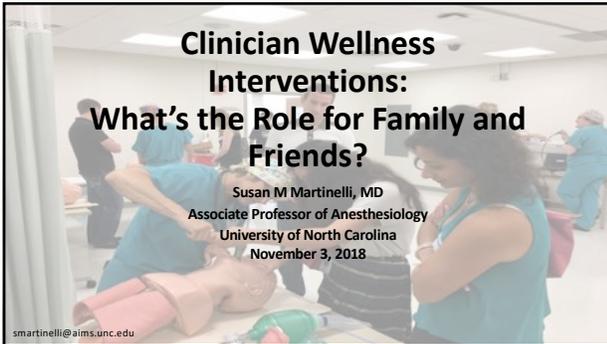


Clinician Wellness Interventions: What's the Role for Family and Friends?



Financial Disclosure

I do not have any relevant financial relationships with commercial interests that pertain to the content of the presentation

Objectives

- Discuss the prevalence of burnout in physicians
- Illustrate the effects of burnout
- Describe an intervention involving family & friends

What is Burnout?

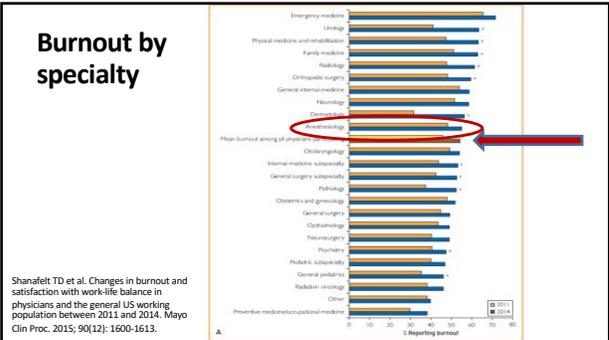
1. Emotional exhaustion
2. Depersonalization
3. Lack of personal accomplishment

Maslach C, Jackson S, Leiter M. Maslach Burnout Inventory Manual. (3rd Ed) Consulting Psychologists Press, Palo Alto, CA (1996).

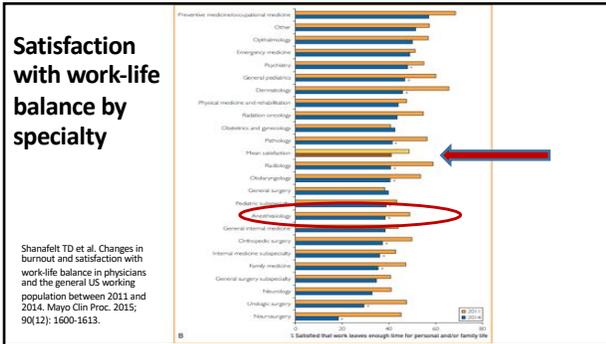
Burnout on the Rise: Physicians

	2011	2014
Burnout	45.5%	54.4%
Satisfaction with work life balance	48.5%	40.9%
Depression symptoms	38.2%	39.8%
Suicidal ideation	6.4%	6.4%

Shanafelt TD et al. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. Mayo Clin Proc. 2015; 90(12): 1600-1613.



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Anesthesiology Residents

- High burnout risk
 - 41%
 - Risk factors
 - Working >70 hrs/wk
 - >5 drinks/wk
 - Female
- Positive depression screening
 - 22%
 - Risk factors
 - Working >70 hrs/wk
 - Smoking
 - >5 drinks/wk
 - Female

De Oliveira et al. The prevalence of burnout and depression and their association with adherence to safety and practice standards: a survey of United States Anesthesiology Trainees. Anesth Analg 2013; 117: 182-93.

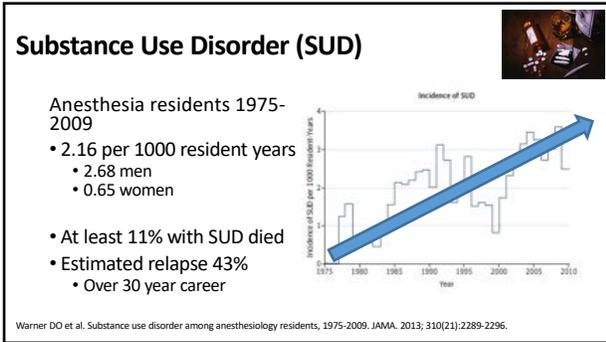
Why is this important?

