

# The Imperative for Incorporating Mind-Body Medicine in Health Professions Education

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# Outline

- Stress and burnout in medical trainees: *Today's reality*
- Physiology of stress response: *Scientific insights*
- Mind-body Medicine at GU: *Ancient tools for modern issues*
- Lessons Learned: *Time for Courage and Leadership*

# Take Home Messages

- ➡ Physician stress and burnout are serious issues that are widely prevalent and preceded by *declines in empathy and well-being* during medical school.

# Take Home Messages

- Physician stress and burnout are serious issues that are widely prevalent and preceded by *declines in empathy and well-being* during medical school.
- Medical schools have a responsibility to prepare their graduates for the rigors of the profession by developing *curricular interventions* that help students and faculty manage stress, foster empathy and build resilience, and incorporating those interventions into the *culture* of the institution.

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# Distress Among Matriculating Medical Students Relative to the General Population

Chantal M.L.R. Brazeau, MD, Tait Shanafelt, MD, Steven J. Durning, MD, PhD, F. Stanford Massie, MD, Anne Eacker, MD, Christine Moutier, MD, Daniel V. Satele, Jeff A. Sloan, PhD, and Liselotte N. Dyrbye, MD

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## Abstract

### Purpose

Many medical students experience distress during medical school. If matriculating medical students (MMSs) begin training with similar or better mental health than age-similar controls, this would support existing concerns about the negative impact of training on student well-being. The authors compared mental health indicators of MMSs versus those of a probability-based sample of the general U.S. population.

### Method

In 2012 all MMSs at six U.S. medical schools were invited to participate in a survey during orientation. The research

team surveyed a probability-based sample of U.S. individuals using the same questions in 2011. Individuals from the population sample who completed a four-year college degree and matched within the appropriate age strata (< 30, 31–35, 36–40, > 40) were compared with MMSs. Surveys included demographics and validated instruments to measure burnout; depression symptoms; and mental, emotional, physical, and overall of quality of life (QOL).

### Results

Demographic characteristics of the 582/938 (62%) responding MMSs were similar to U.S. MMSs. Relative to 546 age-

similar college graduates, MMSs had lower rates of burnout (27.3% versus 37.3%,  $P < .001$ ) and depression symptoms (26.2% versus 42.4%,  $P < .0001$ ) and higher scores across the four QOL domains assessed relative to controls (all  $P < .0001$ ). These findings persisted on multivariate analysis after adjusting for age, sex, relationship status, and race/ethnicity.

### Conclusions

These findings, along with high rates of distress reported in medical students and residents, support concerns that the training process and environment contribute to the deterioration of mental health in developing physicians.



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## Abstract

**Purpose** Medical students begin medical school with **better** mental health indicators than age-similar college graduates in the general population.

**Methods** These findings, coupled with other studies that demonstrate high rates of distress among medical students, support existing concerns that **the learning environment and training process contribute to the deterioration of mental health in medical students.**



Lennard T. van Venrooij, Pieter C. Barnhoorn\*, Erik J. Giltay and Martijn S. van Noorden

# Burnout, depression and anxiety in preclinical medical students: a cross-sectional survey

DOI 10.1515/ijamh-2015-0077

Received August 2, 2015; accepted September 20, 2015

## Abstract

**Objective:** The purpose of this study was to assess the prevalences and correlates of adverse affective states (burnout-, depression- and anxiety-related symptoms) among preclinical medical students.

**Methods:** Self-report questionnaires were sent to all pre-clinical medical students of Leiden University Medical Center (n=1311). Burnout-related symptoms were measured using the Maslach Burnout Inventory-General Survey (MBI-GS), depression and anxiety-related symptoms and vitality using the Symptom Questionnaire-48 (SQ-48). Furthermore, duration of sleep, quality of life (SF-36), need for recovery, happiness and dispositional optimism were assessed and analysed in relation to affective symptoms using regression analysis.

risk to adverse affective states, and should inspire preventative initiatives.

**Keywords:** medical students; mental distress; preclinical.

## Introduction

Previous studies showed that adverse affective states among non-university students, university students and medical students in particular are a relatively common phenomenon (1, 2). In the last decade, several studies have been conducted on adverse affective states among medical students and the coverage in popular media has grown. The most prevalent categories of symptoms indicating adverse affective states among medical students are burnout-, depression- and anxiety-related symptoms. Prevalences of burnout-, depression- and anxiety-related symptoms among medical stu-

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Among the 433 responders (33%),  
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# Relationship Between Burnout and Professional Conduct and Attitudes Among US Medical Students

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**P**ROFESSIONALISM IS A CORE COMPETENCY for all physicians.<sup>1,2</sup> Professionalism includes being honest, acting with integrity, advocating for the needs of patients, reducing barriers to equitable health care, and adhering to an ethical code of conduct. How best to instill professionalism in future physicians and maintain it through the course of a career is unknown. Research suggests that medical students may fail when attempting to develop a professional identity consistent with the expectations of society and the profession.<sup>3-9</sup> These findings are concerning because evidence

**Context** The relationship between professionalism and distress among medical students is unknown.

**Objective** To determine the relationship between measures of professionalism and burnout among US medical students.

**Design, Setting, and Participants** Cross-sectional survey of all medical students attending 7 US medical schools (overall response rate, 2682/4400 [61%]) in the spring of 2009. The survey included the Maslach Burnout Inventory (MBI), the PRIME-MD depression screening instrument, and the SF-8 quality of life (QOL) assessment tool, as well as items exploring students' personal engagement in unprofessional conduct, understanding of appropriate relationships with industry, and attitudes regarding physicians' responsibility to society.

**Main Outcome Measures** Frequency of self-reported cheating/dishonest behaviors, understanding of appropriate relationships with industry as defined by American Medical Association policy, attitudes about physicians' responsibility to society, and the relationship of these dimensions of professionalism to burnout, symptoms of depression, and QOL.

