

# Advancing Health Equity through Well-Being and Inclusion



Yue-Yung Hu, MD, MPH

Associate Professor

Ann & Robert H. Lurie Children's Hospital

Northwestern University





# Disclosures

- Funders



Accreditation Council for  
Graduate Medical Education



AMERICAN COLLEGE OF SURGEONS  
*Inspiring Quality:  
Highest Standards, Better Outcomes*



Agency for Healthcare  
Research and Quality

K08 HS029532

- Collaborators



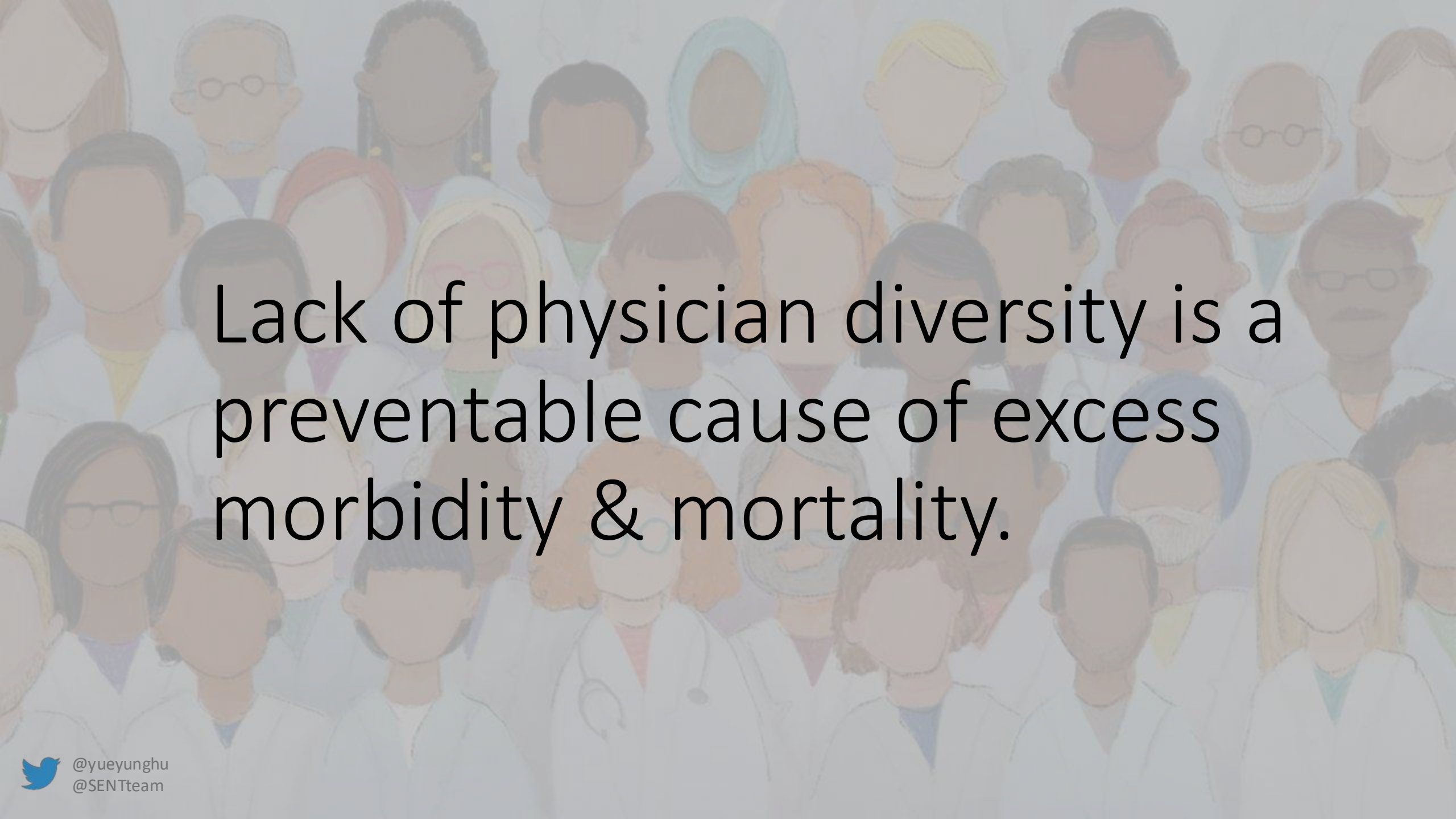
SOCIETY OF SURGICAL CHAIRS



*The* AMERICAN BOARD *of* SURGERY  
*Promoting surgical excellence since 1937*



@yueyunghu  
@SENTteam

A large, diverse group of healthcare professionals, including doctors and nurses, are shown from the chest up, wearing white coats. They have various ethnicities, ages, and hairstyles, representing a wide range of backgrounds. The image is slightly faded to serve as a background for the text.

Lack of physician diversity is a preventable cause of excess morbidity & mortality.







# Diversity Improves Access to Care for Underserved

**JAMA**

February 2014

## Minority Physicians Underserved Diversifying Be Key in Addressing

Lyndonna M. Marrast, MD<sup>1</sup>; Le

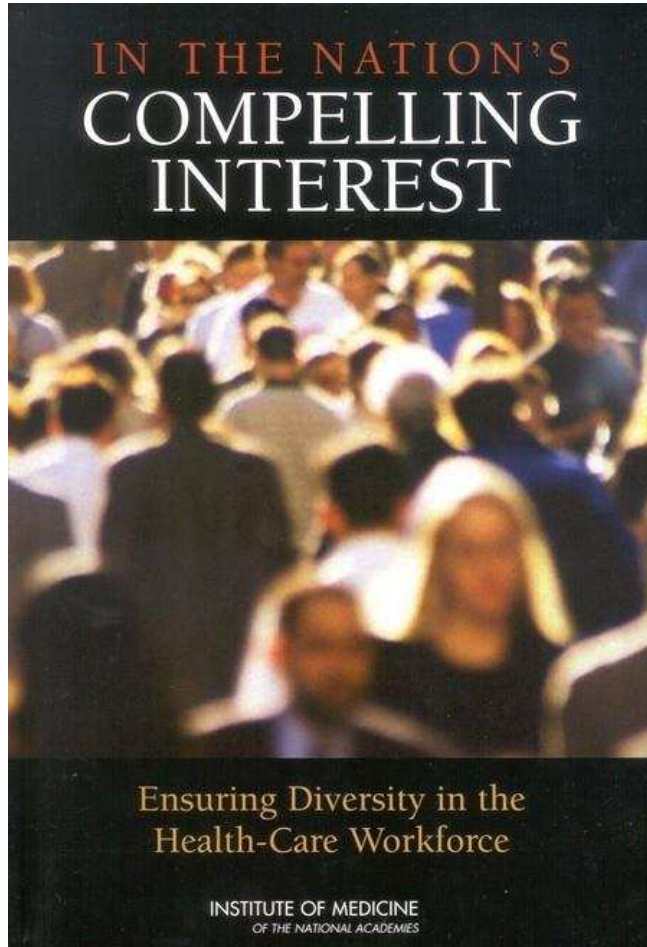
Patient Characteristic	No. (%)		Unadjusted Odds Ratio (95% CI) <sup>a</sup>	Millions of Patients With a Hispanic Physician, No. (%)	Unadjusted Odds Ratio (95% CI) <sup>b</sup>	Millions of Patients With an Asian Physician, No. (%)	Unadjusted Odds Ratio (95% CI) <sup>c</sup>
	Millions of Patients With a White Physician	Millions of Patients With a Black Physician					
All patients	62.2 (100.0)	3.3 (100.0)		5.9 (100.0)		9.8 (100.0)	
Non-Hispanic whites	53.2 (86.8)	1.1 (34.7)	1 [Reference]	2.4 (41.5)	1 [Reference]	5.2 (53.7)	1 [Reference]
Minorities	9.0 (13.2)	2.2 (65.3)	12.30 (8.30-18.00)	3.5 (58.5)	8.20 (5.98-11.23)	4.6 (46.3)	5.40 (4.16-6.99)
Black, non-Hispanic	4.1 (7.1)	1.9 (63.9)	23.24 (16.28-33.17)	0.5 (16.8)	2.65 (1.81-3.87)	1.0 (16.3)	2.56 (1.90-3.44)
Hispanic	3.1 (5.5)	0.1 (5.3)	0.96 (0.49-1.88)	2.7 (52.6)	19.04 (13.47-26.93)	1.1 (17.7)	3.68 (2.62-5.18)
Asian	0.9 (1.7)	0.1 (5.1)	3.06 (1.15-8.17)	0.3 (9.0)	5.63 (2.67-11.86)	2.3 (31.2)	25.73 (16.92-39.13)
Other	0.9 (1.7)	0.1 (7.4)	4.60 (1.78-11.94)	0.02 (1.1)	0.61 (0.17-2.15)	0.2 (3.8)	2.25 (1.19-4.25)
Income							
High/middle	48.9 (78.5)	2.1 (64.5)	1 [Reference]	3.9 (65.5)	1 [Reference]	7.0 (70.9)	1 [Reference]
Low	13.4 (21.5)	1.2 (35.5)	2.03 (1.46-2.75)	2.1 (34.5)	1.92 (1.44-2.55)	2.8 (29.1)	1.49 (1.23-1.81)
Medicaid							
None	54.8 (93.2)	2.5 (78.4)	1 [Reference]	4.4 (81.8)	1 [Reference]	7.9 (85.2)	1 [Reference]
Medicaid	4.0 (6.8)	0.7 (21.6)	3.75 (2.72-5.18)	1.0 (18.2)	3.04 (2.29-4.04)	1.4 (14.8)	2.38 (1.85-3.06)
Any health insurance	58.8 (94.3)	3.1 (95.2)	1 [Reference]	5.4 (90.1)	1 [Reference]	9.3 (94.0)	1 [Reference]
Uninsured	3.5 (5.7)	0.1 (4.8)	0.83 (0.49-1.41)	0.6 (9.9)	1.83 (1.30-2.57)	0.6 (6.0)	1.07 (0.78-1.47)
English home language	60.6 (97.3)	3.2 (96.8)	1 [Reference]	3.9 (66.7)	1 [Reference]	7.9 (80.4)	1 [Reference]
Non-English home language	1.7 (2.7)	0.1 (3.2)	1.18 (0.51-2.69)	2.1 (33.4)	17.83 (12.80-24.82)	1.9 (19.6)	8.69 (6.19-12.19)



@yueyunghu  
@SENTteam



# Patient-Provider Concordance Improves Care Processes



2004

ASA PAPER

## Ensuring Equity, Diversity, and Inclusion in Academic Surgery An American Surgical Association White Paper

Michaela A. West, MD, PhD, FACS,\* Shelley Hwang, MD, MPH, FACS,† Ronald V. Maier, MD, FACS,‡  
Nita Ahuja, MD, FACS,§ Peter Angelos, MD, PhD, FACS,¶ Barbara L. Bass, MD, FACS,||  
Karen J. Brasel, MD, FACS,\*\* Herbert Chen, MD, FACS,†† Kimberly A. Davis, MD, FACS,‡  
Timothy J. Eberlein, MD, FACS,‡‡ Yuman Fong, MD, FACS,§§ Caprice C. Greenberg, MD, MPH, FACS,¶¶  
Keith D. Lillemoe, MD, FACS,||| Mary C. McCarthy, MD, FACS,\*\*\* Fabrizio Michelassi, MD, FACS,†††  
Patricia J. Numann, MD, FACS,‡‡‡ Sareh Parangi, MD, FACS,||| Jorge D. Reyes, MD, FACS,‡  
Hilary A. Sanfey, MB, BCh, MHPE, FACS,§§§ Steven C. Stain, MD, FACS,¶¶¶  
Ronald J. Weigel, MD, PhD, FACS,||||| and Sherry M. Wren, MD, FACS\*\*\*\*

**Objective:** The leadership of the American Surgical Association (ASA) appointed a Task Force to objectively address issues related to equity, diversity, and inclusion with the discipline of academic surgery.

**Summary of Background Data:** Surgeons and the discipline of surgery, particularly academic surgery, have a tradition of leadership both in medicine and society. Currently, we are being challenged to harness our innate curiosity, hard work, and perseverance to address the historically significant deficiencies within our field in the areas of diversity, equity, and inclusion.

**Methods:** The ASA leadership requested members to volunteer to serve on a Task Force to comprehensively address equity, diversity, and inclusion in academic surgery. Nine work groups reviewed the current literature, performed primary qualitative interviews, and distilled available guidelines and published primary source materials. A work product was created and published on the ASA Website and made available to the public. The full work product was summarized into this White Paper.

**Results:** The ASA has produced a handbook entitled: Ensuring Equity, Diversity, and Inclusion in Academic Surgery, which identifies issues and challenges, and develops a set of solutions and benchmarks to aid the academic surgical community in achieving these goals.

**Conclusion:** Surgery must identify areas for improvement and work iteratively to address and correct past deficiencies. This requires honest and ongoing identification and correction of implicit and explicit biases. Increasing diversity in our departments, residencies, and universities will improve patient care, enhance productivity, augment community connections, and achieve our most fundamental ambition—doing good for our patients.

**Keywords:** bullying, discrimination, diversity, equality, equity, faculty recruitment, inclusion, LGBTQ, medical ethics, microaggression, surgery faculty, surgical education

(Ann Surg 2018;268:403–407)

In October 2017, the leadership of the American Surgical Association (ASA) identified increasing diversity in the surgical workforce as a priority of the Association and approved the preparation of a handbook to aid departments of surgery in achieving this aim. A call for volunteers was extended to the ASA membership, and a roster of contributing authors was selected, led by Dr Ronald Maier. Over 3 months, the committee compiled a comprehensive document entitled: Ensuring Equity, Diversity, and Inclusion in Academic Surgery. The aim of this document is to serve as a practical reference for surgical departments and institutions as they work to address this critical issue. The following is a summary of the handbook, which can be downloaded in full at: <http://www.americansurgical.org/equity/>.

### Ensuring Equity, Diversity, and Inclusion: An Academic Surgery Imperative

The demographics of the United States are changing and the country is becoming more racially and ethnically diverse.<sup>1</sup> In 2003, the Association of American Medical Colleges (AAMC) adopted the following definition: "Under-Represented in Medicine (URiM) means those racial and ethnic populations that are under-represented in the medical profession relative to their numbers in the general population."<sup>2</sup> Evidence from the AAMC and the Accreditation Council for Graduate Medical Education (ACGME) shows far fewer women and URiM faculty in surgery departments than in the general population.<sup>3</sup> Women and racial/ethnic minorities have had fewer opportunities to enter academic surgery and they encounter more academic career challenges than their white male counterparts. Less data are available for the lesbian, gay, bisexual, transgender (LGBT) community or disabled surgeons, but few success stories can be identified.

From the \*Department of Surgery, University of Minnesota, North Memorial Health, Minneapolis, MN; †Department of Surgery, Duke University, Durham, NC; ‡Department of Surgery, University of Washington, Seattle, WA; §Department of Surgery, Yale School of Medicine, New Haven, CT; ¶Department of Surgery, University of Chicago, Chicago, IL; ||Department of Surgery, The Methodist Hospital, Houston, TX; |||Department of Surgery, University of Oregon Health Sciences University, Portland, OR; ††Department of Surgery, University of Alabama, Birmingham, AL; ‡‡Department of Surgery, Washington University School of Medicine, St. Louis, MO; §§Department of Surgery, City of Hope Cancer Center, Duarte, CA; ¶¶Department of Surgery, University of Wisconsin, Madison, WI; \*\*\*Department of Surgery, Massachusetts General Hospital, Boston, MA; †††Department of Surgery, Wright State University School of Medicine, Dayton, OH; ||||Department of Surgery, Weill Cornell Medical College, New York, NY; |||||Department of Surgery, Upstate Medical University, Syracuse, NY; |||||Department of Surgery, Southern Illinois University, Springfield, IL; \*\*\*\*Department of Surgery, Albany Medical College, Albany, NY; \*\*\*\*\*Department of Surgery, University of Iowa, Iowa City, IA; and \*\*\*\*\*Department of Surgery, Stanford University School of Medicine, Palo Alto, CA.

Drs Hwang and West contributed equally to the primary authorship of this document.

The authors report no conflicts of interest.

Reprints: Michaela A. West, MD, PhD, FACS, 3300 Oakdale Blvd, Minneapolis, MN 55422. E-mail: [westmichaela@outlook.com](mailto:westmichaela@outlook.com).

Copyright © 2018 Wolters Kluwer Health, Inc. All rights reserved.

