....

