

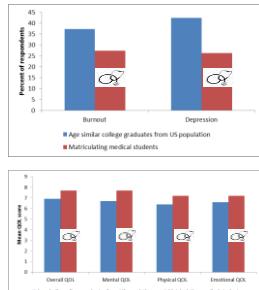


BURNOUT
45-56%

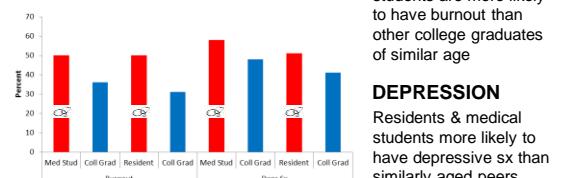
DEPRESSION
28-32%

Medical Students
Residents

Dybøe et al JAMA, 2018;320(11):1114
Rotenstein JAMA 2016; Mata et al. JAMA 314(22): 2373-2383; Dybøe et al. Med Educ 50(1): 132-149.



Brazeau et al. Acad Med 89(11): 1520-1525



Dybøe et al Acad Med 89(3): 443-451; Rotenstein JAMA 2016; Mata et al. JAMA 314(22): 2373-2383; West et al. J Intern Med 283(6): 516-529; Dybøe et al. Med Educ 50(1): 132-149.

BURNOUT

Residents & medical students are more likely to have burnout than other college graduates of similar age

DEPRESSION

Residents & medical students more likely to have depressive sx than similarly aged peers

PROFESSIONALISM

Problems identifying and managing conflicts of interest
Inappropriate prescribing behaviors



PATIENT CARE

Multiple studies involving physicians in-training
Discharging patients to make service 'manageable'
Burnout contributes to lower quality of care and disparities in care

RACIAL BIAS

Explicit and implicit bias toward black patients

COMPETENCY

Lower in-training exam scores
Lower performance on simulation scenarios

MEDICAL ERROR

Burnout predicts medical error

PATIENT SATISFACTION

Not fully discussing options
Paying little attention to social or personal impact of illness

Dybøe et al. JAMA 304(11):1173-80, 2010; Dybøe Acad Med 90(4):485-493; Thomas JGIM 2007; Dybøe et al. Med Educ 50(1): 132-149.

Mayo Clinic | Property and trademark. Do not duplicate.

West JAMA 2011; 306: McConnell Acad Med 87; Dybøe et al. JAMA Network Open 2019;2(7); Sharafelt Ann IM 2002;138:358-367; West et al. J Intern Med 283(6): 516-529.

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ATTRITION

SERIOUS THOUGHTS OF DROPPING OUT
Burnout predicts students developing serious thoughts of dropping out of medical school

3 OUT OF EVERY 200
who matriculate drop out due to a nonacademic reason

About half of those who leave due so due to burnout or depressive symptoms

AAMC Data Snapshot: Dydyke et al Acad Med 2010;85; Clark JAMA 1988;260; Lu J Emerg Med 2019; 20; Khoushhal JAMA Surgery 2017;152

MORAL IMPERATIVE

Alcohol Use Disorder

National study >4000 medical students
Burnout independent predictor of ETOH abuse/dependence

Jackson et al. Acad Med 91(9): 1251

Longitudinal study
burnout predicted development of **suicidal ideation**, independent of symptoms of depression

Ann Intern Med 149: 334

Mass Obs. | Property of and confidential. Do not distribute

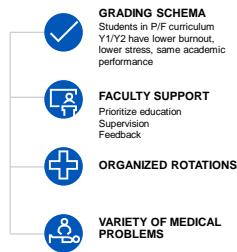
DRIVERS

Drivers are complex & multi-factorial

Many health care system aspects have to work together to mitigate burnout and improve professional well-being

Poor learning environment is poor is independent predictor of burnout

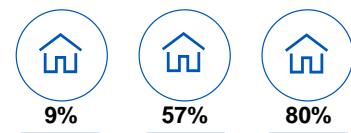
nam.edu/ClinicianWellBeingStudy; Dydyke et al. Med Educ 43:274



WORK & LEARNING ENVIRONMENT

2012 -2015, 1,276 IM interns from 54 U.S. residency programs

Karina et al. Acad Med ePub



Rates of **depression** among interns within a program relatively consistent across independent cohorts of interns