ISSN: 0003-4932/18/26803-403\$12.00

DOI: 10.1097/SLA.0000000000002937

Annals of Surgery • Volume 268, Number 3, September 2018

[www.annalsofsurgery.com](http://www.annalsofsurgery.com) | 403

2018

- Patient satisfaction
- Participatory decision-making
- Use of services
- Treatment adherence



# ...and Outcomes

Original Investigation

August 30, 2023

**JAMA Surgery**

## Surgeon Sex and Long-Term Postoperative Outcomes Among Patients Undergoing Common Surgeries

**PNAS**

RESEARCH ARTICLE

ECONOMIC SCIENCES

MSc<sup>1</sup>; et al

## Patient–physician gender concordance and increased mortality among female heart attack patients

Brad N. Greenwood<sup>a,1</sup>, Seth Carnahan<sup>b</sup>, and Laura Huang<sup>c</sup>

**PNAS**

RESEARCH ARTICLE

ECONOMIC SCIENCES

## Physician–patient racial concordance and disparities in birthing mortality for newborns

- Surgical complications
- Mortality
- Not just due to trust or communication

Brad N. Greenwood  <sup>a,2,1</sup>, Rachel R. Hardeman  <sup>b,1</sup>, Laura Huang  <sup>c,1</sup>, and Aaron Sojourner  <sup>d,1</sup>





# Diversity Improves Care Beyond Concordance

- Exposure to diverse colleagues in med school reduces implicit & explicit bias expression in residency

*Onyeador, Psychol Sci 2020*

- Patients treated by women physicians may have better outcomes
  - Readmission
  - Mortality
  - Surgical complications

*Tsugawa JAMA Intern Med 2017  
Wallis, BMJ 2017*





# Failure to Retain Diversity

- Majority of DEI efforts in surgery around recruitment
- AAMC surgical residency programs' resident censuses x 18y
  - Recruitment
    - Women increased by 31.5%
    - URiMs decreased by 2.1%
  - All-cause attrition in gen surg
    - Women RR 1.33 (95% CI 1.24-1.42)
    - URiM RR 1.13 (95% CI 1.04-1.23)
  - Unintended attrition (dismissal) in gen surg
    - Women RR 1.31 (95% CI 1.17-1.47)
    - URiM RR 1.54 (95% CI 1.35-1.76)

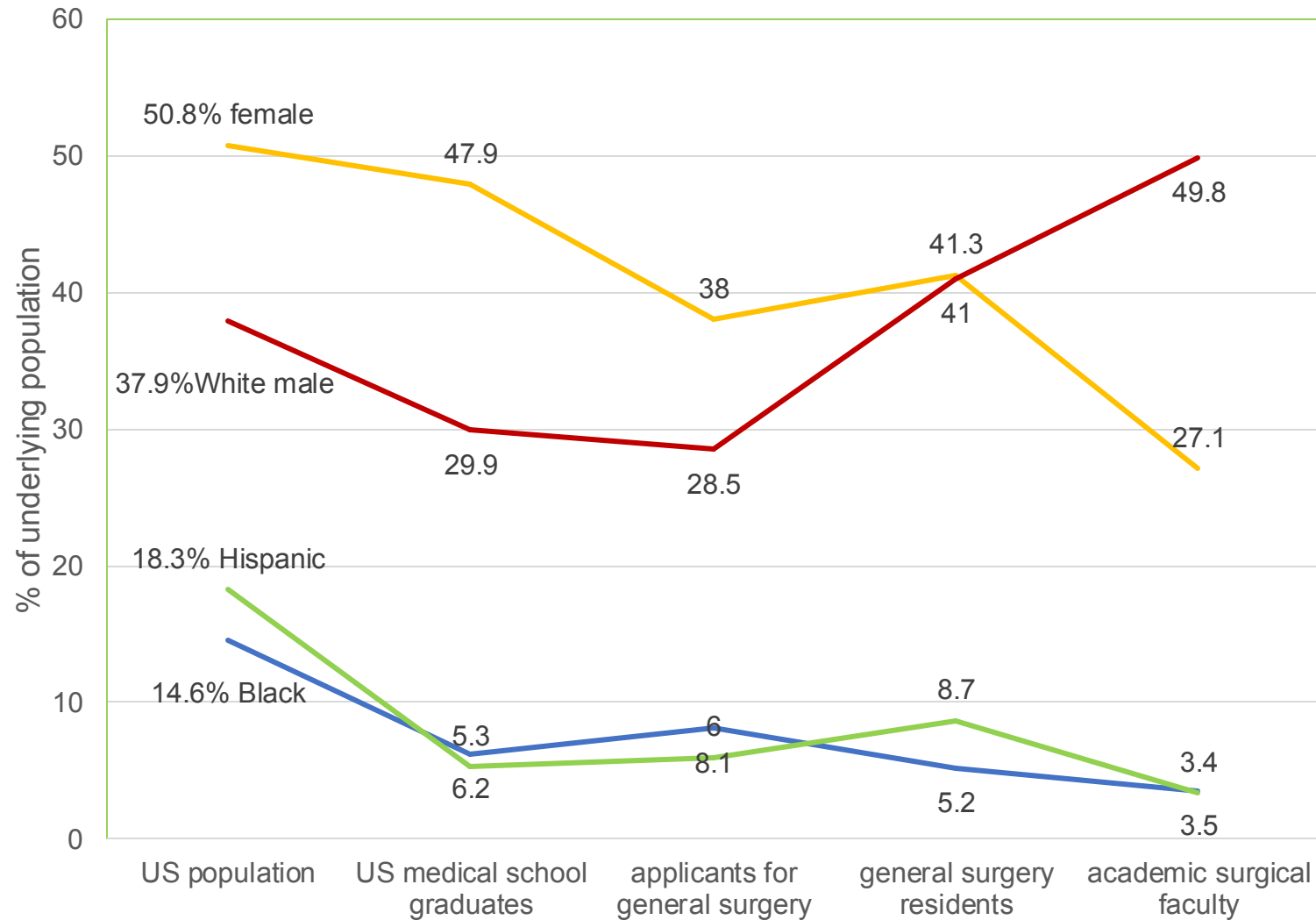
*Rajaguru, JACS 2022*

*Haruno, JAMA Surg 2023*





# Failure to Retain Diversity



US Census Bureau 2019  
Choinski, JAMA Surg 2020  
Brotherton, JAMA 2019  
AAMC 2020



@yueyunghu  
@SENTteam

A large, diverse group of healthcare professionals, including doctors and nurses, are shown from the chest up, wearing white coats. They have various ethnicities, ages, and hairstyles, and some are wearing glasses. The background is a light, neutral color.

# How do we retain talent?



@yueyunghu  
@SENTteam

# Surgical Education Numbered Trials







# Data Sources

## • Quantitative



- Survey after the American Board of Surgery In-Training Exam (ABSITE)
- All clinically active residents training in ACGME-accredited programs
- Elective, confidential
- N=6826-7415
- Response rate 77-99%

## • Qualitative

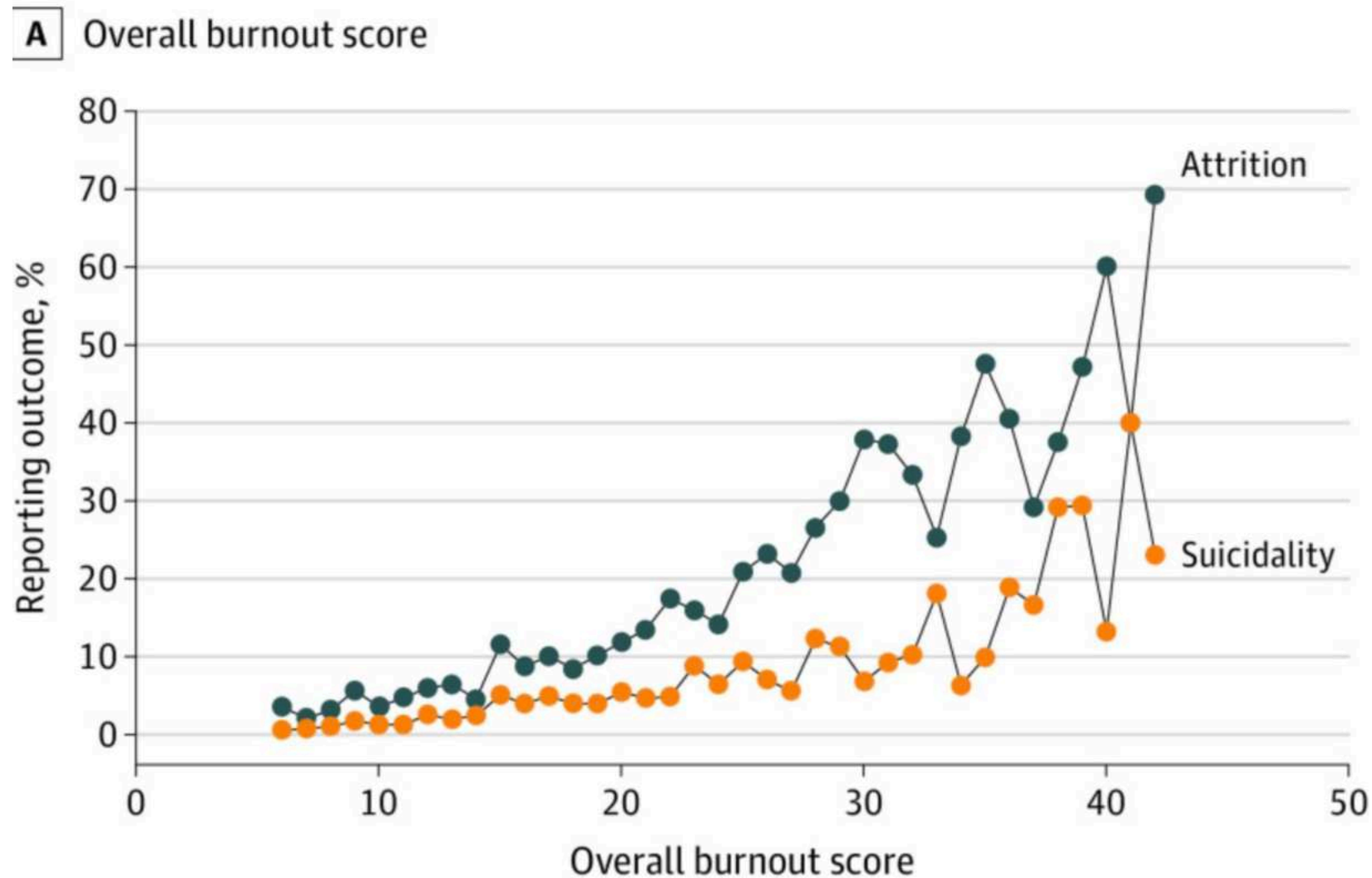
- 15 general surgery program tours
- 398 interviews & focus groups
- Deductively & inductively coded
- Recent PD & VC DEI (Zoom)







# Burnout Drives Attrition



**Brock Hewitt, MD MPH**  
*JAMA Surg 2020*

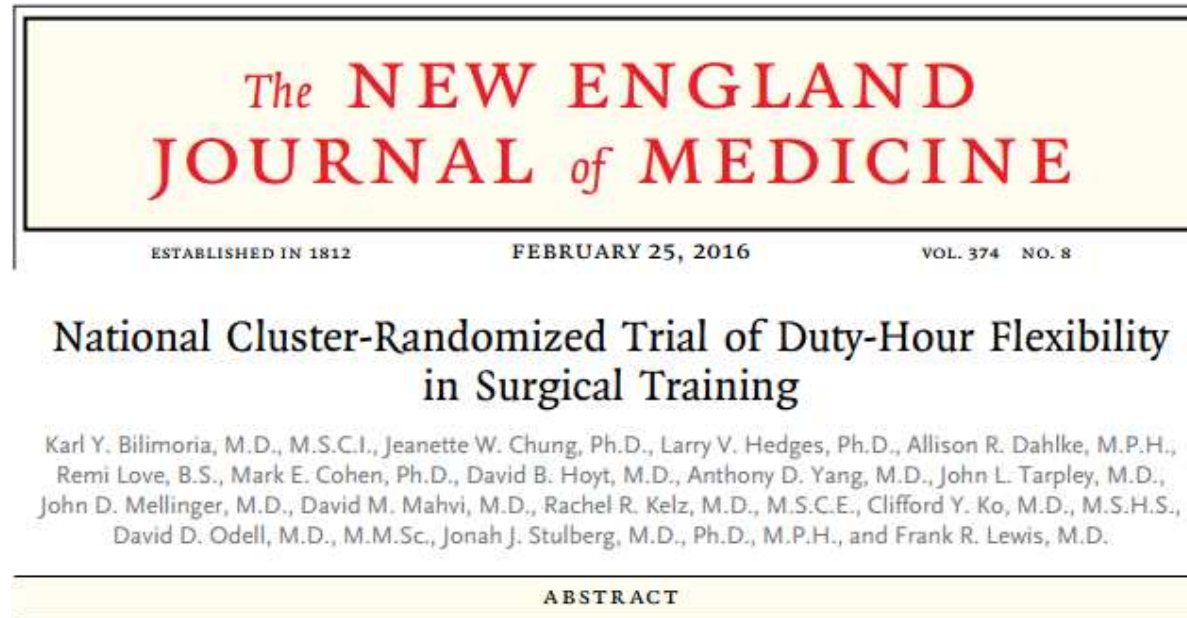


@yueyunghu  
@SENTteam

What drives  
burnout?



# FIRST Trial



## BACKGROUND

Concerns persist regarding the effect of current surgical resident duty-hour policies on patient outcomes, resident education, and resident well-being.

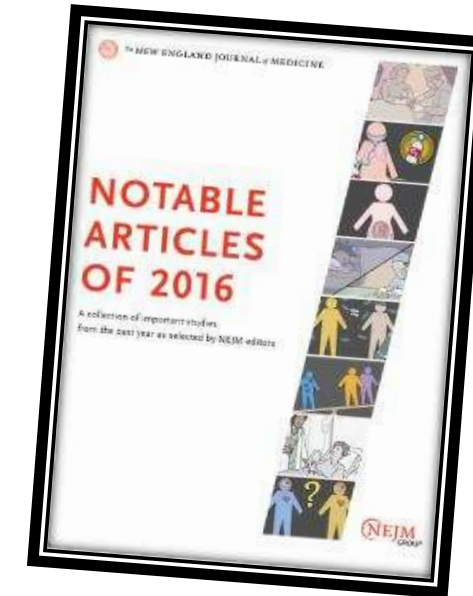
## METHODS

We conducted a national, cluster-randomized, pragmatic, noninferiority trial involving 117 general surgery residency programs in the United States (2014–2015 academic year). Programs were randomly assigned to current Accreditation Council for Graduate Medical Education (ACGME) duty-hour policies (standard-policy group) or more flexible policies that waived rules on maximum shift lengths and time off between shifts (flexible-policy group). Outcomes included the 30-day rate of postoperative death or serious complications (primary outcome), other postoperative complications, and resident perceptions and satisfaction regarding their well-being, education, and patient care.

## RESULTS

In an analysis of data from 138,691 patients, flexible, less-restrictive duty-hour policies

From the Surgical Outcomes and Quality Improvement Center (SOQIC), Department of Surgery and Center for Healthcare Studies, Feinberg School of Medicine and Northwestern Medicine, Northwestern University (K.Y.B., J.W.C., A.R.D., R.L., A.D.Y., D.M.M., D.D.O., J.J.S.), and the American College of Surgeons (K.Y.B., M.E.C., D.B.H., C.Y.K.), Chicago, the Department of Statistics, Northwestern University, Evanston (L.V.H.), and the Department of Surgery, Southern Illinois University, Springfield (J.D.M.) — all in Illinois; the Department of Surgery, Vanderbilt University, Nashville (J.L.T.); the Department of Surgery and the Center for Surgery and Health Economics, Perelman School of Medicine, University



Karl Bilimoria, MD MS



@yueyunghu  
@SENTteam



# Intervention = Eliminating Duty Hours Restrictions

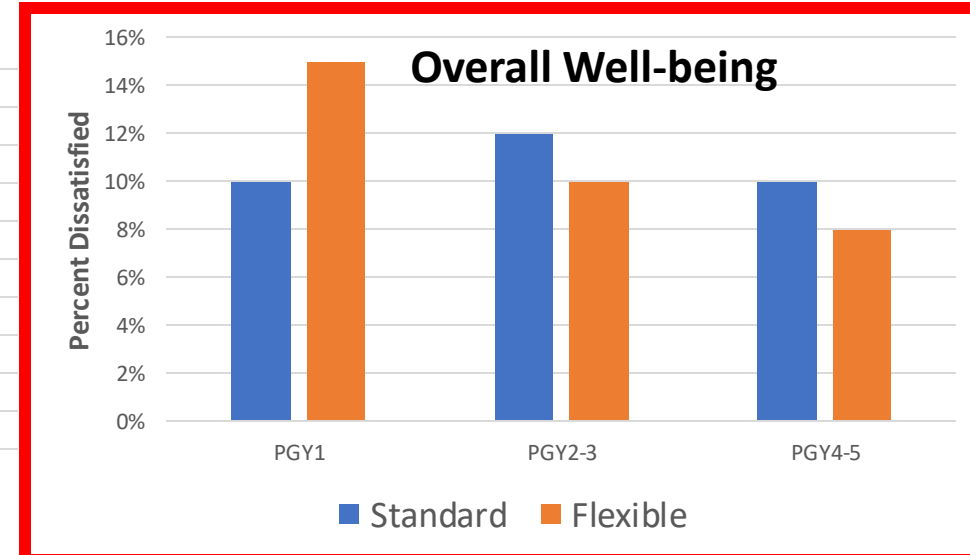
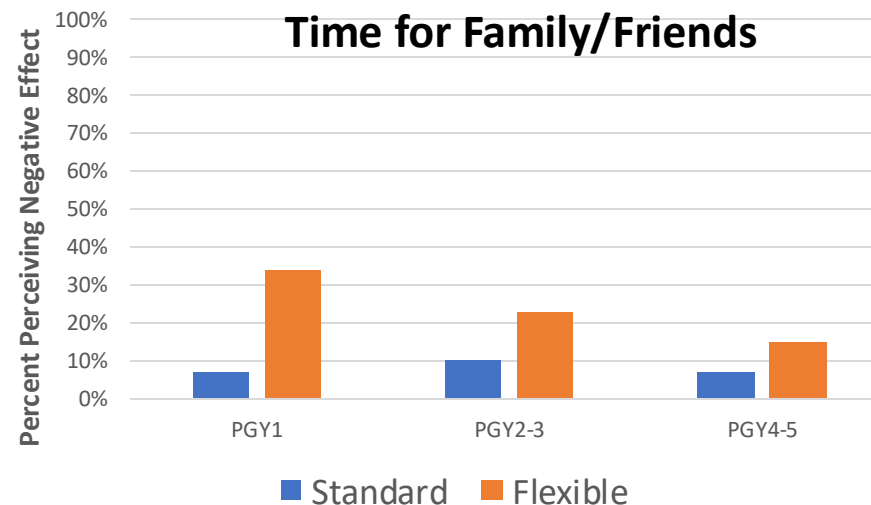
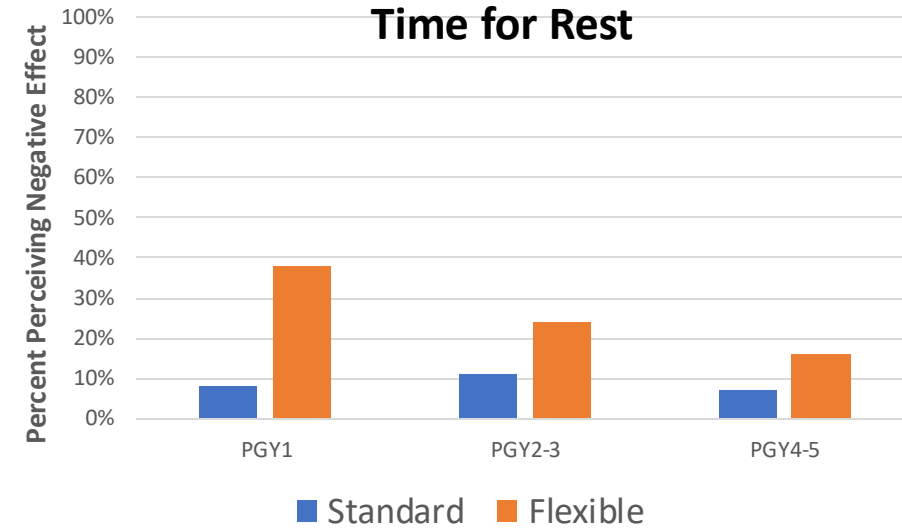
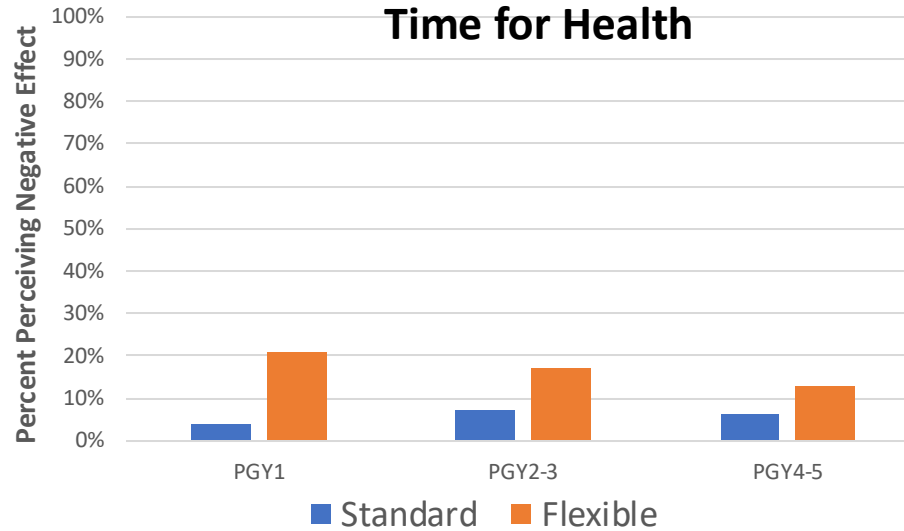
YEAR	STANDARD POLICY	FLEXIBLE POLICY
2003	Maximum of 24 hours duty with an additional 4 hours for transitions in care	Eliminated
2003	At least 8-10 hours off after a regular shift	Eliminated
2011	PGY-1 resident duty periods must not exceed 16 hours	Eliminated
2011	Residents must have 14 hours off after 24 hours in-house duty	Eliminated