**Results** Of the students who responded to all the MBI items, 1354 of 2566 (52.8%) had burnout. Cheating/dishonest academic behaviors were rare (endorsed by <10%) in comparison to unprofessional conduct related to patient care (endorsed by up to 43%). Only 14% (362/2531) of students had opinions on relationships with industry consistent with guidelines for 6 scenarios. Students with burnout were more likely to report engaging in 1 or more unprofessional behaviors than those without burnout (35.0% vs 21.9%; odds ratio [OR], 1.89; 95% confidence interval [CI], 1.59-2.24). Students with burnout were also less likely to report holding altruistic views regarding physicians' responsibility to society. For example, students with burnout were less likely to want to provide care for the medically underserved than those without burnout (79.3% vs 85.0%; OR, 0.68; 95% CI, 0.55-0.83). After multivariable analysis adjusting for personal and professional characteristics, burnout was the only aspect of distress independently associated with reporting 1 or more unprofessional behaviors (OR, 1.76; 95% CI, 1.45-2.13) or holding at least 1 less altruistic view regarding physicians' responsibility to society (OR, 1.65; 95% CI, 1.35-2.01).

**Conclusion** Burnout was associated with self-reported unprofessional conduct and

***JAMA 304: 1174-1180, 2010***

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**52.8% of medical students who responded had elements of burnout**

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# Resilience

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“Resilience is the ability of an individual to respond to stress in a healthy, adaptive way such that personal goals are achieved at minimal psychological and physical cost; **resilient individuals** not only ‘bounce back’ rapidly after challenges but also **grow stronger in the process**.”

**Epstein & Krasner 2013**



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**Epstein & Krasner 2013**

*“Resilience is not limited to an elite few...  
**anyone can learn to become more resilient”***

**Steven Southwick, MD 2015**

# Physician Resilience: What It Means, Why It Matters, and How to Promote It

Ronald M. Epstein, MD, and Michael S. Krasner, MD

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## Abstract

Resilience is the capacity to respond to stress in a healthy way such that goals are achieved at minimal psychological and physical cost; resilient individuals “bounce back” after challenges while also growing stronger. Resilience is a key to enhancing quality of care, quality of caring, and sustainability of the health care workforce. Yet, ways of identifying and promoting resilience have been elusive. Resilience depends on individual, community, and institutional factors. The study by Zwack and Schweitzer in this issue of *Academic Medicine* illustrates that individual factors of resilience

include the capacity for mindfulness, self-monitoring, limit setting, and attitudes that promote constructive and healthy engagement with (rather than withdrawal from) the often-difficult challenges at work. Cultivating these specific skills, habits, and attitudes that promote resilience is possible for medical students and practicing clinicians alike. Resilience-promoting programs should also strive to build community among clinicians and other members of the health care workforce. Just as patient safety is the responsibility of communities of practice, so is clinician well-being and

support. Finally, it is in the self-interest of health care institutions to support the efforts of all members of the health care workforce to enhance their capacity for resilience; it will increase quality of care while reducing errors, burnout, and attrition. Successful organizations outside of medicine offer insight about institutional structures and values that promote individual and collective resilience. This commentary proposes methods for enhancing individuals’ resilience while building community, as well as directions for future interventions, research, and institutional involvement.

# Physician Resilience: What It Means, Why It Matters, and How to Promote It

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## Abstract

Resilience is the capacity to withstand stress in a healthy way. Resilience is achieved at minimal psychological and physical cost; resilience allows one to “bounce back” after adversity and also growing stronger as a result. Resilience is to enhancing quality of life, patient caring, and sustainable health care workforce. Yet, resilience is elusive. Resilience depends on individual, community, and institutional factors. A study by Zwack and colleagues in this issue of *Academic Medicine* suggests that individual factors

## Individual factors of resilience include:

- the capacity for mindfulness,
- self-monitoring,
- setting limits
- attitudes that promote constructive and health engagement with (rather than withdrawal from) the often-difficult challenges at work.

of interest support the health care system's capacity for quality of care. Resilience, in turn, is a key to organizations' ability to deal with the challenges of the 21st century. Resilience is a collective effort that requires the support of the community, as well as interventions, and involvement.



**Jon Kabat-Zinn**

## Mindfulness refers to:

*“the **awareness** that emerges through **paying attention** in a particular way, **on purpose**, in the **present moment**, and **without judgment**, to the unfolding of experience from moment to moment”*

# Association of an Educational Program in Mindful Communication With Burnout, Empathy, and Attitudes Among Primary Care Physicians

Michael S. Krasner, MD

Ronald M. Epstein, MD

Howard Beckman, MD

Anthony L. Suchman, MD, MA

Benjamin Chapman, PhD

Christopher J. Mooney, MA

Timothy E. Quill, MD

**P** RIMARY CARE PHYSICIANS REPORT alarming levels of professional and personal distress. Up to 60% of practicing physicians report symptoms of *burnout*,<sup>1,4</sup> defined as emotional exhaustion, depersonalization (treating patients as objects), and low sense of accomplishment. Physician burnout has been linked to poorer quality of care, including patient dissatisfaction, increased medical errors, and lawsuits and decreased ability to express empathy.<sup>2,3,7</sup> Substance abuse, automobile accidents, stress-related health problems, and marital and family discord are among the personal consequences reported.<sup>4,8-10</sup> Burnout can occur early in the medical educational process. Nearly half of all third-year medical students report burnout<sup>11</sup> and there are strong associations between medical student burnout and suicidal ideation.<sup>12</sup>

**Context** Primary care physicians report high levels of distress, which is linked to burnout, attrition, and poorer quality of care. Programs to reduce burnout before it results in impairment are rare; data on these programs are scarce.

**Objective** To determine whether an intensive educational program in mindfulness, communication, and self-awareness is associated with improvement in primary care physicians' well-being, psychological distress, burnout, and capacity for relating to patients.

**Design, Setting, and Participants** Before-and-after study of 70 primary care physicians in Rochester, New York, in a continuing medical education (CME) course in 2007-2008. The course included mindfulness meditation, self-awareness exercises, narratives about meaningful clinical experiences, appreciative interviews, didactic material, and discussion. An 8-week intensive phase (2.5 h/wk, 7-hour retreat) was followed by a 10-month maintenance phase (2.5 h/mo).