- Patient safety
- Substance abuse
- Physician suicide
- Financial implications
- Mandates

Patient Safety

- Internal medicine residents^{1,2,3}
 - ↑burnout
 - ↑self perceived medical errors
- Pediatric residents⁴
 - ↑depression
 - ↑medication errors
- Anesthesia residents⁵
 - ↑burnout and depression
 - ↓best practice scores
 - ↑medication errors
- Surgeons⁶
 - ↑burnout
 - ↑medical errors

- West CP et al. Association of resident fatigue and distress with perceived medical errors. JAMA. 2009; 302(12): 1294-1300.
- Shanafelt TD et al. Burnout and self-reported patient care in an internal medicine residency program. Ann Intern Med. 2002; 136:358-367.
- West CP. Association of perceived medical errors with resident distress and empathy. JAMA. 2006; 296:1071-1078.
- Fahrenkopf AM et al. Rates of medication errors among depressed and burnt out residents: prospective cohort study. BMJ 2008; 336(7642): 488-91.
- De Oliveira et al. The prevalence of burnout and depression and their association with adherence to safety and practice standards: a survey of United States Anesthesiology Trainees. Anesth Analg 2013; 117: 182-93.
- Shanafelt TD et al. Burnout and medical errors among American surgeons. Ann Surg. 2010;251: 995-1000.



Physician suicide rates

- 300-400 physician suicides annually¹
- Rates compared to general population^{1,2}
 - Men 1-1.5
 - Women 2-4
- Little social support^{1,3}

I'm not as okay as I pretend to be.

- Eckleberry-Hunt J and Lick D. Physician depression and suicide: a shared responsibility. Teach Learn Med. 2015; 27(3):341-5.
- Schernhammer ES and Colditz GA. Suicide rates among physicians: a quantitative and gender assessment. Am J Psychiatry. 2004; 161:2295-2302.
- Crawshaw R et al. An epidemic of suicide among physicians on probation. JAMA. 1980; 243(19):1915-17.

Clinician Wellness Interventions: What's the Role for Family and Friends?

Financial Implications



- Burnout
 - ↑physician turnover
 - Cost to replace physician \$500,000-\$1million
 - ↓productivity
 - ↑medical errors

Shanafelt T et al. The business case for investing in physician well-being. JAMA Intern Med. 2017; 177(12):1826-1832.



Mandates



- ACGME
 - Core program requirements: Wellbeing
- Anesthesiology Milestones
 - Professionalism 5: Responsibility to maintain personal, emotional, physical, and mental health



So what is the role for family and friends?

Psychological Well-Being

- Social relatedness
- Building of competence
- Autonomy

Associated with resident well-being

Raj KS. Well-being in residency: A systematic review. J Grad Med Educ 2016;8:674-84

Family & friends understanding of work related stress ↑ resident well-being

Hard for residents to communicate about their work with non medical people

Rappaport WD, Putnam CW, Witzke D, Amil B. Helping residents' families cope. Acad Med 1992;67:761
Bell M a, Smith PS, Brokaw JJ, Cushing HE. A Family Day program enhances knowledge about medical school culture and necessary supports. BMC Med Educ 2004;4:3.
Law M, Lam M, Wu D, Veinot P, Mylopoulos M. Changes in Personal Relationships During Residency and Their Effects on Resident Wellness. Acad Med 2017;XX:1.

Adverse Events and Errors

- Adverse events¹
 - **72%** of anesthesiologists sought support from spouse, family & friends
 - **88%** felt that it would be helpful to talk to their own spouse/family
- Perceived errors²
 - **65%** residents discuss with close family and friends

1. Gazoni FM et al. The impact of perioperative catastrophes on anesthesiologists. Anesth Analg. 2012; 114:596-603.
2. West CP et al. Association of perceived medical errors with resident distress and empathy. JAMA. 2006; 296:1071-1078.

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Academic Anesthesiology Chairs

- ↓ job satisfaction and ↓ spousal support
 - Independent predictors of burnout
- ↓ Spousal/support person support
 - 5.2x higher risk of burnout

De Oliveira GS et al. High incidence of burnout in academic chairpersons of anesthesiology. Anesthesiology. 2011. Jan; 144(1):181-93.

Aviation industry



- Pilot's ability to cope with stress
 - Stable home life
 - Good relationship with spouse
- Spouses included in training seminar
 - Well-received
 - Better able to understand and support pilot

Sloan SJ, Cooper CL. Stress coping strategies in commercial airline pilots. J Occup Med 1986;28:49-52.
Karlin M, Koh F, McCully L. The spousal factor in pilot stress. Aviat Space Environ Med 1989;November:1112-5.