# Better Well-Being Despite Less Time Off



**Tony Yang, MD MS**

JACS 2017



@yueyunghu  
@SENTteam

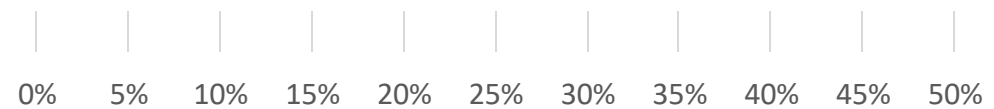


# Improved Continuity

**Leave During an Operation  
Due to Duty Hour Regulations**



%



**Event Occurred at Least Once in the Last Month**



@yueyunghu  
@SENTteam



# 4 Years After FIRST, Worse Well-Being for All



Rhami Khorfan, MD MPH  
Ann Surg 2020



@yueyunghu  
@SENTteam



# Lessons Learned about Well-Being

## 1. It's about meaning, not hours





# Worse Well-Being in Women

- FIRST: women more likely to endorse 9/12 measures of poor psychological well-being
- Higher burnout in women in multiple prior studies

*Dahlke, Ann Surg 2018*

*Dyrbye, JAMA 2018*

*Elmore, JACS 2016*

*Lindeman, JSE 2017*





# Identity-Based Mistreatment

*The* NEW ENGLAND JOURNAL *of* MEDICINE

## SPECIAL ARTICLE

### Discrimination, Abuse, Harassment, and Burnout in Surgical Residency Training

Yue-Yung Hu, M.D., M.P.H., Ryan J. Ellis, M.D., M.S.C.I.,  
D. Brock Hewitt, M.D., M.P.H., Anthony D. Yang, M.D., Elaine Ooi Cheung, Ph.D.,  
Judith T. Moskowitz, Ph.D., M.P.H., John R. Potts III, M.D., Jo Buyske, M.D.,  
David B. Hoyt, M.D., Thomas J. Nasca, M.D., and Karl Y. Bilimoria, M.D., M.S.C.I.

#### ABSTRACT

##### BACKGROUND

Physicians, particularly trainees and those in surgical subspecialties, are at risk for burnout. Mistreatment (i.e., discrimination, verbal or physical abuse, and sexual harassment) may contribute to burnout and suicidal thoughts.

##### METHODS

A cross-sectional national survey of general surgery residents administered with the 2018 American Board of Surgery In-Training Examination assessed mistreatment, burnout (evaluated with the use of the modified Maslach Burnout Inventory), and suicidal thoughts during the past year. We used multivariable logistic-regression mod-

From the Surgical Outcomes and Quality Improvement Center (SOQIC), Department of Surgery, Feinberg School of Medicine, Northwestern Medicine (Y.-Y.H., R.J.E., D.B. Hewitt, A.D.Y., K.Y.B.), the Division of Pediatric Surgery, Ann and Robert H. Lurie Children's Hospital (Y.-Y.H.), the American College of Surgeons (R.J.E., D.B. Hoyt, K.Y.B.), the Department of Medical Social Sciences, Northwestern University (E.O.C., J.T.M.), and the Ac-



Ryan Ellis, MD MS

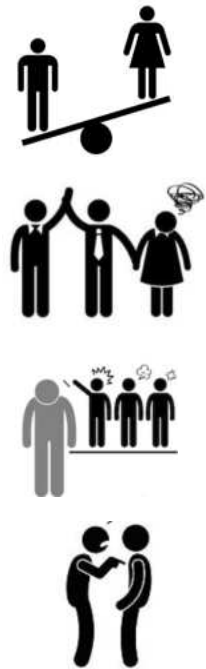


@yueyunghu  
@SENTteam





# Identity-Based Mistreatment



	All N=7409	Men N=4438	Women N=2935
Gender discrimination	31.9%	10.0%	<b>65.1%</b>
Sexual harassment	10.3%	3.9%	<b>19.9%</b>
Racial discrimination	<b>16.6%</b>	15.1%	<b>18.6%</b>
Verbal/emotional abuse	<b>30.2%</b>	28.3%	<b>33.3%</b>
<b>Any</b>	<b>49.9%</b>	<b>36.1%</b>	<b>70.6%</b>





# Mistreatment Drives Gender Differences in Well-Being

	% Residents	Excluding Mistreatment
<b>BURNOUT</b>	38.5%	
Gender		
Female	42.4%	1.33 (1.20 – 1.48)*
Male	35.9%	1.0 (ref)
<b>SUICIDALITY</b>	4.5%	
Gender		
Female	5.3%	1.31 (1.03 – 1.67)*
Male	3.9%	1.0 (ref)

Adjusted for PGY, relationship status, program size, program type, program location, and duty hour violations



May 26, 2020

# Prevalence, Types, and Sources of Bullying Reported by US General Surgery Residents in 2019

Lindsey M. Zhang, MD, MS<sup>1</sup>; Ryan J. Ellis, MD, MS<sup>1</sup>; Meixi Ma, MD, MS<sup>1</sup>; [et al](#)

Lindsey Zhang, MD MS

N=6956	Prevalence
Repeated reminders of mistakes	42.3%
Shouting	39.3%
Gossiping	32.7%
Withholding important information	31.8%
Exclusion	31.2%
Persistent criticism	30.3%
Hostility	24.3%
Offensive remarks	23.4%
Unwanted jokes	9.1%
<b>Occasional Bullying</b>	<b>43.8%</b>
<b>Frequent Bullying</b>	<b>18.1%</b>

# Experiences of Gender Discrimination & Sexual Harassment Among US General Surgery Residents



Cary Schlick, MD MS

6,956 responses (85.6% response rate) after 2019 ABSITE



79.9% Gender Discrimination



42.5% Sexual Harassment

## Specific Behaviors



77.4% mistaken for non-physician



43.2% different standards of evaluation



29.7% advised not to have children



37.3% crude, demeaning, explicit comments



17.5% offensive body language

6.1% unwanted physical sexual attention

## Associated Factors

### Discrimination

### Harassment



Low ABSITE scores

Seniority

Children



Pregnancy

Seniority

High ABSITE scores

High ABSITE scores

Female faculty

JAMA Surgery



@yueyunghu  
@SENTteam



# Racial/Ethnic Discrimination

N=6956	Black	Hispanic	Asian	NH White
Mistaken for nonphysician	62.4%	13.7%	15.6%	1.5%
Mistaken for another person of same race	55.8%	15.4%	37.5%	8.7%
Different standards of evaluation	38.0%	10.8%	14.2%	2.9%
Slurs or hurtful comments	24.8%	8.3%	13.4%	7.3%
Denied opportunities	16.1%	5.6%	6.1%	2.0%
Socially isolated	11.6%	5.4%	3.8%	1.9%
<b>Any</b>	<b>70.7%</b>	<b>25.3%</b>	<b>45.9%</b>	<b>12.6%</b>



**Tarik Yuce, MD MS**  
*JAMA Surg 2020*



@yueyunghu  
@SENTteam



# LGBTQ+ Mistreatment

N=6956	Non-LGBTQ+ Men	LGBTQ+ Men	Non-LGBTQ+ Women	LGBTQ+ Women
Bullying	63.0%	<b>71.8%</b>	72.6%	<b>77.6%</b>
Gender/LGBTQ+ discrimination	15.9%	<b>33.3%</b>	80.1%	<b>82.5%</b>
Sexual harassment	20.7%	<b>34.9%</b>	41.6%	<b>59.0%</b>



Evan Heiderscheit, MD  
*JAMA Surg 2022*



@yueyunghu  
@SENTteam



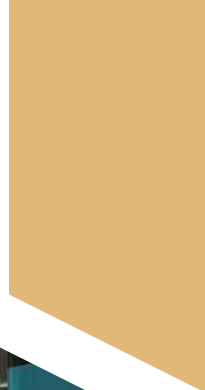


# Lessons Learned about Well-Being

---

1. It's about meaning, not hours
2. No wellness without inclusion



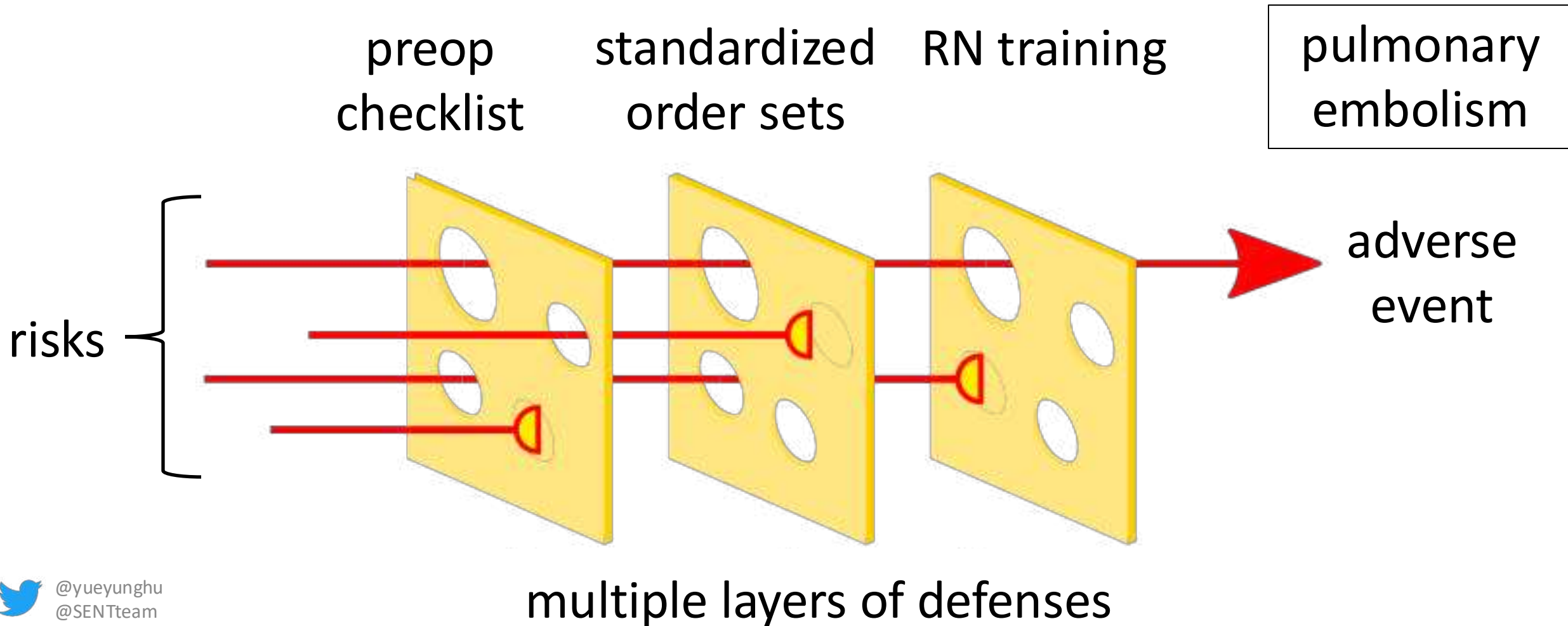


# Surgical Education Culture Optimization based on National comparative Data





# Quality Improvement: A Systems Approach





# Wellness: A Systems Approach?

pick resilient  
physicians

emphasize  
self-care

pizza parties

burnout

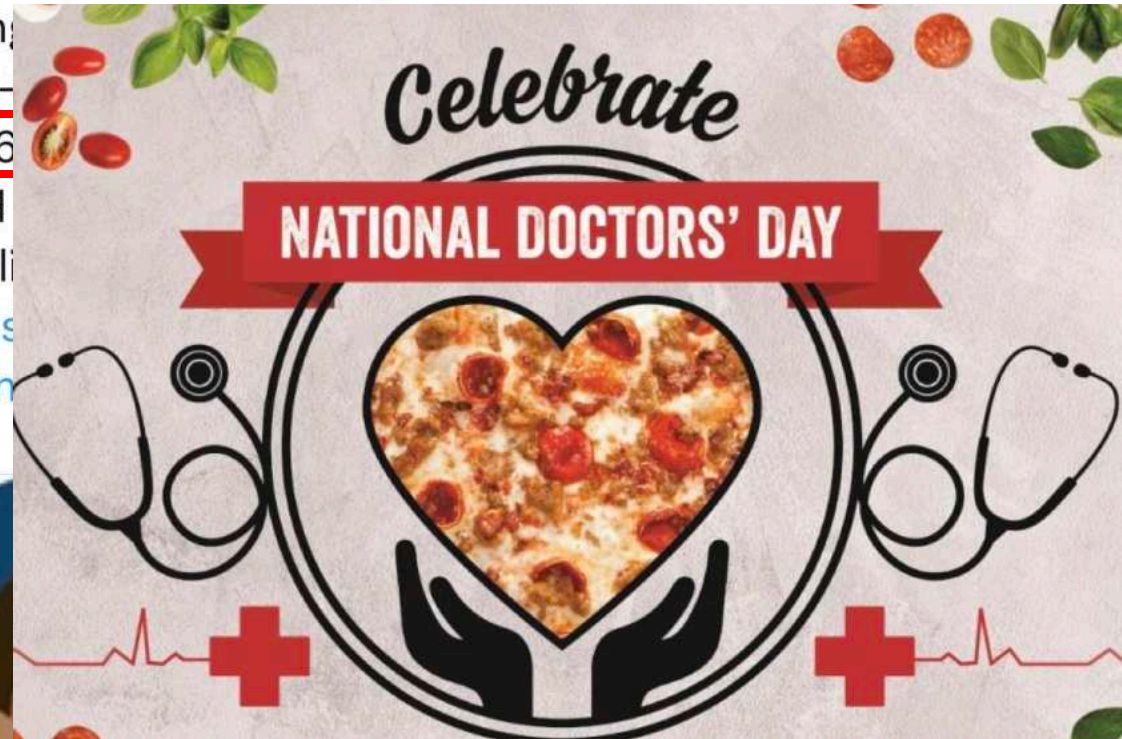


AmJSurgery  
@AmJSurgery

Physician Well-Being  
and Encourage Self-  
alignment with our 6

Provider Health and  
I tweeted about earl  
out. [edhub.ama-assn](#)  
[@AmerMedicalAssn](#)

Burnout and perceived self-efficacy, depression and support in surgery residents research is needed for se trainees and increase res our trainees to reduce bu  
[#SoMe4Surgery](#) @herbc  
[@pferrada1](#) @Cirbosque



erse  
ent

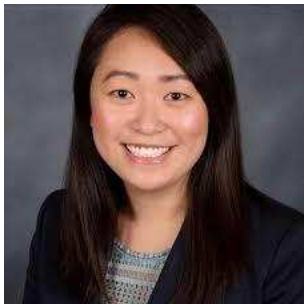
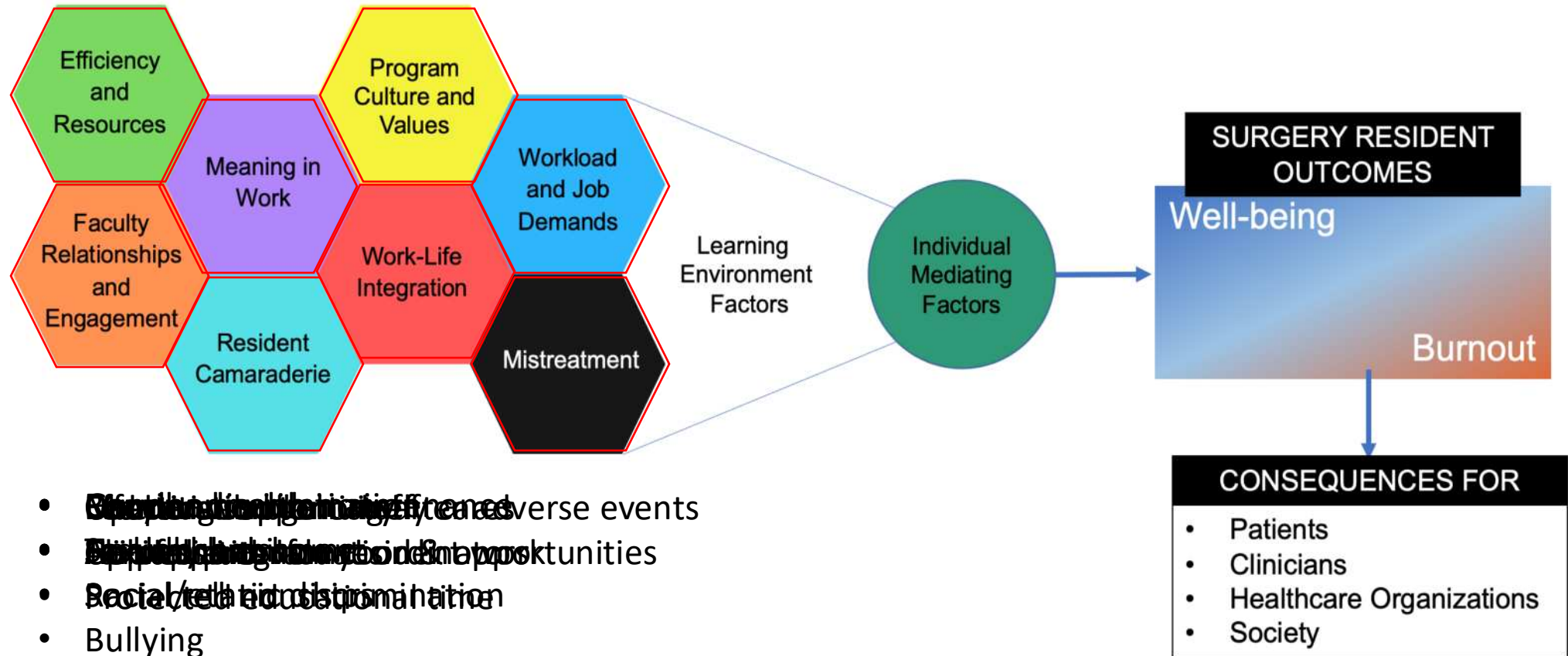