**Main Outcome Measures** Mindfulness (2 subscales), burnout (3 subscales), empathy (3 subscales), psychosocial orientation, personality (5 factors), and mood (6 subscales) measured at baseline and at 2, 12, and 15 months.

**Results** Over the course of the program and follow-up, participants demonstrated improvements in mindfulness (raw score, 45.2 to 54.1; raw score change [ $\Delta$ ], 8.9; 95% confidence interval [CI], 7.0 to 10.8); burnout (emotional exhaustion, 26.8 to 20.0;  $\Delta = -6.8$ ; 95% CI, -4.8 to -8.8; depersonalization, 8.4 to 5.9;  $\Delta = -2.5$ ; 95% CI, -1.4 to -3.6; and personal accomplishment, 40.2 to 42.6;  $\Delta = 2.4$ ; 95% CI, 1.2 to 3.6); empathy (116.6 to 121.2;  $\Delta = 4.6$ ; 95% CI, 2.2 to 7.0); physician belief scale (76.7 to 72.6;  $\Delta = -4.1$ ; 95% CI, -1.8 to -6.4); total mood disturbance (33.2 to 16.1;  $\Delta = -17.1$ ; 95% CI, -11 to -23.2), and personality (conscientiousness, 6.5 to 6.8;  $\Delta = 0.3$ ; 95% CI, 0.1 to 0.5 and emotional stability, 6.1 to 6.6;  $\Delta = 0.5$ ; 95% CI, 0.3 to 0.7). Improvements in mindfulness were correlated with improvements in total mood disturbance ( $r = -0.39$ ,  $P < .001$ ), perspective taking subscale of physician empathy ( $r = 0.31$ ,  $P < .001$ ), burnout (emotional exhaustion and personal accomplishment subscales,  $r = -0.32$  and  $0.33$ , respectively;  $P < .001$ ), and personality factors (conscientiousness and emotional stability,  $r = 0.29$  and  $0.25$ , respectively;  $P < .001$ ).

**Conclusions** Participation in a mindful communication program was associated with short-term and sustained improvements in well-being and attitudes associated with patient-centered care. Because before-and-after designs limit inferences about intervention effects, these findings warrant randomized trials involving a variety of practicing physicians.

JAMA. 2009;302(12):1284-1293

www.jama.com

For editorial comment see p 1338.

**CME** available online at [www.jamaarchivescme.com](http://www.jamaarchivescme.com) and questions on p 1374.

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## Intervention

An intensive phase (2.5 hr/8 wk)

All day (7 hr) session (week 6-7)

A maintenance phase (10 monthly)

## Each Session

15 min didactic material (weekly)

(awareness, burnout, self-care)

Formal mindfulness meditation

Body scan

Sitting meditation

Walking meditation

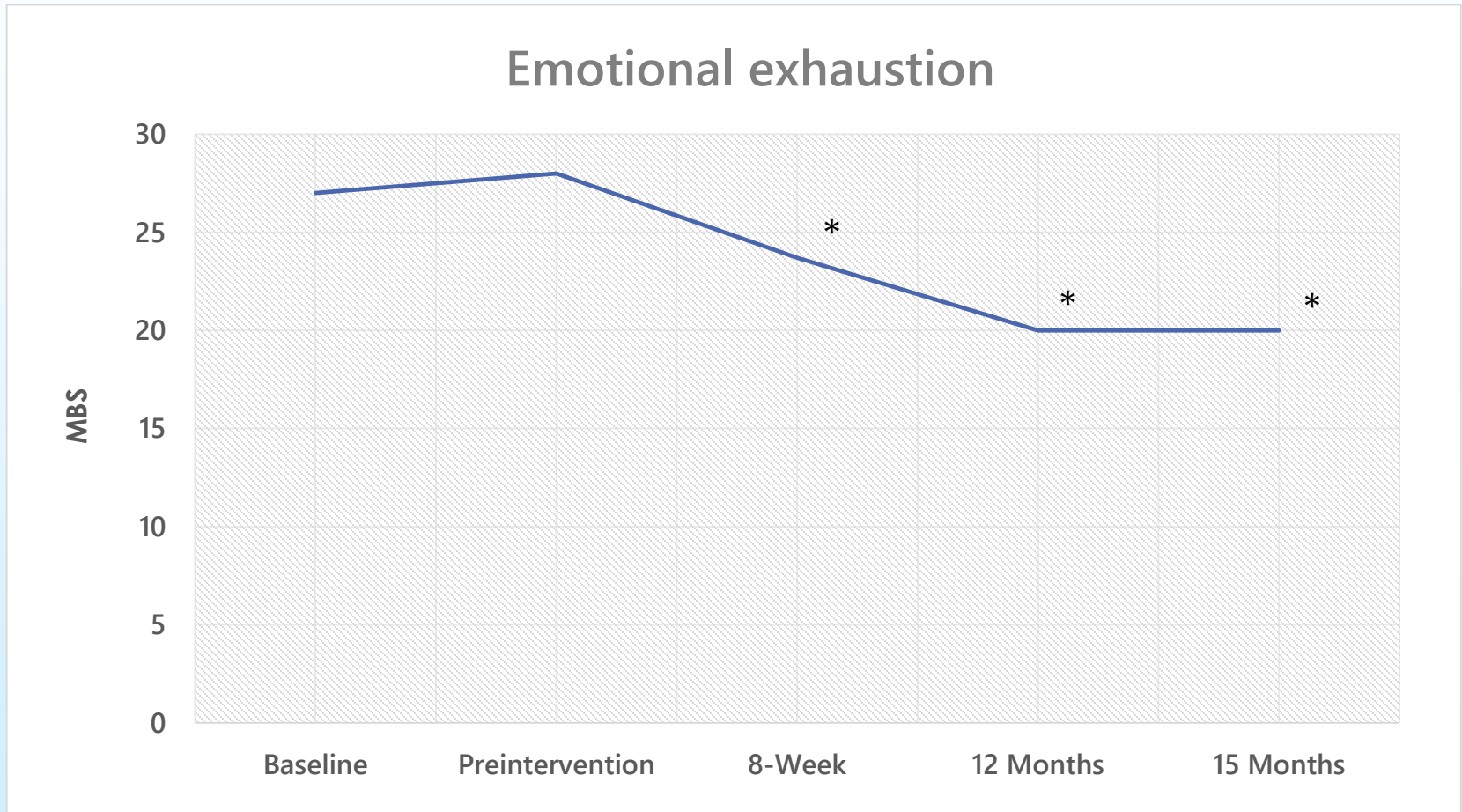
Mindful movement

Narrative Exercises:

Appreciative Inquiry

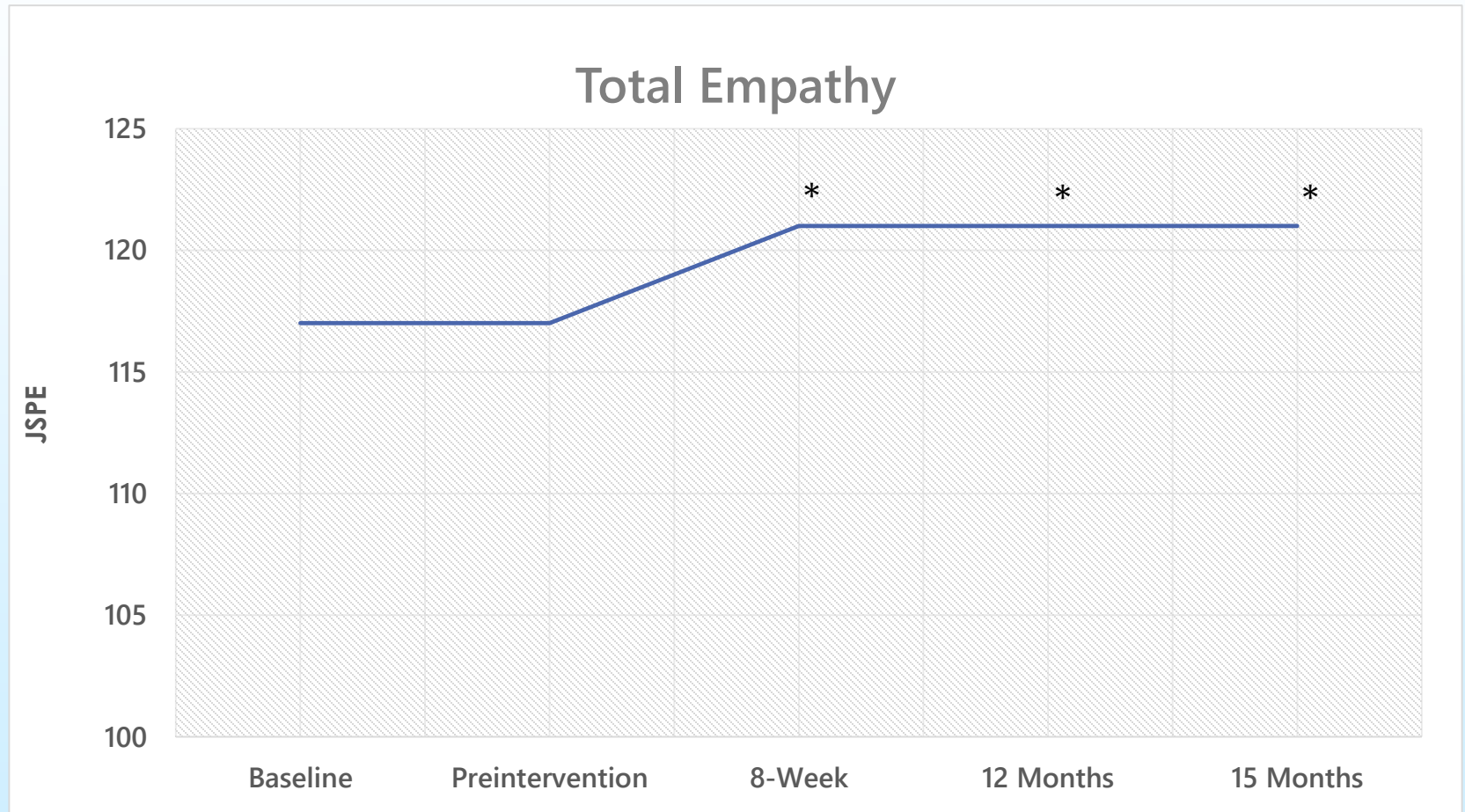


# Maslach Burnout Scale

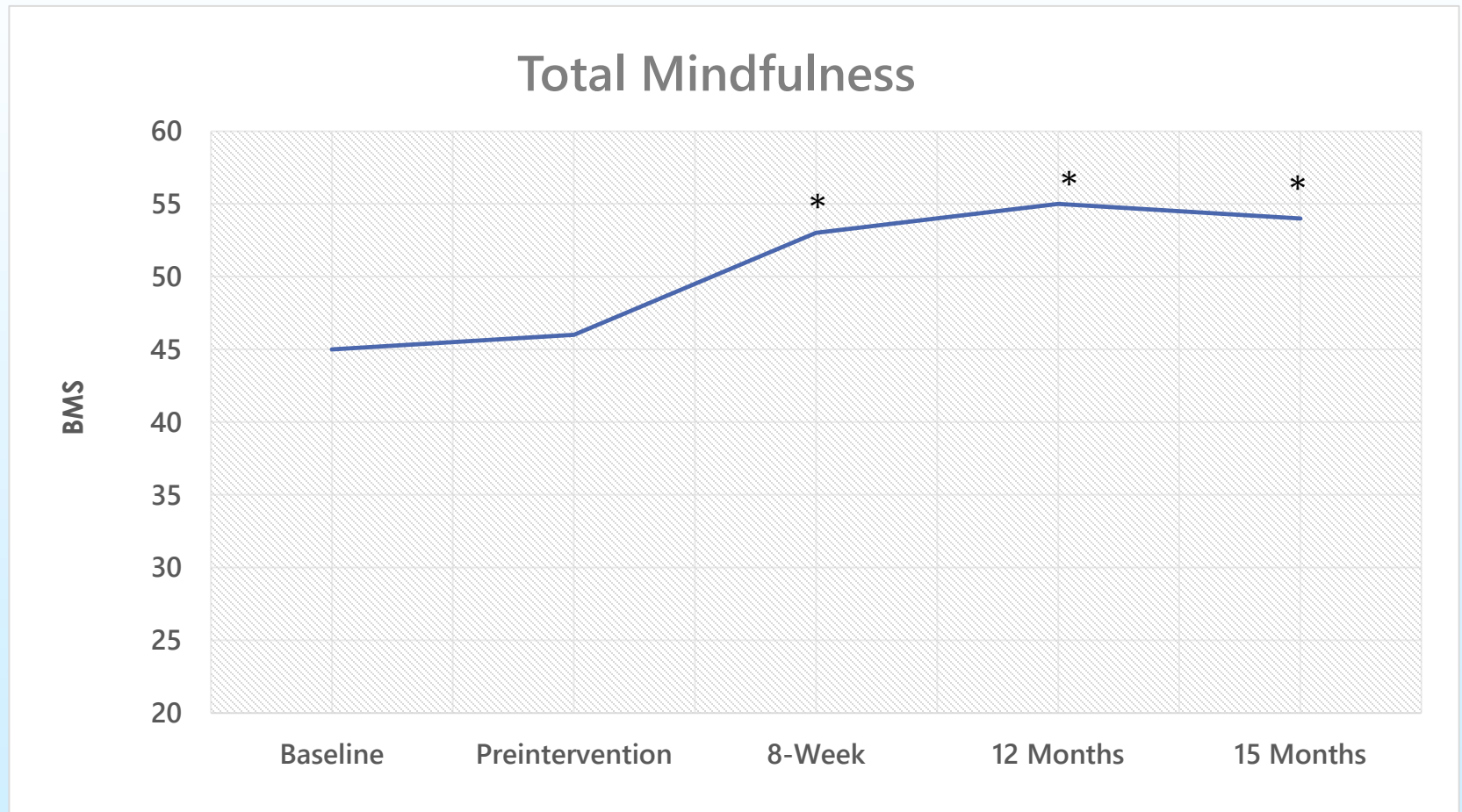


*Krasner et al, JAMA. 302: 1284-1293, 2009*

# Jefferson Scale of Physician Empathy



# Baer Mindfulness Scale



# Conclusion 1

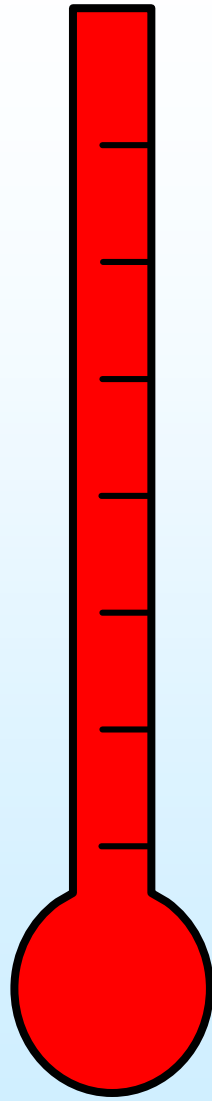
Practicing mindfulness can reduce burnout and increase empathy