What we are doing at UNC

Family Anesthesia Experience

Martinelli SM, et al. (March 02, 2018) The Use of Simulation to Improve Family Understanding and Support of Anesthesia Providers. Cureus 10(3): e2262

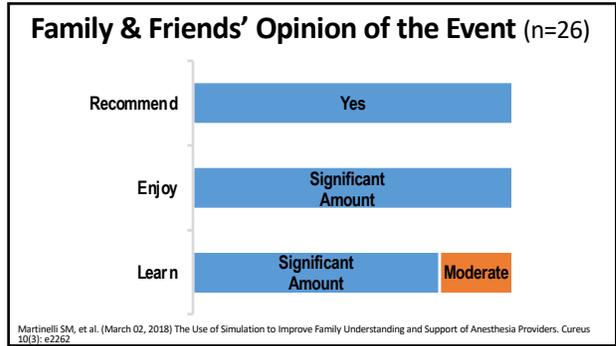
Adult Track: Station 1

- Epidurals
- Central Lines
- Nerve Blocks

Adult Track: Station 2

Operating Room Experience

Clinician Wellness Interventions: What's the Role for Family and Friends?



Anesthesia Providers' Appraisal of the Event

Question	Answer	No. (%)
How much did you enjoy participating in this event?	A significant amount	19 (82.6)
	A moderate amount	3 (13.0)
	A minimal amount	1 (4.3)
	Not at all	0 (0)
How much, if at all, do you think your family member or friend's participation in this event will help to improve your overall wellbeing ?	A significant amount	8 (32.0)
	A moderate amount	11 (44.0)
	A minimal amount	5 (20.0)
	Not at all	0 (0)
	I don't know	1 (4.0)
After this event, how much, if at all, do you think this person understands the stresses involved in practicing anesthesia?	Completely	2 (14.3)
	Mostly	9 (64.3)
	A little	3 (21.4)
	Not at all	0 (0)
After this event, it will be easier for me to communicate my work-related issues with this person.	Strongly agree	4 (28.6)
	Somewhat agree	8 (57.1)
	Neither agree nor disagree	2 (14.3)
	Somewhat disagree	0 (0)
	Strongly disagree	0 (0)

Martinelli SM, et al. (March 02, 2018) The Use of Simulation to Improve Family Understanding and Support of Anesthesia Providers. Curesus 10(3): e2262

Change in family member and friend participants' perceived understanding of anesthesia providers' work

I understand...	P value
...what a typical day in the life of an anesthesia provider is like.	<.0001
...what anesthesia providers do in the operating room.	.0002
...how an intubation is performed.	<.0001
...the demands of an anesthesiology provider outside of the operating room.	.0023
...that it is common for anesthesia providers to work late.	.0313
...that anesthesia providers have to deal with many unexpected situations on the fly.	.0039
...how to support my loved one/friend who is an anesthesia provider.	.0039

Martinelli SM, et al. (March 02, 2018) The Use of Simulation to Improve Family Understanding and Support of Anesthesia Providers. Curesus 10(3): e2262

CA-1 Anesthesia Family & Friends Experience

- Day in the Life Video
- Wellness & Burnout
- Substance Abuse
- Financial Wellness
- UNC Resources
- Resident & Family Panel
- Simulation Experience

CA-1 Family Experience

Simulated Perioperative Experience: Airway

- Bag mask ventilation
- Direct laryngoscopy/LMA
- Advanced airway devices

Simulated Perioperative Experience: Task Trainers

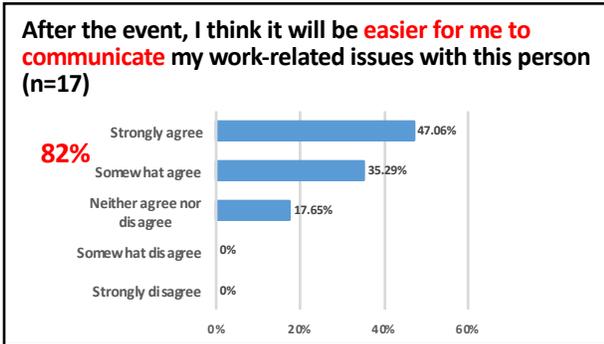
- Central venous lines
- Peripheral nerve blocks
- Neuraxial blocks

Didactics

- Introduction (5 minutes)
- Day in the life video (10 minutes)
- Burnout (7 minutes)
- Substance Abuse (40 min)
- University and Departmental Wellness Resources (8 minutes)
- Simulation (95 minutes)
- Financial Wellness— (30 minute)
- Panel of residents/family members (45-60 minutes, moderated by faculty member)

Simulated Perioperative Experience: High Fidelity Scenario

Clinician Wellness Interventions: What's the Role for Family and Friends?



I understand...(n=33)	P value
what a typical day is like.	<.0001
what residents do in the OR.	<.0001
how to intubate.	<.0001
the demands outside of the OR.	<.0001
that it is common for residents to work late.	0.0010
that work is unpredictable.	0.0002

I know how to...(n=33)	P value
support my resident.	0.0002
reach out to the anesthesiology department for help.	<.0001
access university resources for help.	<.0001

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