@yueyun  
@SENTte:





# SECOND Conceptual Model



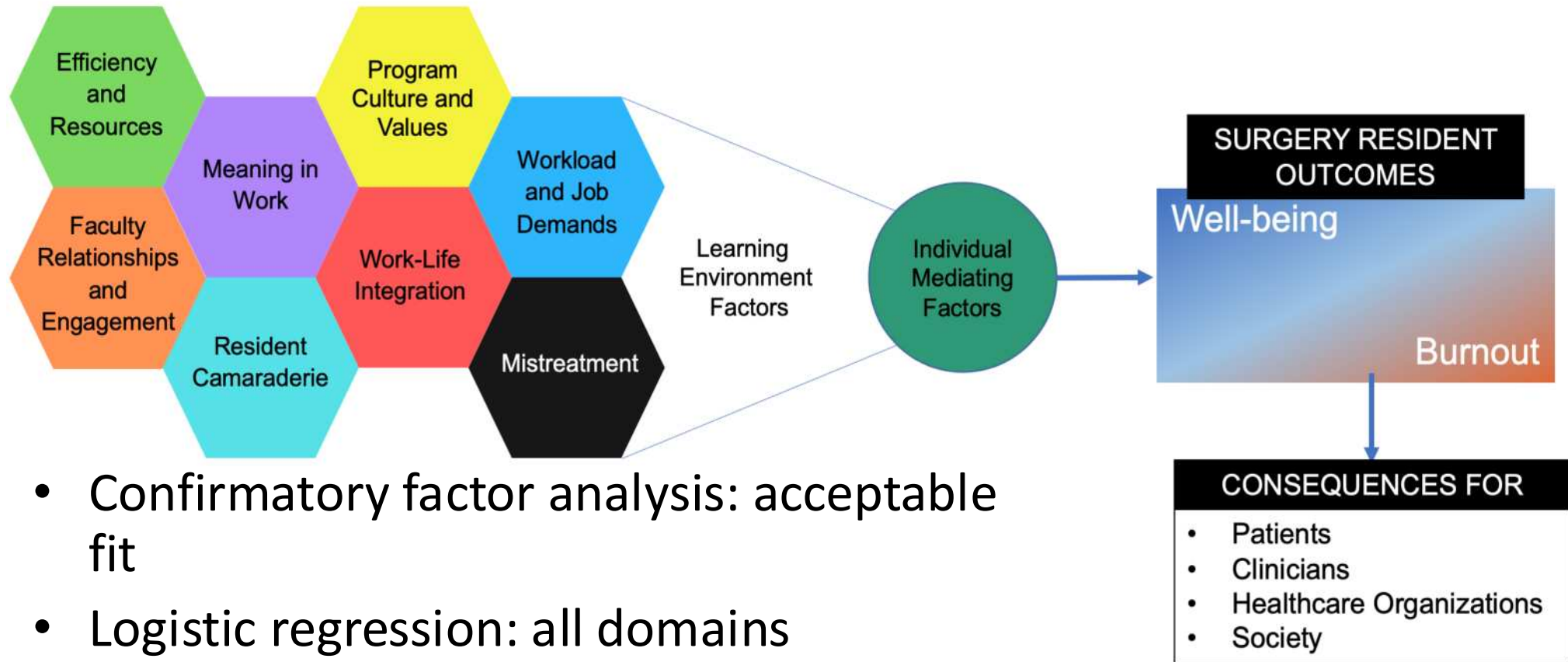
**Lindsey Zhang, MD MS**  
*Am J Surg* 2020



@yueyunghu  
@SENTteam



# SECOND Conceptual Model



Ryan Elia, MD, MS  
Am Surg 2020

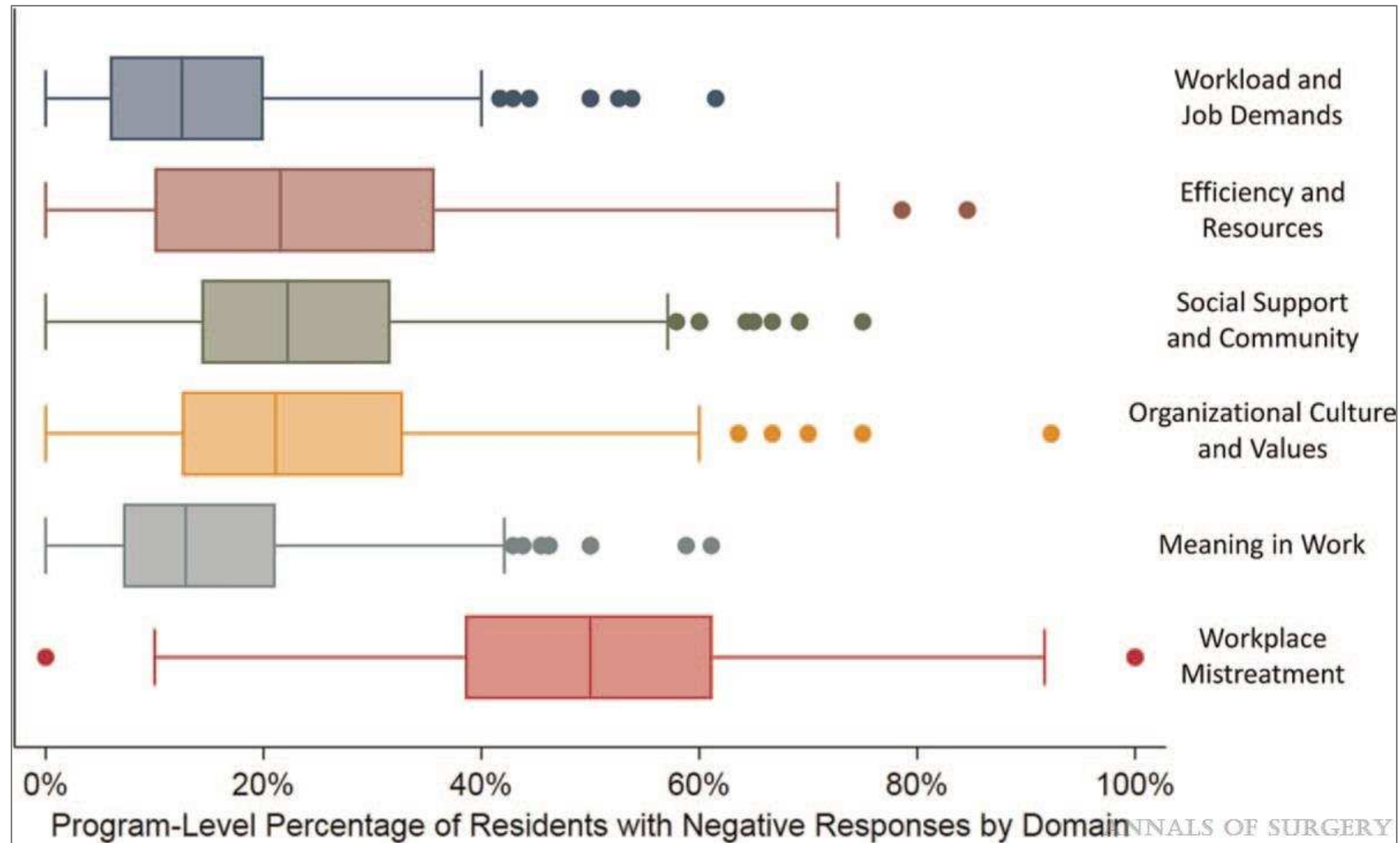
- Confirmatory factor analysis: acceptable fit
- Logistic regression: all domains independently associated with burnout



@yueyunghu  
@SENTteam

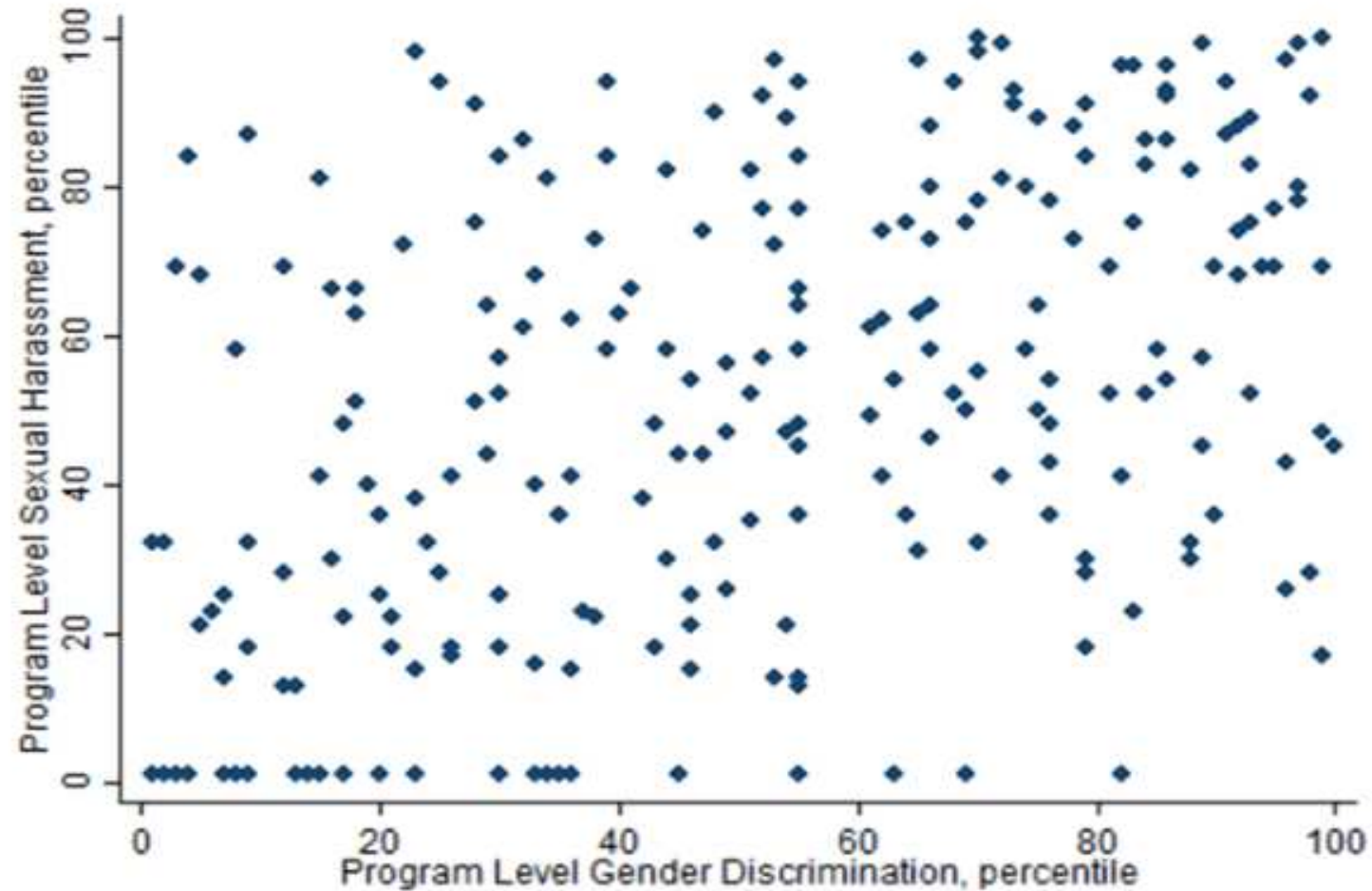


# Considerable Program-Level Variation





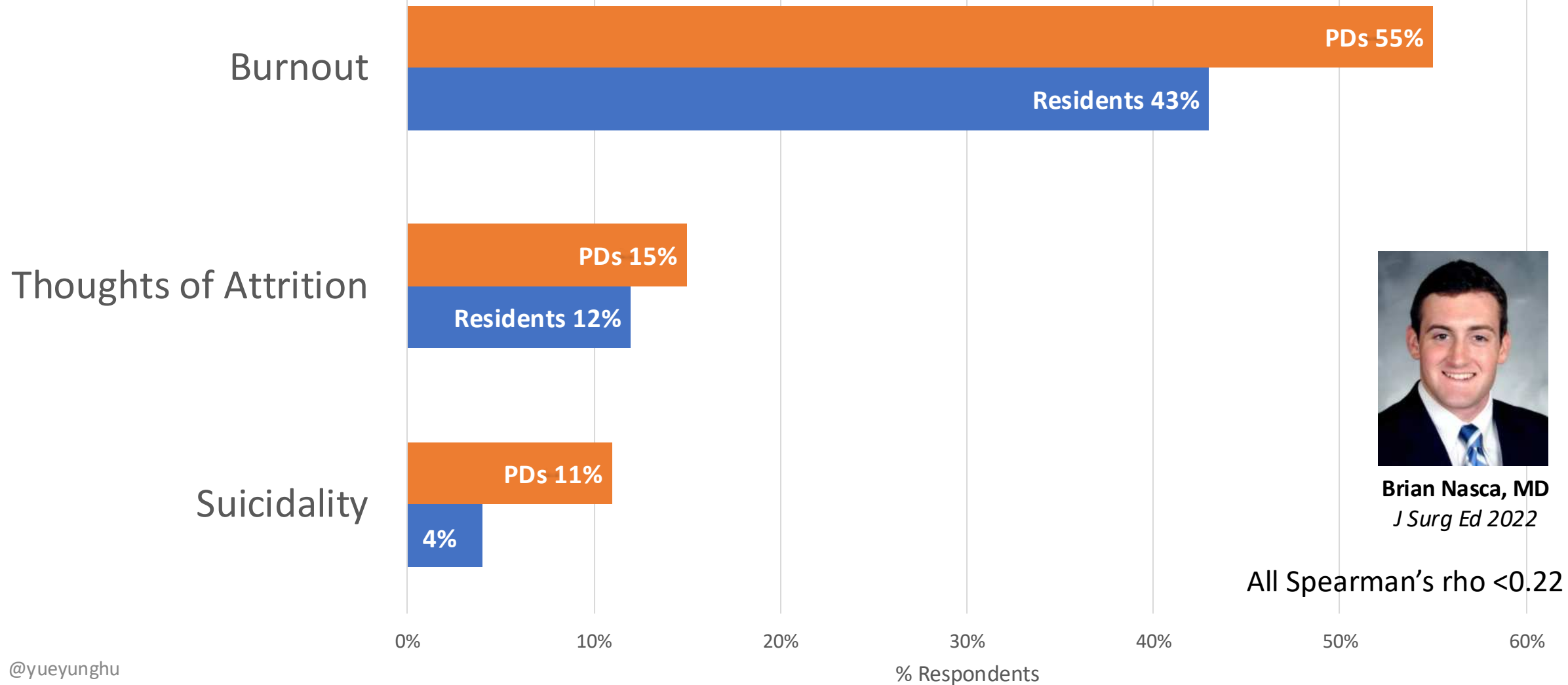
# Not Just “Bad Apple” Programs







# PDs (Slightly) Overestimate Well-Being Issues

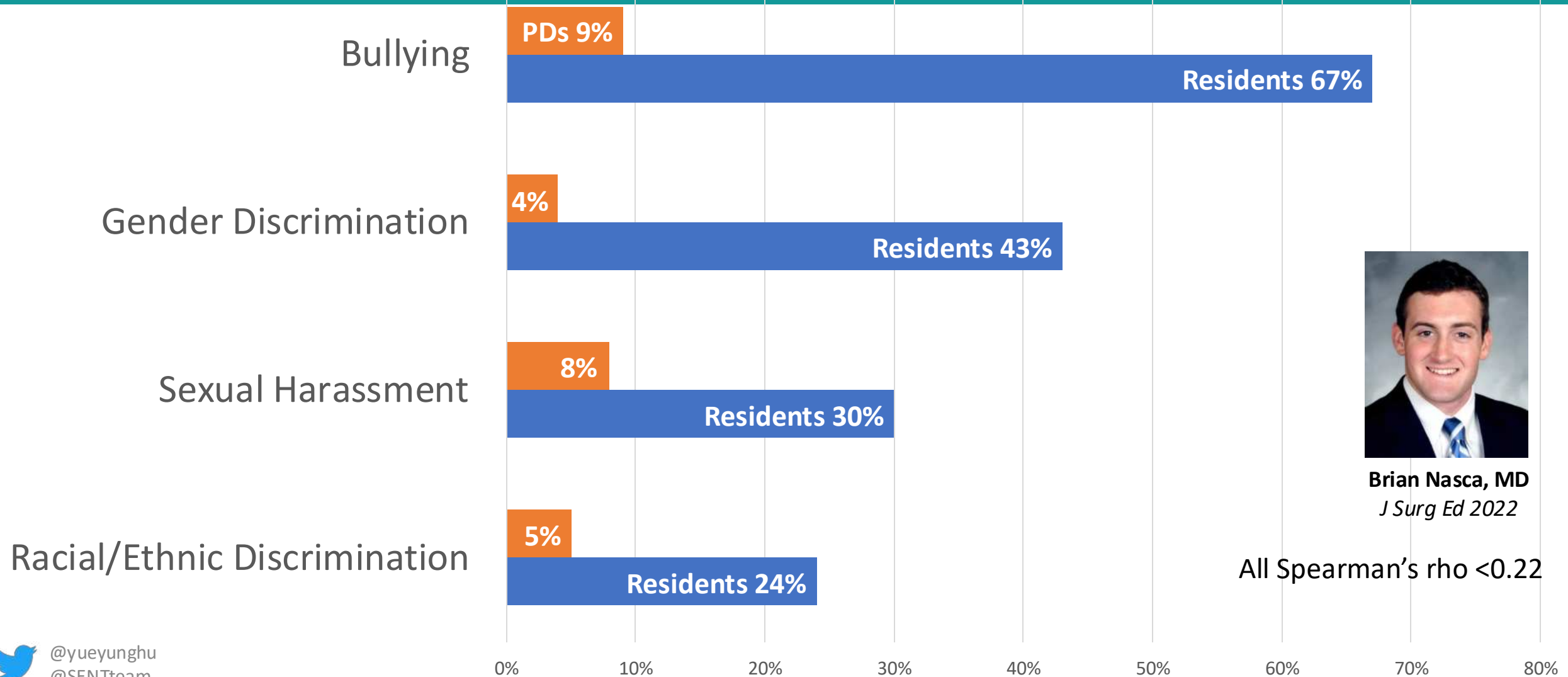


Brian Nasca, MD  
*J Surg Ed 2022*





# PDs Vastly Underestimate Mistreatment



**Brian Nasca, MD**  
*J Surg Ed 2022*



# Intervention: Data



## 2019 SECOND TRIAL LEARNING ENVIRONMENT & RESIDENT WELL-BEING REPORT

SECOND Trial Program Number:  
Program Size:  
Program Type:

1006  
Large (>27 residents)  
Academic

This report is based on data from the annual post-ABSITE survey taken by your residents each year. The report is intended to highlight areas where your program is performing well and areas that may merit attention. The "Getting Started" document contains instructions for interpretation of this report. Please email [SECOND@northwestern.edu](mailto:SECOND@northwestern.edu) with any questions or suggestions on how to improve or clarify the report.