# Conclusion 1

Practicing mindfulness can reduce burnout and increase empathy

***Why and how would mindfulness do that?***

# Burnout



Stressor

Stressor

Stressor

Stressor

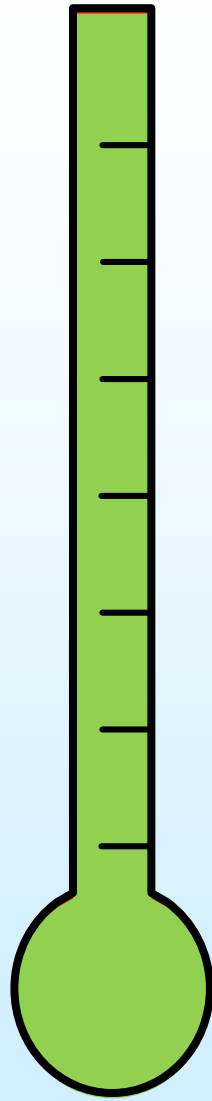
Stressor

Stressor

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**Burnout**

Cognitive Reappraisal

Positive Psychology

Reflection

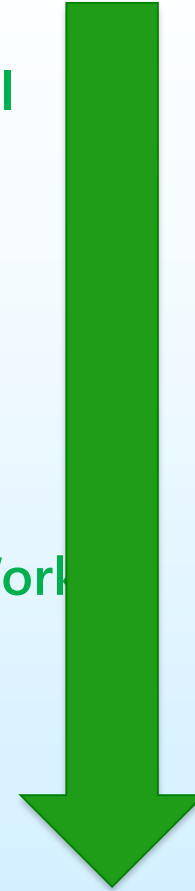
Appreciative Inquiry

Finding Meaning in Work

Mindfulness