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MISTREATMENT

32%
Gender discrimination

17%
Racial discrimination

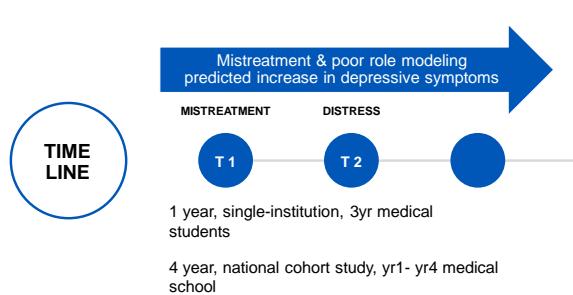
10%
Sexual harassment

↑Burnout & SI
>7400 surgical residents

Attending surgeons most frequent source of verbal/physical abuse & sexual harassment

Large variability in reported mistreatment by program

Yue-Yung Hu et al. N Engl J Med 381:18



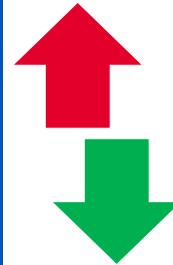


- ✓ Better teaching
- ✓ Explicit teaching about certain end-of-life topic
- ✓ Direct observation
- ✓ Reciprocal relationships
- ✓ Opportunities for learning



- ✓ Stressful relationships
- ✓ Little emotional support
- ✓ Not enough teaching
- ✓ Insufficient responsibility
- ✓ High attending demands
- ✓ Lack of timely feedback

Prins Med Educ 42:721; Attencello J Neurosurg 2018; Dyrbye Med Educ 50:132-149; Attencello J Neurosurg 2018; Verweij Adv Health Sci Educ 22



Neurology
ER
Ob Gyn
PMR
General surgery

General Pediatrics
Anesthesia
Pathology
ENT
Psychiatry



FACULTY WELL-BEING

- ✓ Address factors contributing to faculty burnout
- ✓ Align rewards & incentives w. educational goals

Moore et al. | Proprietary and Confidential. Do not distribute.

LEARNING LOAD

- Medical knowledge
- Expanded physician competencies
- More reading than can be completed
- Parallel Step 1 prep curriculum
- Add value to the health system
- Shortened curricular time

Lucey JAMA Intern Med 2013; 173;
Corson et al. Health Affairs 2011;30;
Gonzalez et al. Adv Health Sci Educ Theory Pract 2018; 23

EDUCATIONAL DEBT

Educational debt, \$US	OR
None	1
\$1-49,999	1.21
\$50,000-99,999	1.30
\$100,000-149,999	1.41
\$150,000-200,000	1.48
>\$200,000	1.72

15,000 Internal Medicine Residents

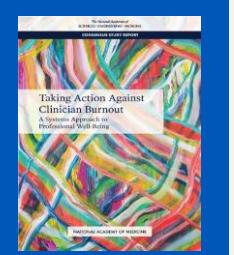
West JAMA 2011; 306(9); Ecklesberg Acad Med 84; Ratanawongsia Med Educ 41

Moore et al. | Proprietary and Confidential. Do not distribute.

PATHWAY FOR APPROACHING SYSTEM-LEVEL CHANGE TO SUPPORT CLINICIANS' AND TRAINEES' PROFESSIONAL WELL-BEING

CREATE POSITIVE WORK & LEARNING ENVIRONMENTS

"Those responsible for educating the next generation of physicians must commit to addressing **system-level factors** that hinder professional well-being and development of learners"



National Academies of Sciences, Engineering, and Medicine. (2019). Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, DC, The National Academies Press.

LEADERSHIP

Commitment from top leadership

1. Governing boards
2. Organizational leaders
3. C-suite level leader
4. Leaders at all levels

EDUCATION

- ✓ In charge of professional well-being of learners
- ✓ Resourced, empowered, & accountable
- ✓ Prioritize improving the learning environment & well-being of trainees

National Academies. (2018). Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6100000/>

HUMAN CENTERED DESIGN PROCESSES



RESOURCES



ACTION IS NEEDED

Doing so is vital for patients to receive compassionate care from committed, competent, and professional physicians

 @dyrbye
#AgainstClinicianBurnout