	Your Program's Performance Quartile			Benchmarks: Ranges for Each Quartile for All Programs in the Country				Unit of Measurement
	Compared to All Programs in the Country	Compared to Large (>27 residents) Sized Programs	Compared to Academic Programs	Q1 Range	Q2 Range	Q3 Range	Q4 Range	
<b>Burnout (6-Item Composite)</b>	Q3	Q3	Q3	0.0-29.9	30.0-41.9	42.0-52.9	53.0-86.0	% Reporting at least Weekly Symptoms
Emotional Exhaustion (3-Item Composite)	Q3	Q3	Q3	0.0-27.9	28.0-37.9	38.0-47.9	48.0-79.0	% Reporting at least Weekly Symptoms
Depersonalization (3-Item Composite)	Q3	Q3	Q3	0.0-13.9	14.0-21.9	22.0-29.9	30.0-71.0	% Reporting at least Weekly Symptoms
Personal Accomplishment (3-Item Composite)	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	96.0-100.0	91.0-95.9	84.0-90.9	53.0-83.9	% Reporting at least Weekly Sentiments
<b>Thoughts of Attrition</b>	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	0.0-5.3	5.4-10.8	10.9-15.8	15.9-57.9	% Reporting Occurrence
<b>Suicidal Thoughts</b>	Q3	Q3	Q3	0.0-0.0	0.1-3.2	3.3-6.9	7.0-33.3	% Reporting Occurrence
<b>Workload &amp; Job Demands (3-Item Composite)</b>	Q3	Q3	Q3	0.0-7.7	7.8-12.0	12.1-17.5	17.6-44.1	Factor Score on 0-100 Scale
80-hour violations	Q3	Q2	Q3	0.0-21.7	21.8-34.8	34.9-49.2	49.3-88.9	% Reporting Any Months of Violations
1 day off in 7 violations	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	0.0-0.0	0.1-7.0	7.1-13.0	13.1-56.0	% Reporting ≥ 2 Months of Violations
Call >1 in 3 nights violations	Q3	Q3	Q3	0.0-0.0	0.1-3.9	4.0-7.9	8.0-60.0	% Reporting ≥ 2 Months of Violations
<b>Resident Camaraderie (3-Item Composite)</b>	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	3.4-3.8	3.2-3.3	3.0-3.2	2.4-3.0	Factor Score on 0-5 Scale
Appreciated by co-residents	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	4.3-5.0	4.1-4.3	4.0-4.1	3.3-4.0	Avg. Agreement on 1-5 Scale
Residents cooperate	Q3	Q4: Merits Attention	Q4: Merits Attention	4.5-5.0	4.3-4.5	4.1-4.3	3.2-4.1	Avg. Agreement on 1-5 Scale
Co-residents among closest friends	Q3	Q4: Merits Attention	Q4: Merits Attention	4.0-4.8	3.7-4.0	3.5-3.7	2.5-3.5	Avg. Agreement on 1-5 Scale
<b>Faculty Engagement (2-Item Composite)</b>	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	2.7-3.1	2.5-2.7	2.4-2.5	1.7-2.4	Factor Score on 0-5 Scale
A mentor who genuinely cares	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	4.1-5.0	3.8-4.1	3.6-3.8	2.9-3.6	Avg. Agreement on 1-5 Scale
Appreciated by attendings	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	4.1-4.8	3.9-4.1	3.8-3.9	2.3-3.8	Avg. Agreement on 1-5 Scale
<b>Organizational Culture &amp; Values/Flexibility &amp; Control (4-Item Composite)</b>	Q3	Q3	Q3	3.4-4.0	3.2-3.4	3.0-3.2	1.9-3.0	Factor Score on 0-5 Scale
Program takes my wellness seriously	Q3	Q3	Q3	4.2-4.9	3.9-4.1	3.7-3.9	2.1-3.7	Avg. Agreement on 1-5 Scale
Program helps decompress/debrief/cope after adverse events	Q3	Q3	Q3	3.8-4.6	3.5-3.7	3.2-3.5	2.1-3.2	Avg. Agreement on 1-5 Scale
Program emphasizes learning not blame from adverse events	Q4: Merits Attention	Q4: Merits Attention	Q4: Merits Attention	4.1-5.0	3.9-4.1	3.7-3.9	2.6-3.7	Avg. Agreement on 1-5 Scale
Program responsive to resident concerns	Q3	Q3	Q3	3.1-5.0	2.8-3.1	2.5-2.8	2.1-2.5	Avg. Agreement on 1-5 Scale
Burnout is a problem in my program (reverse-coded so higher scores better)	Q3	Q3	Q3	4.3-5.0	4.0-4.2	3.7-4.0	1.9-3.7	Avg. Agreement on 1-5 Scale

Workload  
& Job  
Demands

Resident  
Camaraderie

Faculty  
Engage-  
ment

Program



# Intervention: Wellness Toolkit

66 interventions

## The Toolkit

Help:

TOOLKIT INSTRUCTIONS

Meaning in Work

Faculty Engagement

Effort

Re

Org: Cul

Filter by Domain

Select a domain...

Filter by Cost

Select cost...

CULTURAL COMPLICATIONS M&M

Cost: \$ \$ \$

Effort: 1 2 3

Time: 1 2 3

Openness: 1 2 3

Maslow: 3

Respect & Inclusion

DIVERSITY, EQUITY, AND INCLUSION COMMITTEE

Cost: \$ \$ \$

Effort: 1 2 3

Time: 1 2 3

Openness: 1 2 3

Maslow: 3

Respect & Inclusion

HOLISTIC APPLICATION REVIEW

Cost: \$ \$ \$

Effort: 1 2 3

Time: 1 2 3

Openness: 1 2 3

Maslow: 3

Respect & Inclusion

IF WALLS COULD TALK

Cost: \$ \$ \$

Effort: 1 2 3

Time: 1 2 3

Openness: 1 2 3

Maslow: 3

Respect & Inclusion

Incorporating 20 minutes of discussion and education about biases into the traditional M&M conference

Domain(s): Faculty Engagement Mistreatment Organizational Culture & Values

Maslow: 3

Respect & Inclusion

Form a committee to assess the landscape of diversity, equity, and inclusion, provide guidance, and initiate action within the department

Domain(s): Faculty Engagement Mistreatment Organizational Culture & Values Resident Camaraderie

Maslow: 3

Respect & Inclusion

Strategies to evaluate residency applicants to emphasize mission-driven traits and increase diversity

Domain(s): Mistreatment Organizational Culture & Values

Maslow: 3

Respect & Inclusion

Intentionally choosing Department of Surgery decor to be more representative and inclusive.

Domain(s): Mistreatment Organizational Culture & Values

Maslow: 3

Respect & Inclusion



# Intervention: Wellness Toolkit



Coach: Cary Aarons, MD

## Holistic Application Review

BACK TO INTERVENTIONS

Strategies to evaluate residency applicants to emphasize mission-driven traits and increase diversity

Add to My Interventions

NO ☐ YES ☐

Cost  
\$

Effort  
👤👤👤

Time  
🕒🕒🕒

Maslow  
Respect & Inclusion

Domain  
Mistreatment  
Organizational Culture & Values

### WHAT?

- Understand how recruitment strategies impact your ability to match diverse applicants.
- Develop recruitment strategies to holistically evaluate applicants.

### WHY?

The ACGME Common Program Requirements mandates that programs must engage in practices that focus on ongo recruitment and retention of a diverse and inclusive workforce. [1] Based on a 2018 review of ERAS applications, a re general surgery residency programs with a stated interest in diversity found that identification as non-White race, significant independent predictor for decreased likelihood of interview selection (OR = 0.73, 95% CI 0.58-0.89). [2]

Traditionally used metrics to evaluate general surgery applicants, such as USMLE scores, are flawed based on racial/ USMLE performance, and have not been shown to correlate with residency performance.[3,4] Thus, the USMLE has a transition Step 1 to pass/fail by 2022. Similarly, AOA selection processes have been shown to disproportionately favor with some medical schools putting moratoriums on AOA nomination and/or closing their chapters.[5,6] This change opportunity for residency programs to transition to holistic application review.[7] Letters of recommendation and u interviews likewise are subject to "just like me" bias.[8] Various techniques may be helpful in attracting a diverse app particularly in the absence of traditional USMLE and AOA metrics.[9,10,11]

Organizational Culture and Values

Implementing specific recruitment strategies targeted at holistically evaluating residents ma ability to match applicants with skills and values that align with your department's. Furtherm diverse resident cohort makes a visible statement that diversity is important to your program

Mistreatment

By intentionally selecting and matching more diverse applicants, as well as applicants who h inclusion values, you may create a more welcoming environment for minority residents.

i. Letters of reference are non-standardized, can be highly subjective, and are sub of recommendation in the application process, consider potential biases that may be i instance, you may use this [gender bias calculator](#) that assesses the number of "female- letters. You may also use this [tip sheet](#) for avoiding gender bias in reference writing the letters of recommendation.

e. Consider how ALL applicants will add to a diverse and inclusive environment – no involvement in DEI initiatives at prior institutions, social determinant of health/health c that is welcoming increases URM applicants' sense of belonging and may facilitate fut

5. Limit the pieces of the application available to reviewers and/or interviewers.

a. Penn blinds application reviewers to applicants' test scores, grades, and race/ethn statement, and letters of recommendation.

6. Incorporate standardized questions into some or all of the interviews.

a. OHSU instilled prompts within their residency application that ask applicants to e diversity of the program if they were accepted.

b. The AAMC has provided best practice guidelines for equitable residency interview [Diversity & Inclusion Toolkit](#). [11] You may access the full guidelines at this [link](#).

### AAMC'S BEST PRACTICES FOR CONDUCTING RESIDENCY PROGRAM INTERVIEWS

Table 1. The Effects of Components of Structure on Reliability, Validity, Fairness, and Applicant Reactions

Content	Reliability	Validity	Fairness	Applicant Reactions
Ask questions that are job-related	+	+	+	+
Ask all applications questions that cover the same topics	+	+	+	+
Limit probing questions	+	+	+	+
Use behavioral or situational questions	+	+	+	+
Use a longer interview	+	+	+	+
Have no access to applicant information before or during interview	+	+	+	+
Have applicants not ask any questions	+	+	+	+
Evaluation				
Rate each answer or use multiple rating scales	+	+	+	+
Use defined rating scales	+	+	+	+
Take detailed notes	+	+	+	+
Use multiple interviewers	+	+	+	+
Use the same interviewers for all applicants	+	+	+	+
Have no discussion between interviewers	+	+	+	+
Train interviewers	+	+	+	+
Use formulas to create interview total scores	+	+	+	+

Notes: "+" means overall positive effect, "-" means overall negative effect, and blank cells mean insufficient research on the effect of the intervention. Reliability refers to the extent to which the evaluation process is consistent and candidate responses are evaluated consistently. Validity refers to the accuracy of inferences made from interview scores. Source: Adapted from Campion et al. (1997) and Levenshine et al. (2014).

## Diversity Engagement Survey (DES)

The DES was developed as a validated, benchmarking tool that allows institutions to assess their engagement and inclusion efforts and develop a strategy for achieving their diversity goals. The authors emphasize the importance of starting with an understanding of the extent to which individuals currently feel included and engaged in order to build institutional capacity for diversity.

Response scale: Respondents indicate their agreement to the statements using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree)

Survey Items:

1. I trust my institution to be fair to all employees and students.
2. The leadership of my institution is committed to treating people respectfully.
3. I am valued as an individual by my institution.
4. I feel that my work or studies contribute to the mission of the institution.
5. This last year, I have had opportunities at work/school to develop professionally.
6. At work/school, my opinions matter.
7. In this institution, I have opportunities to work successfully in settings with diverse colleagues.
8. Someone at work/school seems to care about me as an individual.
9. There is someone at work/school who encourages my development.
10. I receive recognition and praise for my good work similar to others who work at this institution.
11. I believe my institution manages diversity effectively.
12. In my institution, I experience respect among individuals and groups with different backgrounds.
13. If I raised a concern about discrimination, I am confident my institution will take appropriate action.
14. I consider at least one of my coworkers or fellow students to be a trusted colleague.
15. In my institution, I receive support for working with diverse groups and individuals.
16. In my institution, I am confident that my accomplishments are compared to others who have achieved their goals.
17. I feel connected to the vision, mission and values of this institution.
18. I believe that my institution reflects a culture of civility.
19. I believe that in my institution harassment is not tolerated.
20. In this institution, there are opportunities for me to engage in service or outreach.
21. I feel that I am an integral part of my department or school.
22. The culture of my institution is accepting of people with different ideas.

Reference: Person SD, Jordan CG, Allison JJ, Ogawa LM, Castillo-Page L, Co MA, Plummer DL. Measuring diversity and inclusion in academic medicine: The engagement survey (DES). Academic medicine: journal of the Association of A Colleges. 2015 Dec;90(12):1675.

Available at: <https://www.aamc.org/system/files/c/2/498820-measuringdiversityandinclusioninacademicmedicine.pdf>



## General Surgery Residency Interview Selection Committee Application Evaluation Form

Applicant Name: \_\_\_\_\_  
Undergraduate School: \_\_\_\_\_  
Medical School: \_\_\_\_\_  
Advanced Degrees: \_\_\_\_\_

Please rate ALL of the following 1 to 5.

	Score	Scale
1. Academic Achievement/Academic Potential		1 = Serious concerns
2. Quality of Research/Intellectual Curiosity		2 = Below average
3. Capacity for Leadership		3 = Average
4. Teamwork and Altruism		4 = Above average
5. Motivation for Surgery		5 = Excellent
6. Strength of Letters of Recommendation		

Reviewer Name: \_\_\_\_\_

Invite for Interview?