Meditation

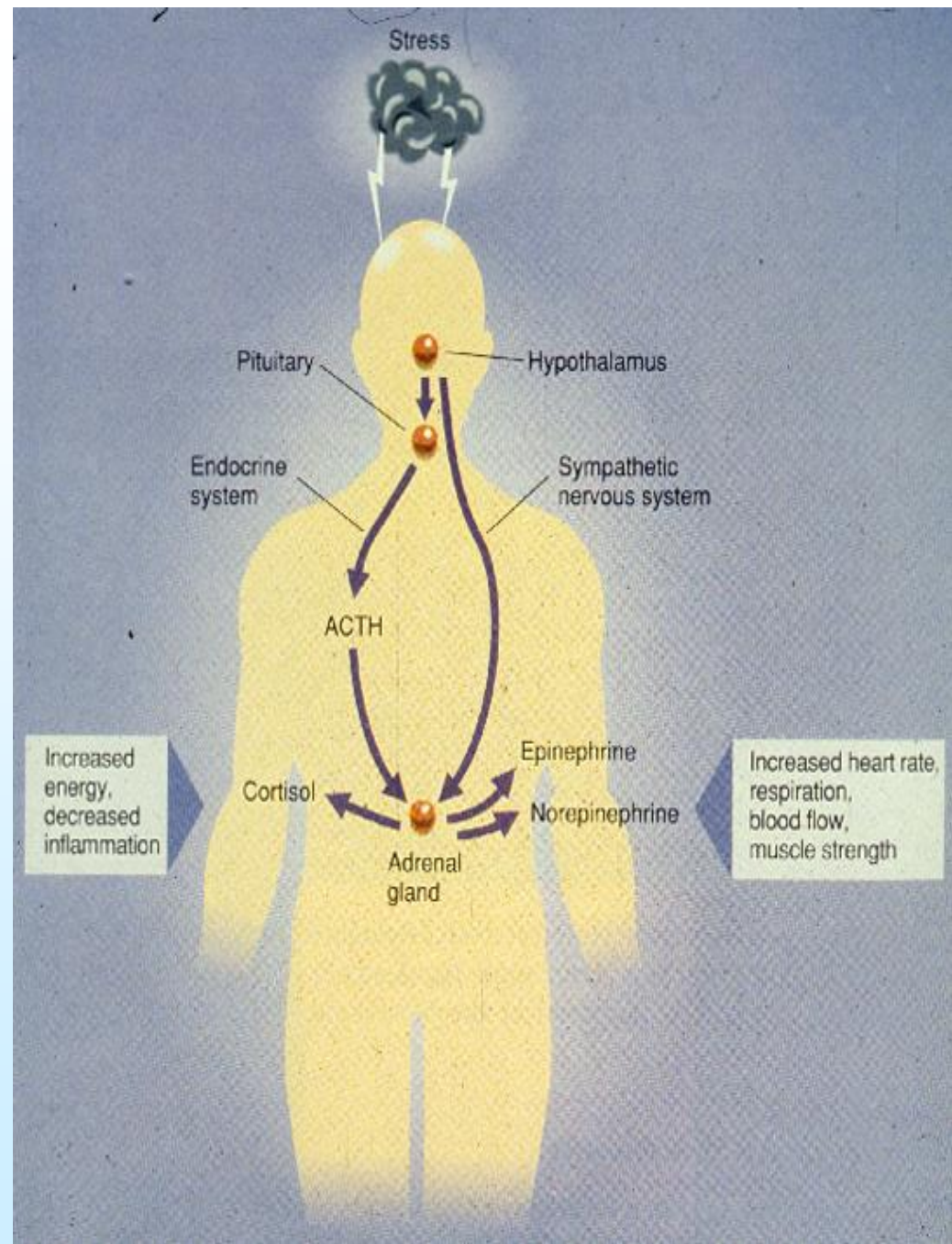
**Resilience**



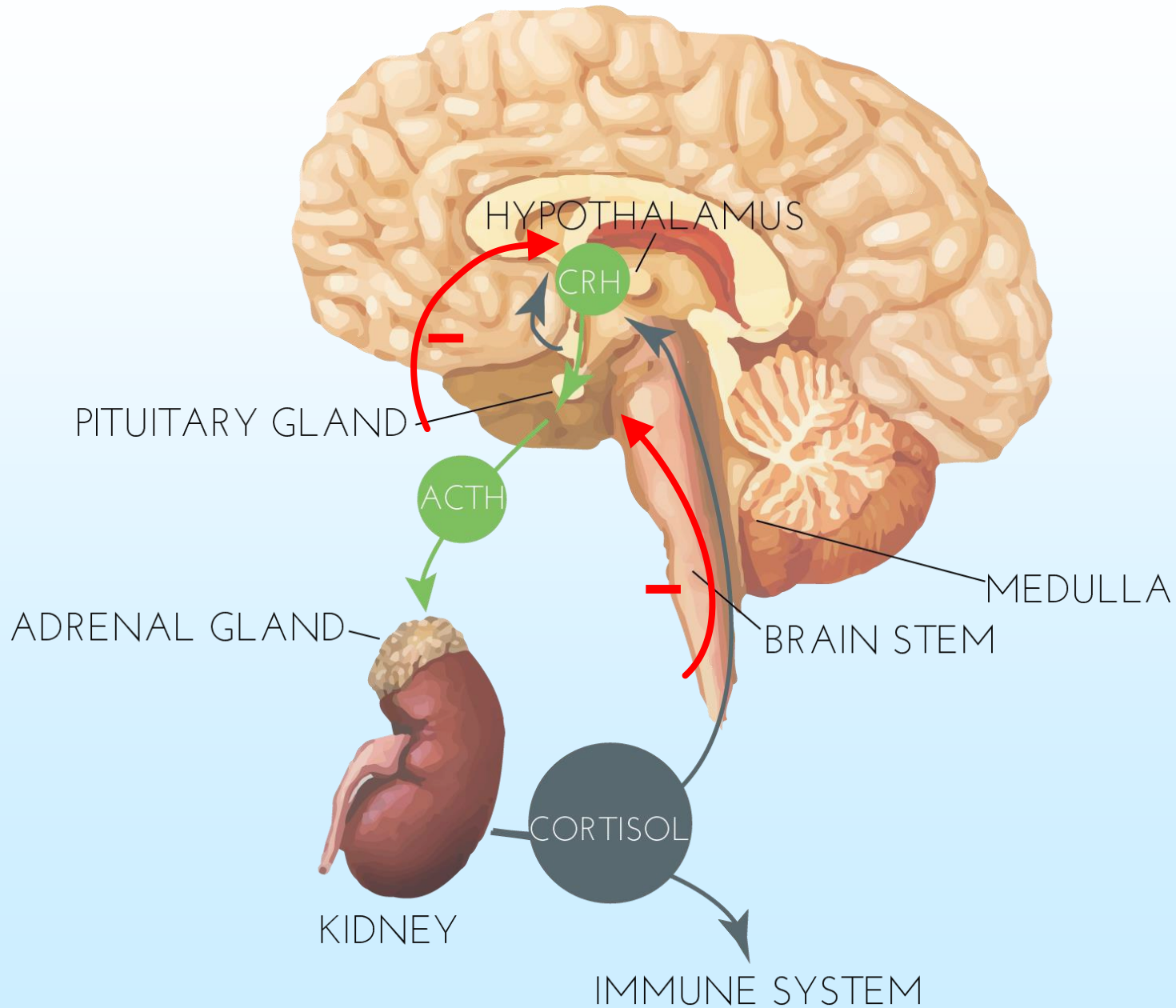
# Stress Response

Effect on the  
Hypothalamic-  
Pituitary-  
Adrenal Axis

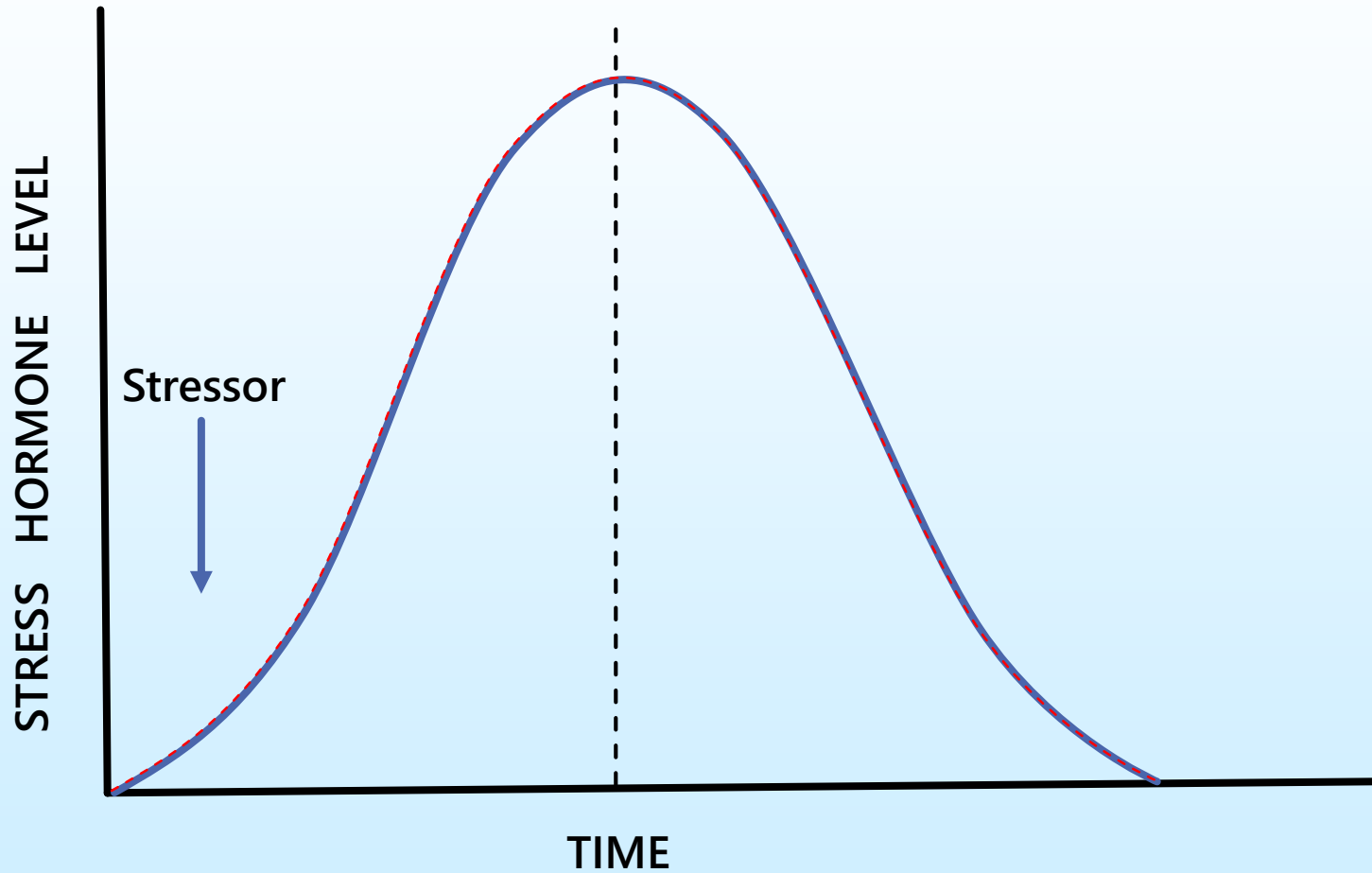