- ☐ Yes  
☐ No  
☐ Hold for Re-Review

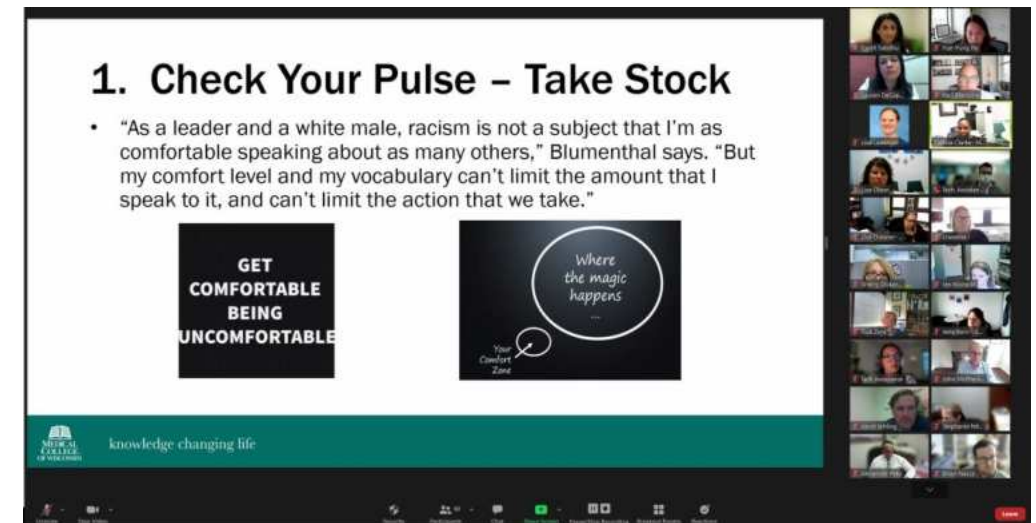


@yueyunghu  
@SENTteam



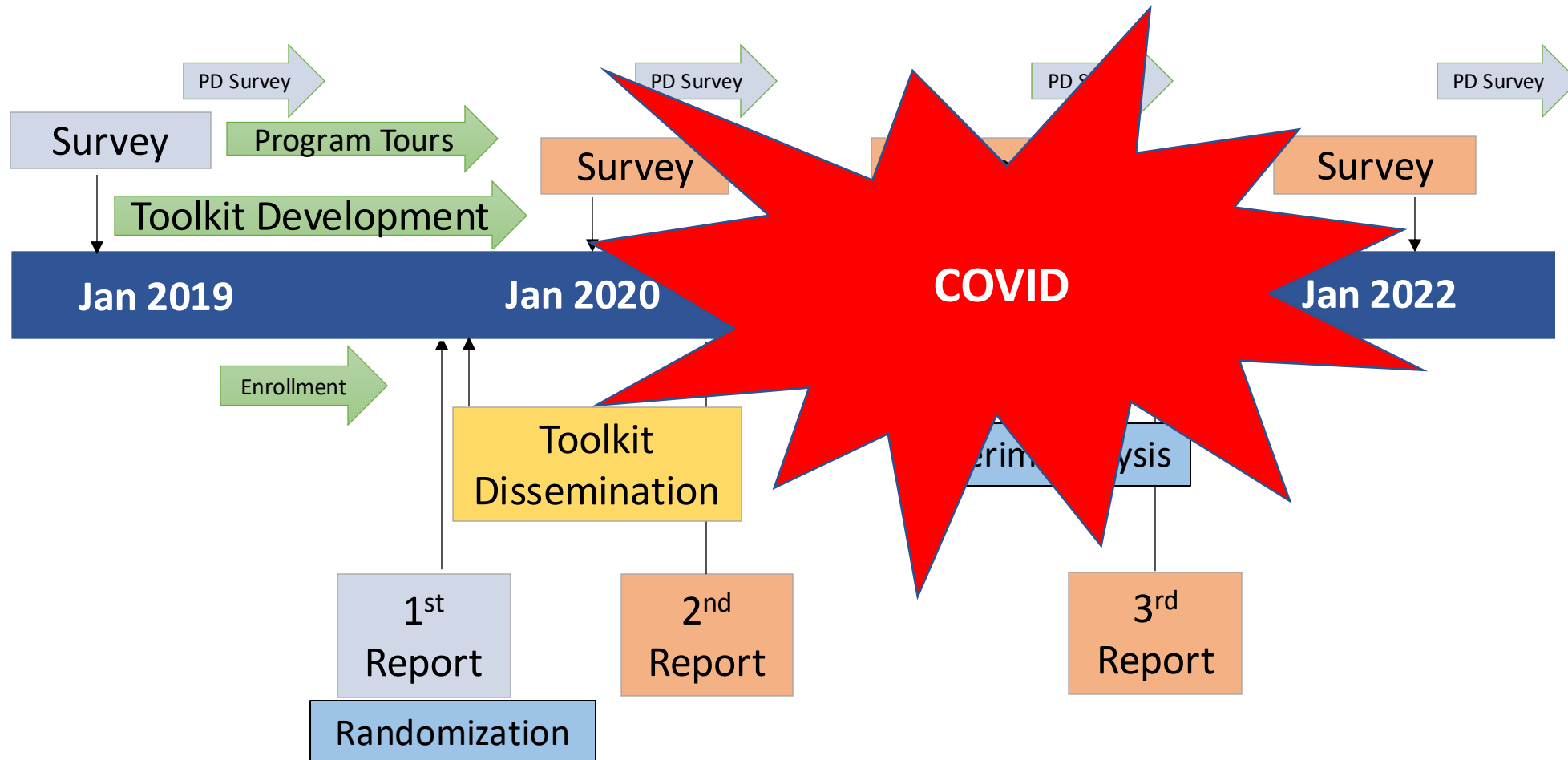
# Intervention: Implementation Support

- Webinars
  - 25 interventions
  - 330 attendees
  - 77 institutions
- Working groups
- Newsletters
- Virtual conference
- In person workshops
- 38 1:1 virtual & in person office hours
- Dashboard





# SECOND Trial Timeline



# Wellness Failure #1

- Residency yoga at 7 pm on Wednesdays





HAVE YOU CONSIDERED  
TAKING UP YOGA?



THE  
NEW YORKER

# Wellness Failure #1

- Residency yoga at 7 pm on Wednesdays

“Everyone got emails like, ‘Why aren’t people going to yoga?’ which then puts the burden on the resident, like, ‘Why aren’t you helping your wellness by going to yoga?’ There was the blame: ‘Do we need a yoga champion so that people go to yoga?’”

– Resident





# Lessons Learned About Well-Being

1. It's about meaning, not hours
2. No wellness without inclusion
3. Don't ignore the system
4. Wellness is self-defined
  - Need options
  - Can't be a checkbox

"It's really important for the residents to have a voice in what they're doing because otherwise, they would just perceive it as people telling them to do something else. It can be onerous. They don't have buy-in. They don't have ownership over it. They're not excited about it."

– Attending



# Wellness Failure #2

- A lecture series on wellness

“It turns out that because of the basic needs that weren't being met, they didn't really feel like having another 60 minute facilitated discussion about wellness...People wanted lockers, they wanted better call rooms, they wanted meal tickets for when they're on call...Until that was satisfied, we really couldn't have more abstract discussions about things that are peripheral to wellness.”

– Program Director







# Lessons Learned About Well-Being

1. It's about meaning, not hours
2. No wellness without inclusion
3. Don't ignore the system
4. Wellness is self-defined
5. Meet people where they are



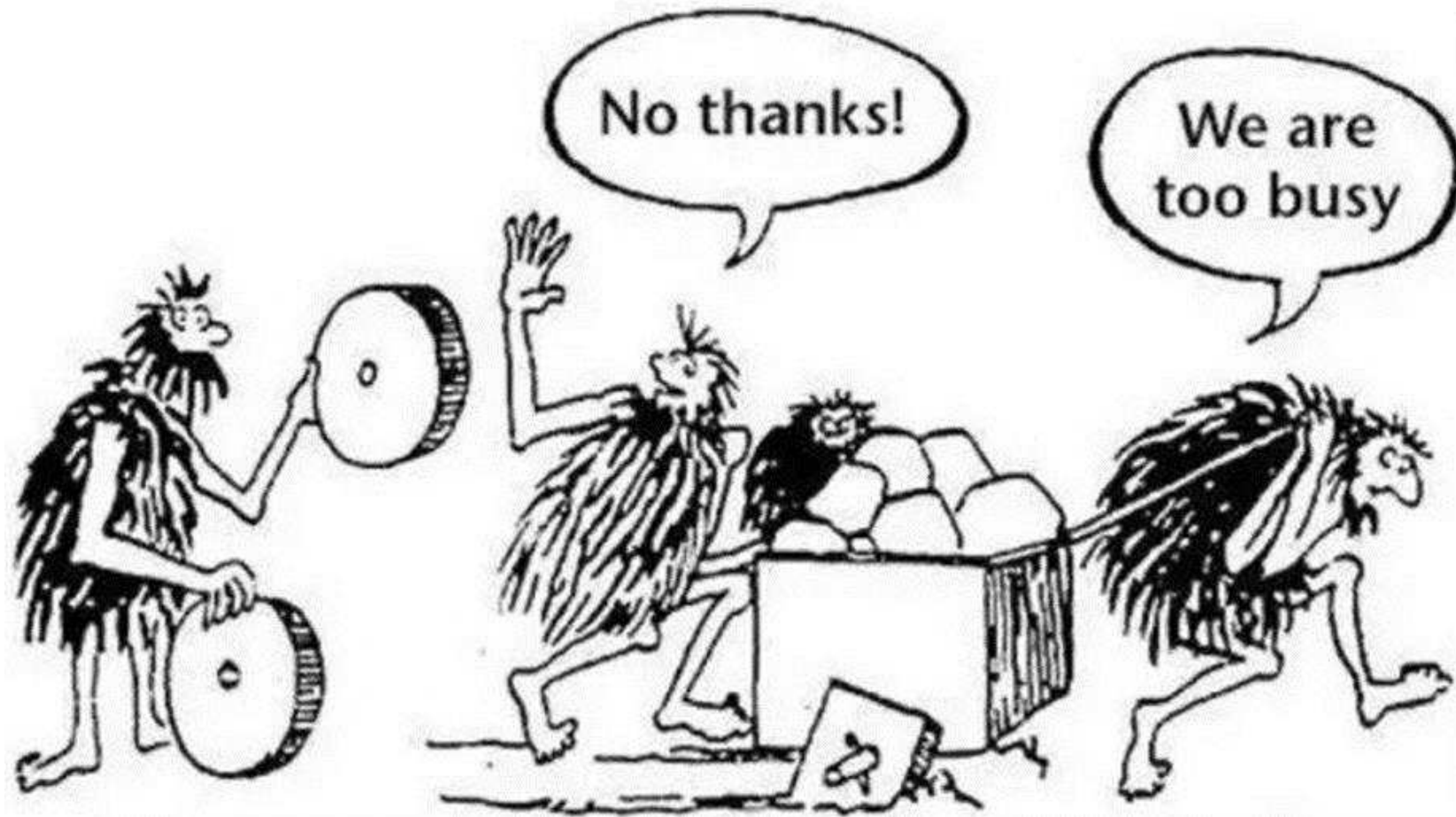
# Wellness Success #1

- Birthday cards
- Birthday emails





# Lessons Learned About Well-Being



6. It doesn't have to be hard



@yueyunghu  
@SENTteam



# Wellness Success #2



Leadership



## What Bosses Gain by Being Vulnerable

“It’s a once a month thing, and it’s made a huge difference. Even though it’s a small thing...it’s...dramatically shifted our structure in the way that we relate to each other.”  
– Resident

“What the residents need is to think that people are investing in their well-being. And that doesn’t really cost anything.”  
– Chair





# Lessons Learned About Well-Being

---

## 7. Radical transparency builds trust



@yueyunghu  
@SENTteam



# Data Transparency in Intervention Programs

- 88% of PDs shared report with residents
- 89% of PDs shared report with faculty



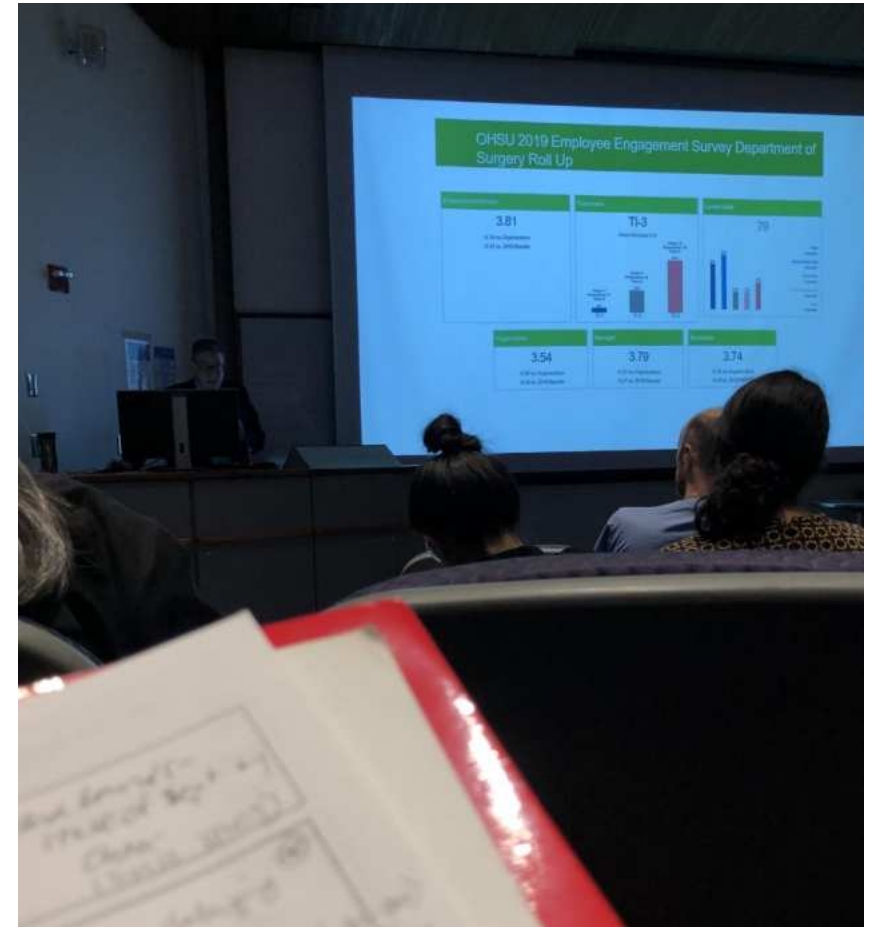
# Lessons Learned About Well-Being

## 7. Radical transparency builds trust

- Acknowledges issues
- Demonstrates care

## 8. Prioritize voice & agency

- Ask what it means
- Ask what to do
- Listen (not just to argue/defend)





# Program Responsiveness

“My residents are phenomenally talented...Part of the reason I think our [program] is really effective is we’ve tried to empower them. ‘What do we need? Ok, if this isn’t working, what would you do? What do you think is better?’ – PD

	Program Responsiveness
Burnout	OR = 0.47
Attrition thoughts	OR = 0.32
Suicidality	OR = 0.52

	Program Responsiveness
Faculty mentorship	OR = 2.64
Input into call & vacation schedules	OR = 3.31
Comfort speaking up	OR = 4.20

Org  
Culture  
& Values



Rachel Joung, MD  
*J Surg Ed 2022*







# Lessons Learned About Well-Being

1. It's about meaning, not hours
2. No wellness without inclusion
3. Don't ignore the system
4. Wellness is self-defined
5. Meet people where they are
6. It doesn't have to be hard
7. Radical transparency builds trust
8. Prioritize voice & agency



# THIRD

## Trial to Harness Inclusion to build Resilient Departments of surgery

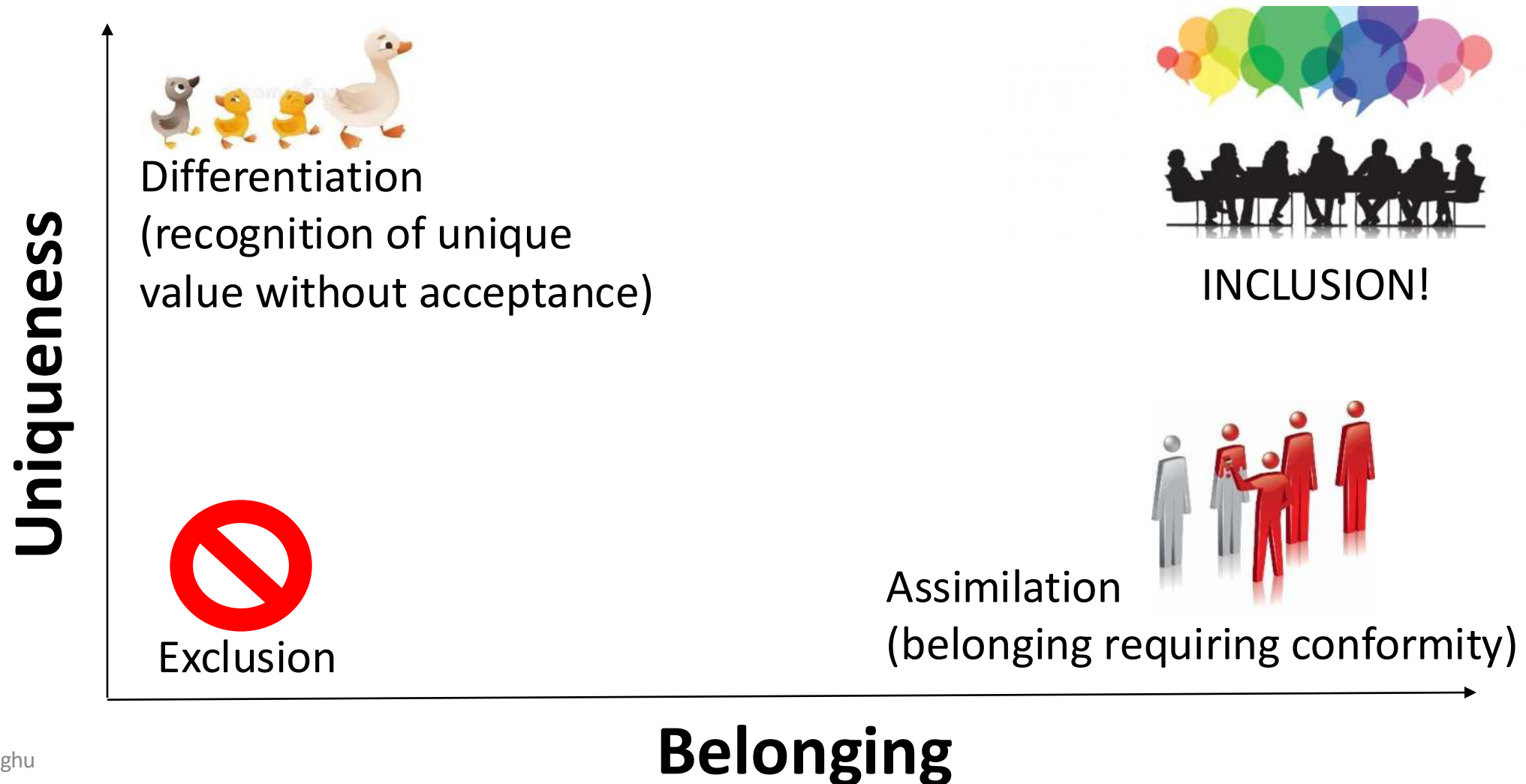


- Inclusion
- Faculty Well-Being





# Inclusion = Belonging & Valued Uniqueness





# Lack of Inclusion Drives Lack of Diversity

“When I [interviewed], I thought that they were...intellectually serious...and respected...differences among each other, and weren't very focused on one identity as a program...I wanted a place where people could research what they wanted to research, they could have hobbies that they wanted to have...The people I met here weren't all doing the same thing...People had families or they didn't...They liked physical sports, or they didn't...It just didn't seem a place where you had to be a certain way to fit in.”



– Resident





# Inclusion Efforts in Medical Education



Individual  
Skills



Individual  
Beliefs &  
Behaviors

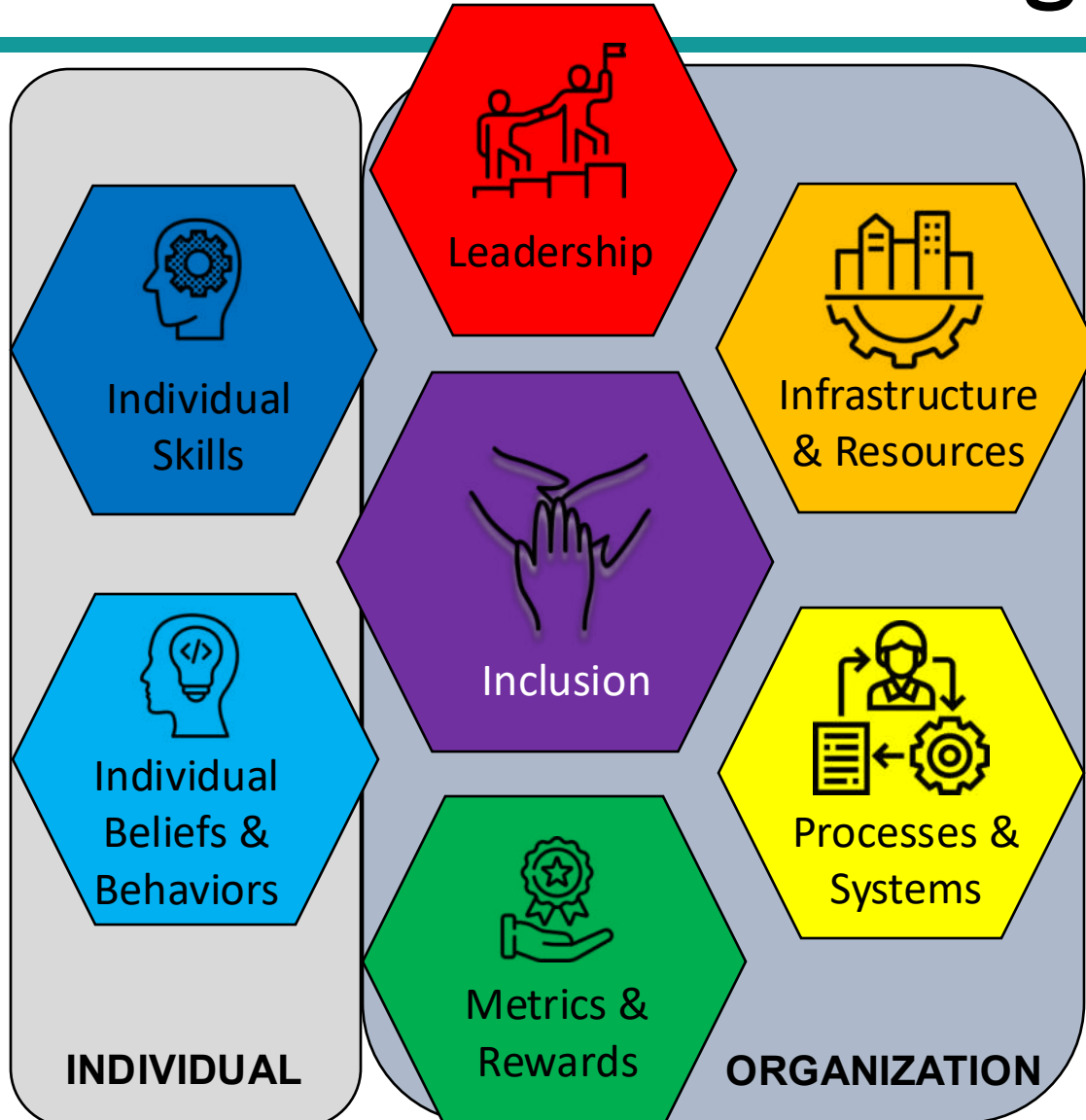
**INDIVIDUAL**

[Hospital] mandated... implicit bias training...and the School of Medicine also... and...as a department of surgery...So unfortunately, all this hit people at the same time...Everyone had three different versions of implicit bias training. They did it over and over again. – VC DEI

- Data on implicit bias training is not good
  - No relationship between hours of training and explicit or implicit bias expression in residency  
*Onyeador et al, Psychol Sci 2020*
  - Implicit biases & associated behaviors highly resistant to change  
*Lai et al, J Exp Psychol Gen 2016*  
*Forscher et al, J Pers Soc Psych 2019*
  - Training may be actively counterproductive
    - Normalizes & reinforces biases
    - Reduces perceptions of harm/accountability, support for efforts to combat  
*Legault et al, Psychol Sci 2011*  
*Daumeyer et al, J Exp Soc Psych 2019*



# What We're Missing: The Organization

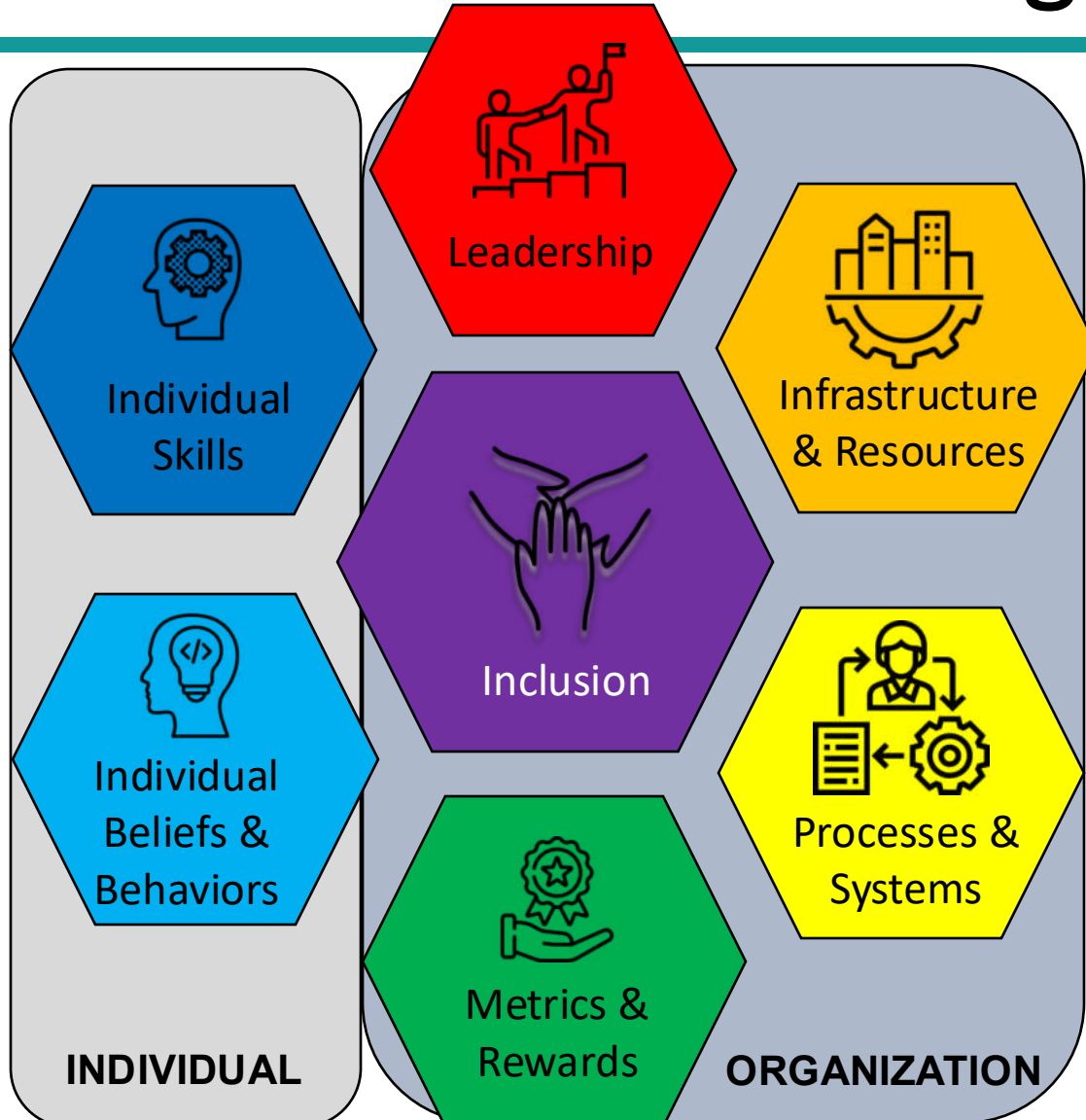


- Organizational culture
  - Shared & fundamental beliefs
  - Normative values
  - Related social practices
- Organizational policies & practices
  - Reflect & reinforce culture
  - Lay critical groundwork for inclusive behavior

*Stephens, Res Org Behavior 2021*  
*Maitland & Steele, INdivisible 2020*



# What We're Missing: The Organization



## An Example: Pregnancy & Parenthood in Surgical Residency



**Ruojia (Debbie) Li, MD**  
*JAMA Surg 2024*



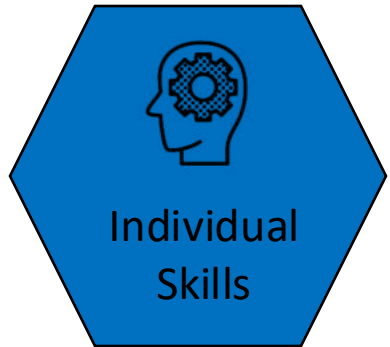
**Lauren Janczewski, MD**



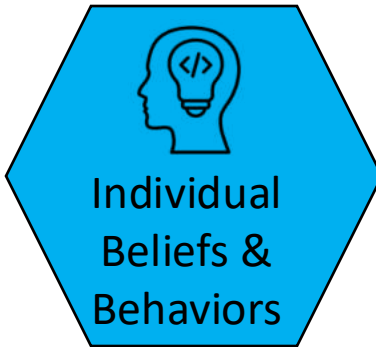
**Erika Rangel, MD**



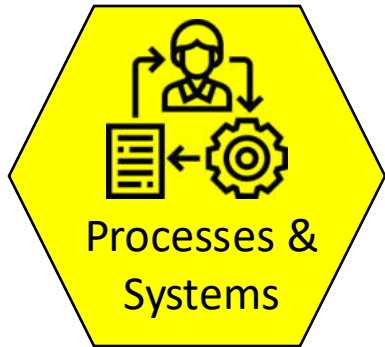
# Lots of Education & Policy



Individual  
Skills



Individual  
Beliefs &  
Behaviors



Processes &  
Systems

- Lots of attention
- ABMS/ABS parental leave policy
- Institutional lactation policies

*Livingston-Rosanoff, Ann Surg 2019*

46.8% of women still delay childbearing due to surgical residency!

*Li, JAMA Surg 2024*



@yueyunghu  
@SENTteam



# Need a Better Metric than Presenteeism



I don't feel that issue of, 'You're a bad mom because you're working.' But I definitely feel the reverse of that...You're a bad worker because you're a mom. – Resident



## What's Really Holding Women Back?

It's not what most people think. by Robin J. Ely and Irene Padavic

From the Magazine (March–April 2020)

# Need Better Childcare Infrastructure



You can't really pay for a good daycare on a resident's salary... You're dependent on your partner either having a good enough job that they can pay for those things or not working.

– Faculty



Darci Foote, MD



Ruojia (Debbie) Li, MD



Lauren Janczewski, MD



Erika Rangel, MD

# Need Leaders to Normalize Prioritizing Family



40 years ago, no one gave a sh\*t if I spent time with my kids...The way I was a good husband is: I was going to be a surgeon.  
– PD



Darci Foote, MD



Ruojia (Debbie) Li, MD



Lauren Janczewski, MD



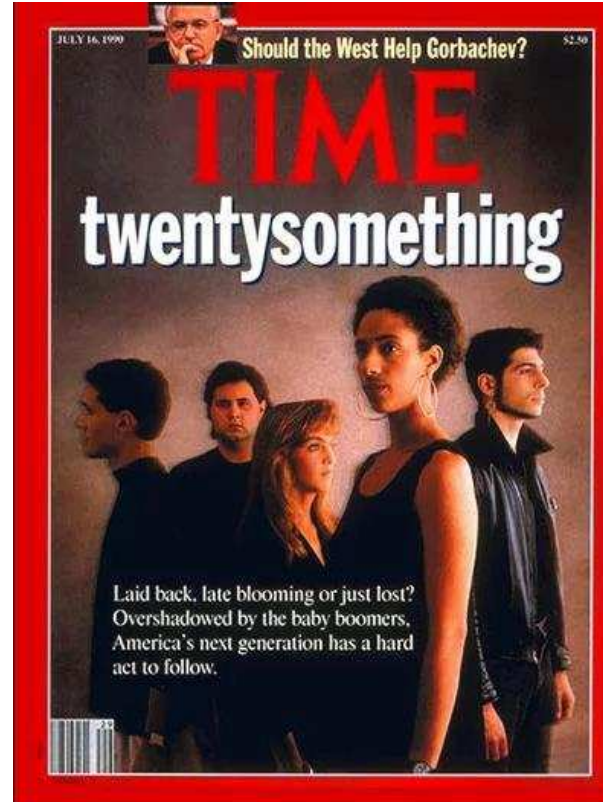
Erika Rangel, MD



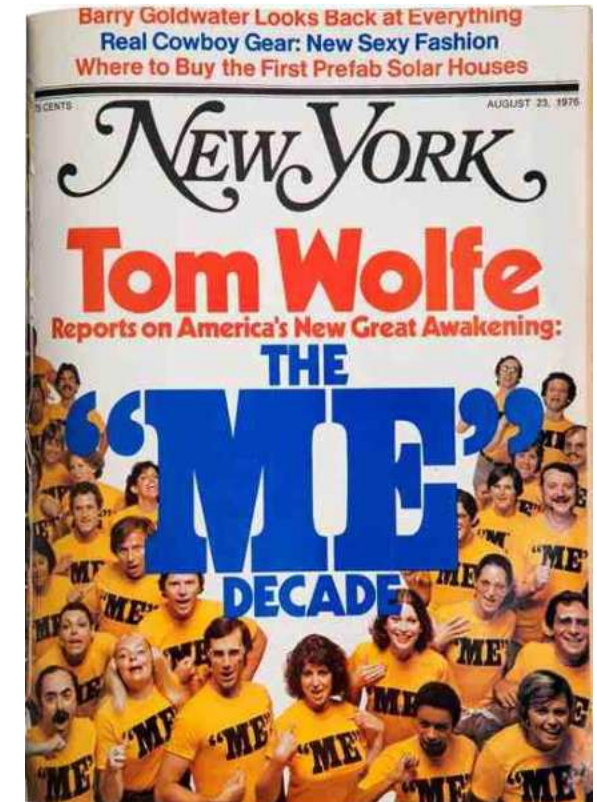
# Is It Generational?



2013



1990



1976



@yueyunghu  
@SENTteam





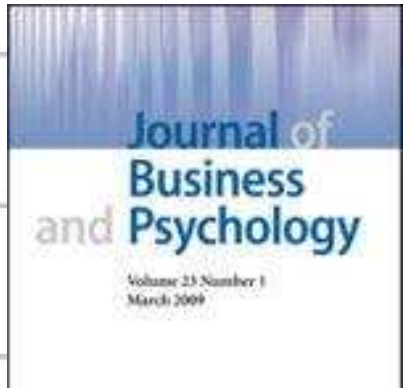
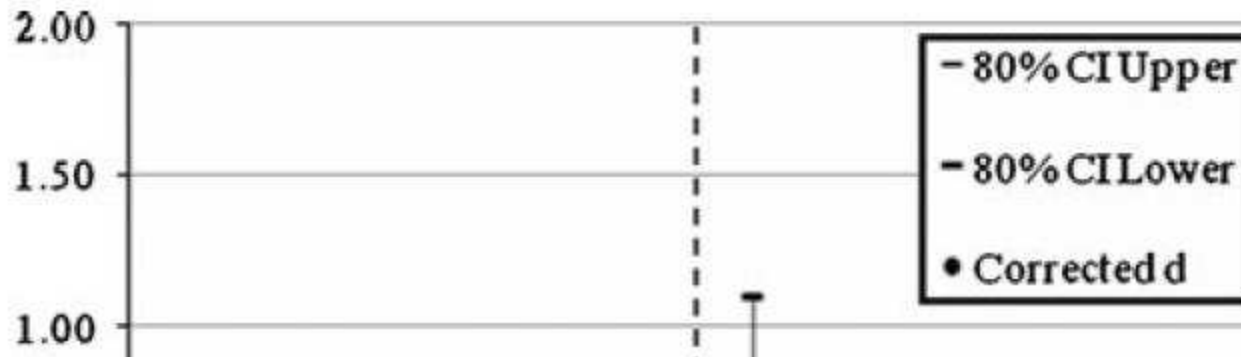
# Is It Generational?

---

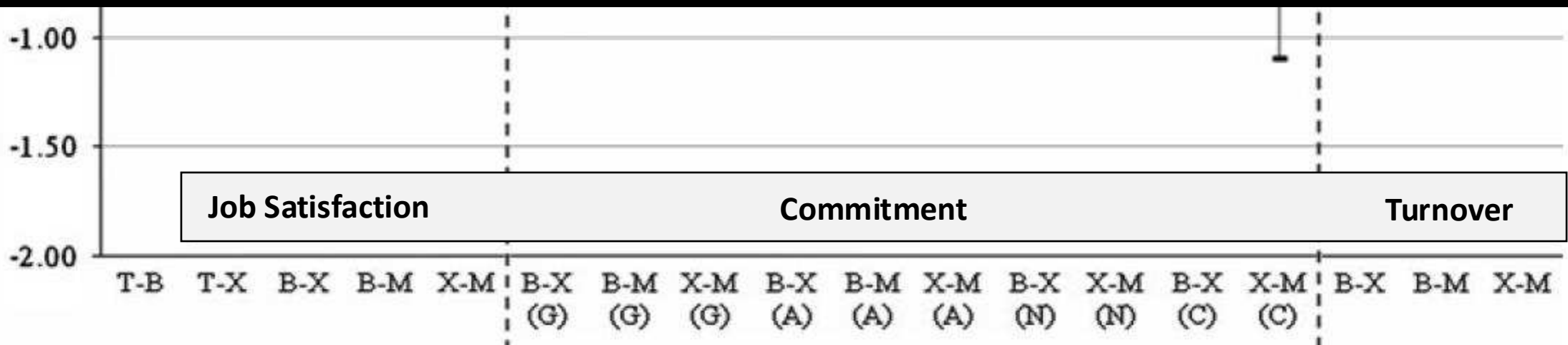
“The children now love luxury; they have bad manners, contempt for authority; they show disrespect for elders. They contradict their parents and tyrannize their teachers.”

- Socrates (~400 B.C.)





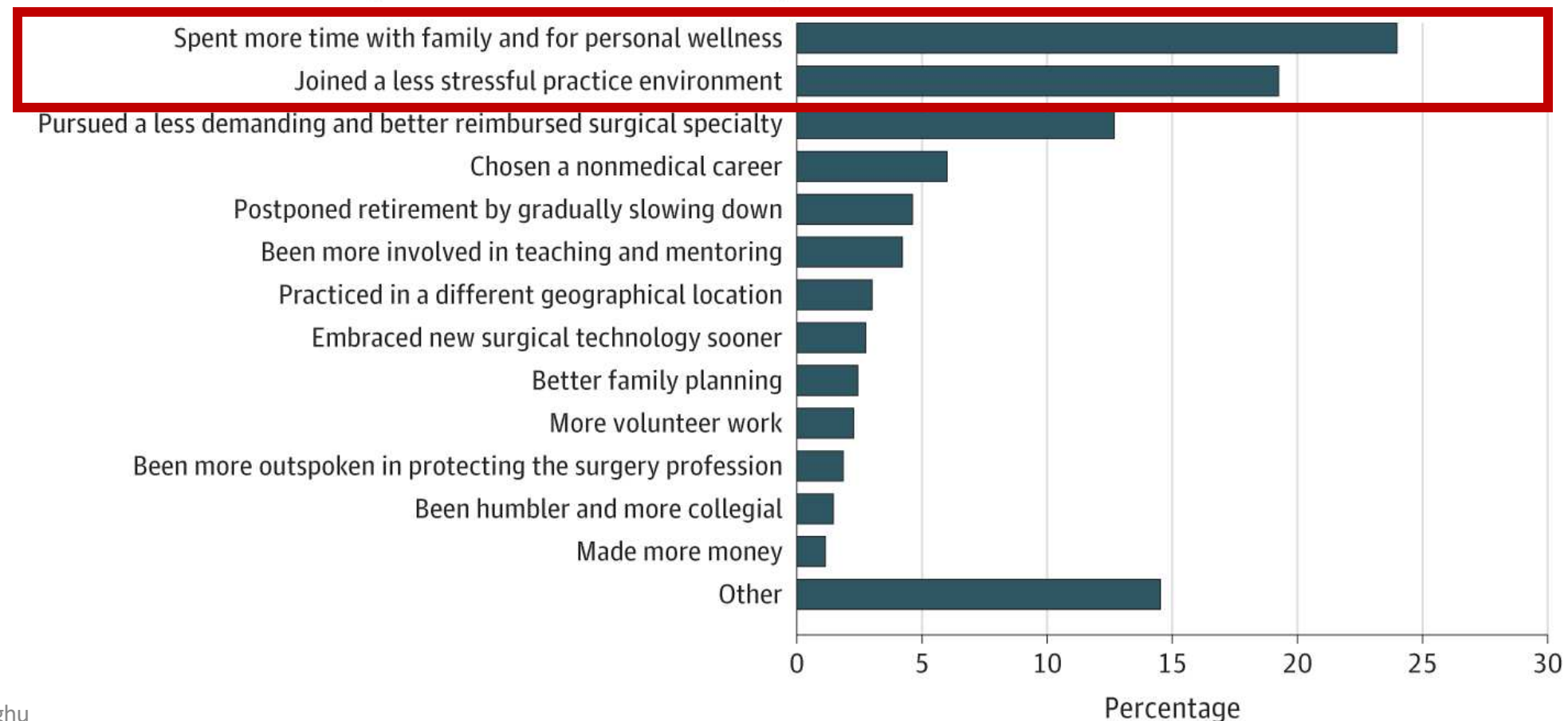
“...meaningful differences among generations probably do not exist, and the differences that appear to exist are likely attributable to factors other than generational membership”





# Retired Surgeons Regret Inattention to Wellness

## What would you have done differently?



Why should  
hospitals care  
about faculty  
well-being?







# The Business Case

## JAMA Internal Medicine

December 2017

### The Business Case for Investing in Physician Well-being

Tait Shanafelt, MD<sup>1</sup>; Joel Goh, PhD<sup>2,3</sup>; Christine Sinsky, MD<sup>4</sup>

- Attrition is expensive
  - Direct costs of recruitment ~\$88k
  - Lost revenue during recruitment, onboarding, and ramping up ~\$990k/FTE
  - Cost of patient transitions?
  - Increases risk of turnover of all other members of care team for 12 mo



@yueyunghu  
@SENTteam



# The Business Case

## JAMA Internal Medicine

December 2017

### The Business Case for Investing in Physician Well-being

Tait Shanafelt, MD<sup>1</sup>; Joel Goh, PhD<sup>2,3</sup>; Christine Sinsky, MD<sup>4</sup>

- Decreased productivity is expensive
  - 1 point increase in burnout associated with 30-50% increase in likelihood that physician will reduce professional work effort in the next 24 mo
  - Burnout reduces academic productivity by ~15%



@yueyunghu  
@SENTteam



# The Business Case

- Happy people are more productive (12%)

*Oswald, J Labor Econ 2015*

“If I have people who are happy, who like being here, they actually work harder...I feel like they would do anything that I asked, even at expense to themselves, because they felt that way.”

– Chair





# The Quality & Safety Case



## Burnout and Medical Errors Among American Surgeons

*Tait D. Shanafelt, MD,\* Charles M. Balch, MD,†‡ Gerald Bechamps, MD,†§ Tom Russell, MD,†  
Lotte Dyrbye, MD,\* Daniel Satele, BA,\* Paul Collicott, MD,† Paul J. Novotny, MS,\* Jeff Sloan, PhD,\*  
and Julie Freischlag, MD†‡*

- 1 point increase in depersonalization associated with 11% increase in likelihood of reporting error
- 1 point increase in emotional exhaustion associated with 5% increase in likelihood of reporting error
- No effect of # call nights/week, practice setting, compensation plan, number of hours worked





# The Quality & Safety Case

December 9, 2020



## Association of Physician Burnout With Suicidal Ideation and Medical Errors

Nikitha K. Menon, BA<sup>1</sup>; Tait D. Shanafelt, MD<sup>2</sup>; Christine A. Sinsky, MD<sup>3</sup>; [et al](#)

- Burnout associated with 44-48% greater odds of reporting error

September 6, 2006



## Association of Perceived Medical Errors With Resident Distress and Empathy A Prospective Longitudinal Study

Colin P. West, MD, PhD; Mashele M. Huschka, BS; Paul J. Novotny, MS; [et al](#)

- 1 point increase in DP associated with 10% increase in odds of reporting error in the next 3 months
- 1 point increase in EE associated with 7% increase in odds of reporting error in the next 3 months



@yueyunghu  
@SENTteam





## 6. It Doesn't Have To Be Hard



- Emotions, happiness, and burnout are contagious

*Petitta, Stress Health 2017*  
*Fowler, BMJ 2008*

- Guidance from org psych





# Faculty Wellness

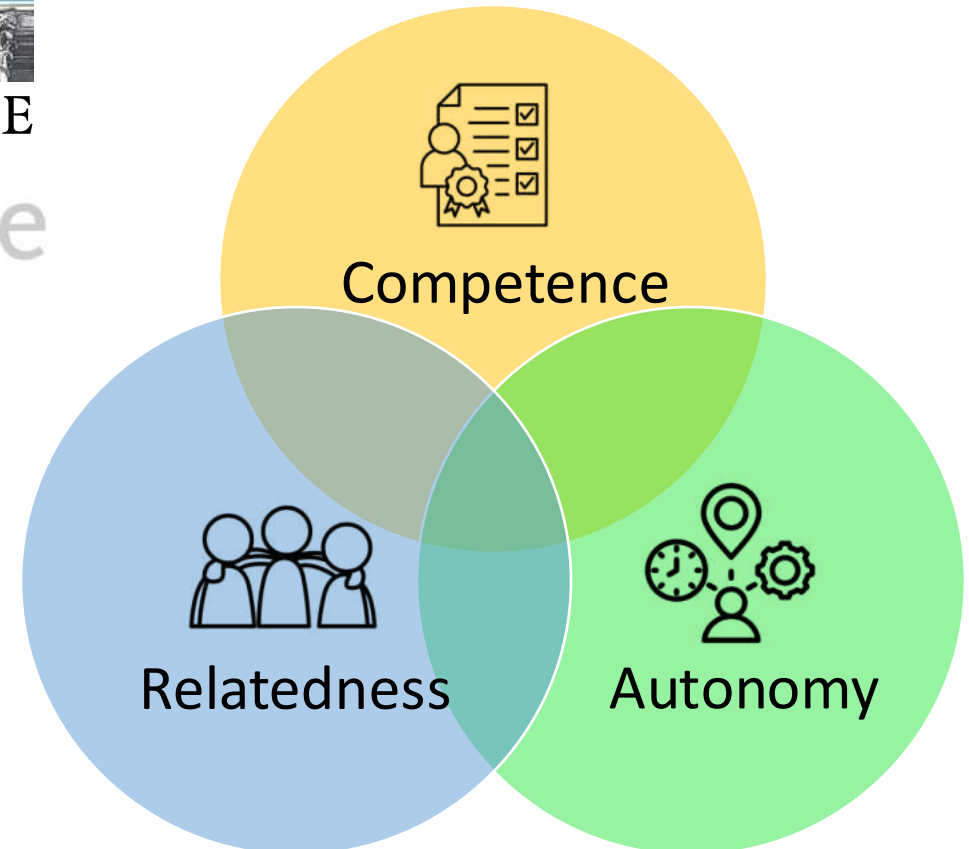


*The* NEW ENGLAND JOURNAL *of* MEDICINE

Perspective  
JUNE 25, 2020

## Physician Burnout, Interrupted

Pamela Hartzband, M.D., and Jerome Groopman, M.D.



@yueyunghu  
@SENTteam



# Competence



Competence

## Individual

- Sense of efficacy
- Professional growth

## Organizational

- Efficiency
- Resources
- Support – e.g., after complications





### 3. Don't Ignore the System



- Organizational inefficiency underlies low self-efficacy
- Burnout derives from futility & compensating for gaps in the system

Kanin

*"Hey, Sisyphus, when you've got a minute I'd like to discuss this progress report with you."*



@yueyunghu  
@SENTteam



# Systems Approach: Increase Efficiency

“Somewhere along the way, the administrators figured out that the whole goal of the whole operation should be to expedite and facilitate surgery. You would never ever want to tell a patient, ‘You can't have surgery tomorrow because there's not enough beds’...People aren't going to beat their heads against the wall in that system...There is extraordinarily low turnover here among the surgeons.”

– Faculty







# Relatedness



## Individual

- Collegiality
- Shared mission
- Inclusion

## Organizational

- Aligned incentives
- Servant leadership
- Recognition & appreciation





# Focus on Individual RVUs Hinders Collegiality

He had a partner, and he would try to help her. She had 4 nannies, her husband was a fellow, and she would be like, 'No, no, no, no. Those are my RVUs; don't touch them.' And that was the behavior, because everybody was just trying to get RVUs. It was just really toxic." –Chair





# Systems Approach: Incentivize Teamwork

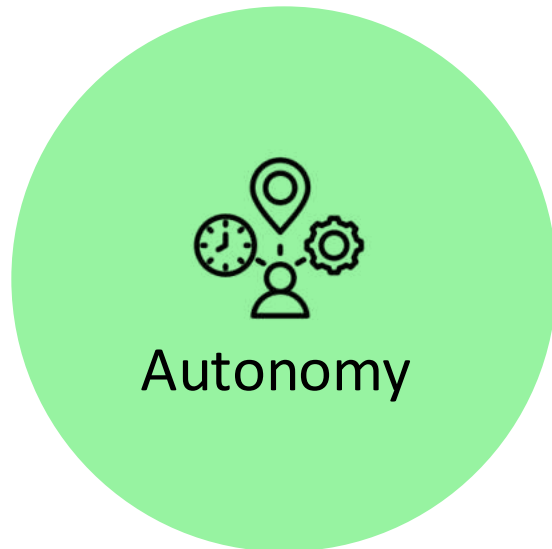
We just redesigned our comp plan... [In the] Division Model...they have a divisional RVU target...I predict that the people... are going to be much happier than the people who have these individual targets...They're not competing...I have another division who...have five different values per work-RVU based on practice. So, it's effectively still a collections-based model, more or less. And that's the group that competes the most, too – the most unhappy.”

–Chair





# Autonomy



## Individual Control

- Work product
- Work scheduling
- Work processes

## Organizational

- Respect
- Flexibility
- Responsiveness to feedback





# 1. It's About Meaning

- Financial incentives do not provide meaning

“I long ago lost my love of this job because it has become about making money for the hospital instead of about patient care.” – Faculty

“[The] issue of RVUs where you're given a target, and you're constantly checking...[a] checkbox of metrics where you feel like you're constantly failing in some ways; [it] is really demoralizing.” – Chair







# 1. It's About Meaning



“The finances have changed...People are expected to work all the time to generate the RVUs and the income...But it's very hard to balance that...Burnout comes from feeling like you're just physically unable to keep it up...Doctors, we're driven by guilt and responsibility and ethical obligation... And so when your boss asks you to be on a committee or you are trying to publish a paper...but then the patient is sick and you have to go to the operating [room]...you somehow have to do it all and stay up all night and write the paper...”

– Faculty





# Work Meaningfulness

- Job satisfaction
- Career clarity
- Personal fulfillment
- Life satisfaction
- Work engagement
  - Work effort
- Job performance
  - Work efficacy
- Organizational commitment
  - Citizenship behaviors
- Innovation/creativity
- Customer/client satisfaction

*Weinstein & Finkel, in press.*



@yueyunghu  
@SENTteam



# Systems Approach: Autonomy

- 8. Prioritize voice & agency
  - Autonomy reflects respect and trust
    - Clinic templates
    - Program building
- 7. Radical transparency builds trust
  - Open discussions
- What is an FTE?
- How to recognize/value work that advances the nonclinical mission?





# Intervention: Data Reports

- Resident & faculty
  - ACGME survey
  - ABSITE survey
- Leadership
  - Priorities
  - Inventory of policies & practices
- Centralized review of primary data?
  - NLP of evaluations
  - Faculty demographics & promotion/attrition statistics





# Org Psych Interventions: Individual

- Intergroup Contact
- Countering Stereotypes
- Perspective Taking
- Superordinate Identity

*Stephens, Res Org Behavior 2021*

## Cultural Complications M&M

### Case Study

A patient complains to the female chief resident that he "hasn't seen a doctor in 5 days" despite her rounding on him every morning

Microinsult: the tacit assumption is that a woman could not be leading a team

Issues to discuss:

- How should the attending assert her role as leader without undermining the doctor-patient relationship?
- What implication could this bias have in terms of the patient following the proposed treatment plan?
- What is the responsibilities of the people observing this interaction to intervene, and how do they do that in a patient centered way

*Harris CA, Ann Surg 2021*



@yueyunghu  
@SENTteam





# Org Psych Interventions: Organizational

- Diversifying Opportunity
- Increasing Transparency
- Making Evaluation More Systematic
- Increasing Accountability

*Stephens, Res Org Behavior 2021*

**Forbes**

## Culture Fit Versus Cultural Add: Hiring For Growth

Louis Montgomery Jr. Forbes Councils Member

### Culture-Fit Hiring Hinges On Implicit Bias

We all have implicit biases. Being able to categorize people

humans survive. Unfortunately, the

inst us. And in the case of workplace

ainst the success of our businesses

fine, so when companies hire for cu

ing on their implicit biases both for

hires. As a result, hiring managers

**BIAS INTERRUPTERS** *small steps  
big change* **WORKLIFE  
LAW**

– Designing the Performance Evaluation Form

• **Begin with clear and specific performance criteria directly related to job requirements.**

Try: "She writes maintainable code, tests her work thoroughly, offers clear and useful suggestions, reviews, and communicates well with clients to gather requirements," instead of: "She's a great person."

• **Require evidence from the evaluation period that justifies the rating.**



@yueyunghu  
@SENTteam



# Implementation Support

- Minimum commitment?
- Learning collaborative & coaching
  - Vice chairs of DEI
  - Department chairs
- Centralized resources
  - National Grand Rounds
  - Community
  - ARMOR





# Centralized Resource: Community

- Non-white or Hispanic residents less likely to report a mentor who genuinely cares about them and their career (OR 0.81, 95% CI 0.71-0.91) *Silver, JAMA Surg 2024*
- AAS-SECOND National Mentorship Network
  - 151 residents matched to external mentors, 98% minoritized identity
  - 97% honest advice
  - 64% emotional support
  - 58% new opportunities
- Peer groups



Tarik Yuce, MD, MS



Casey Silver, MD



Callisia Clarke, MD  
AAS President-Elect



The Society of  
Black Academic Surgeons  
Established 1989



Imani McElroy, MD



@yueyunghu  
@SENTteam



# Centralized Resource: ARMOR

- Referrals from PDs, self-referrals
- Independent assessment & recommendations
- Meaningful remediation
- External mentorship & coaching teams
- Liaison with program



**William McDade, MD**  
Chief DEI Officer, ACGME



**Callisia Clarke, MD**  
AAS President-Elect



**Bonnie Mason, MD**  
Director of DEI, ACS



**Melissa Hogg, MD**







# Our Research Fellows



Ryan Ellis, MD, MS



Brock Hewitt, MD



Tarik Yuce, MD, MA



SchMiyah Smith,  
MS, MD



Rhami Khorfan, MD



Brian Nasca, MD



Andrew Hu, MD



Joseph Sanchez, MD



Ray Ramirez, MD



Lindsey Zhang, MD, MS



Meixi Ma, MD MS



Brian Brajcich, MD



Maya Hunt, MD



Bona Ko, MD, MPH



Casey Silver, MD



Ruojia Debbie Li, MD



Egide Abahuje, MD



Radha Patel,  
MD Candidate



Rachel Joungh, MD



Michael Visenio, MD



Kimberly Golisch, MD



Sam Warwar, MD



Jennifer Delgado, MD



Darci Foote, MD



Eric Pillado, MD



Evan Heiderscheit, MD



George Javitch,  
MD Candidate



Lauren Janczewski,  
MD



Charesa Smith, MD



Suhail Zeineddin,  
MD



Asia Swinarska, MD



Chelsea Fischer,  
MD, MS



Matthew Chia, MD



Cary Jo Schlick,  
MD, MS



Rhea Verma,  
MD Candidate





# SENT Team



Daniela Amortegui, MS  
Project Manager



Joshua Eng, PhD  
Statistical Analyst



Julie Johnson, PhD  
Qualitative Research



Natalia Mackiewicz  
Research Assistant



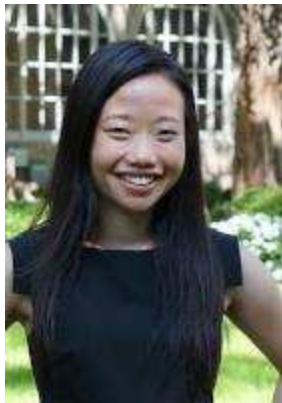
Nathan Monson  
Web Developer



Tiannan Zhan, MS  
Statistical Analyst



Gaurava Agarwal, MD  
Psychiatry



Elaine Cheung, PhD  
Psychology



Charity Glass, MD, MPH  
Co I



Callisia Clarke, MD  
Co I



Amy Holmstrom, MD  
Co PI



Karl Bilimoria, MD, MS  
Co PI

# Thoughts?



[yueyunghu@luriechildrens.org](mailto:yueyunghu@luriechildrens.org)

[SENT@iu.edu](mailto:SENT@iu.edu)