*“Fight-or-Flight”  
Response*



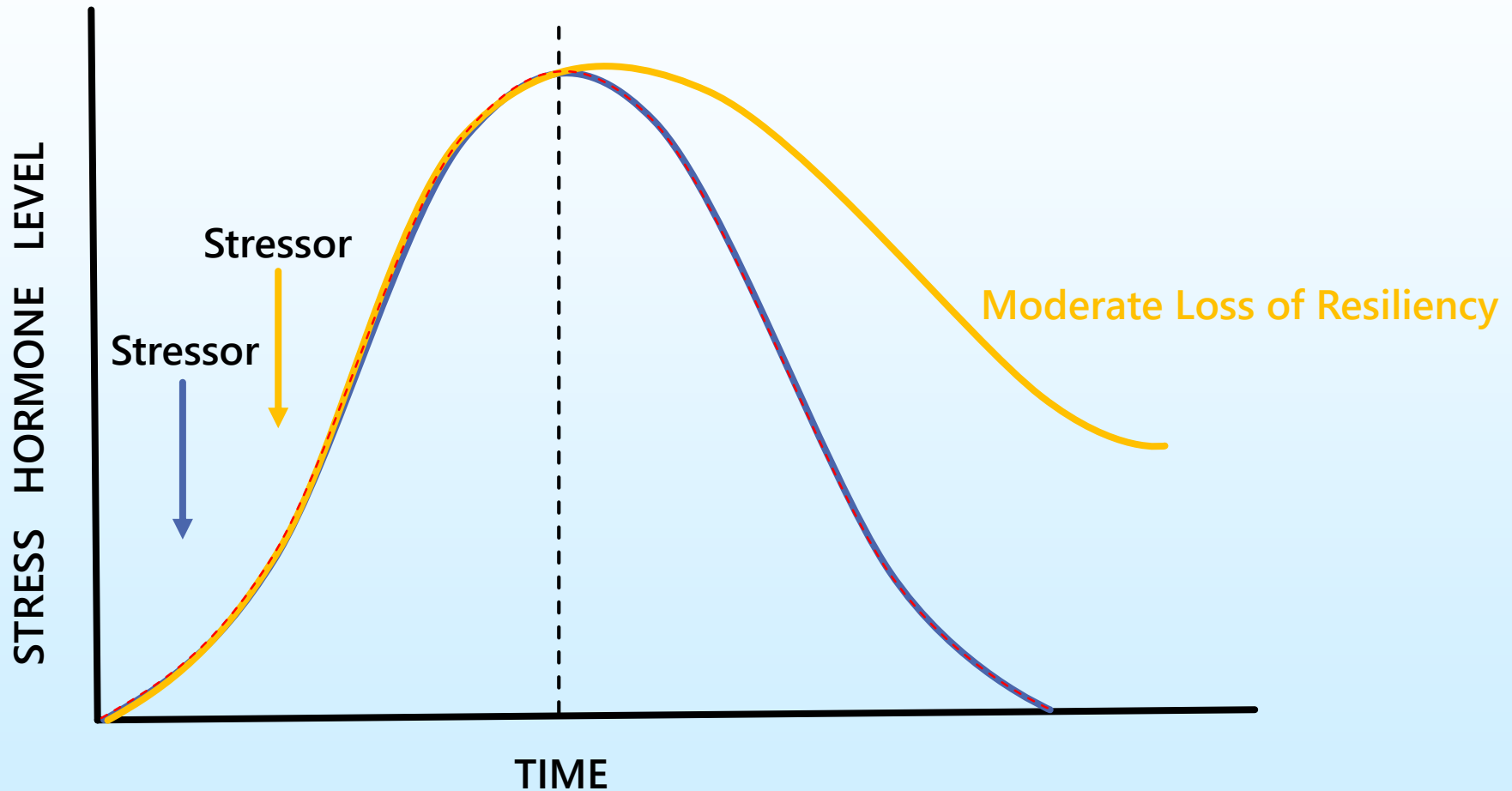
# STRESS RESPONSE SYSTEM



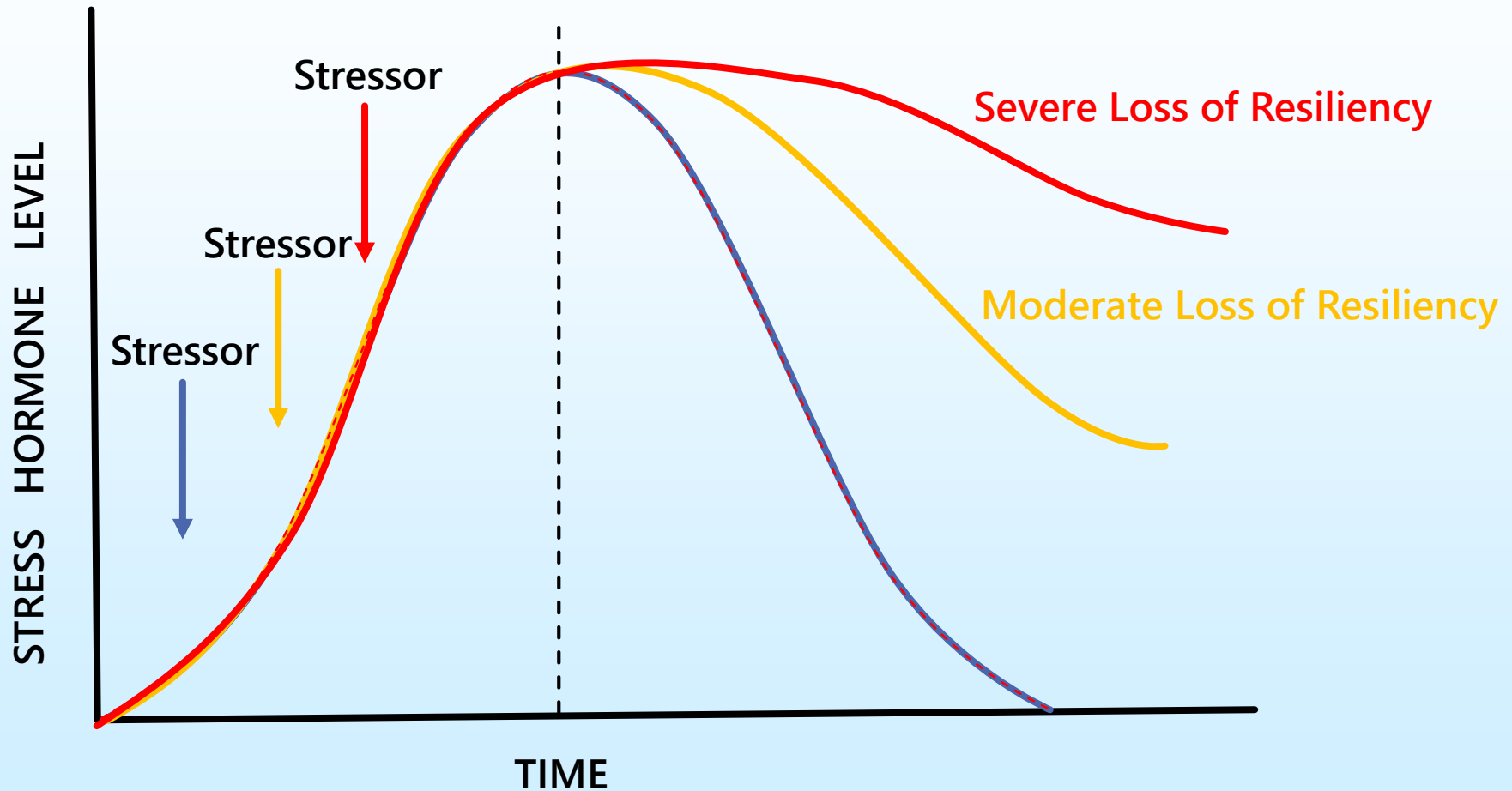
# Physiology of the Stress Response



# Physiology of the Stress Response

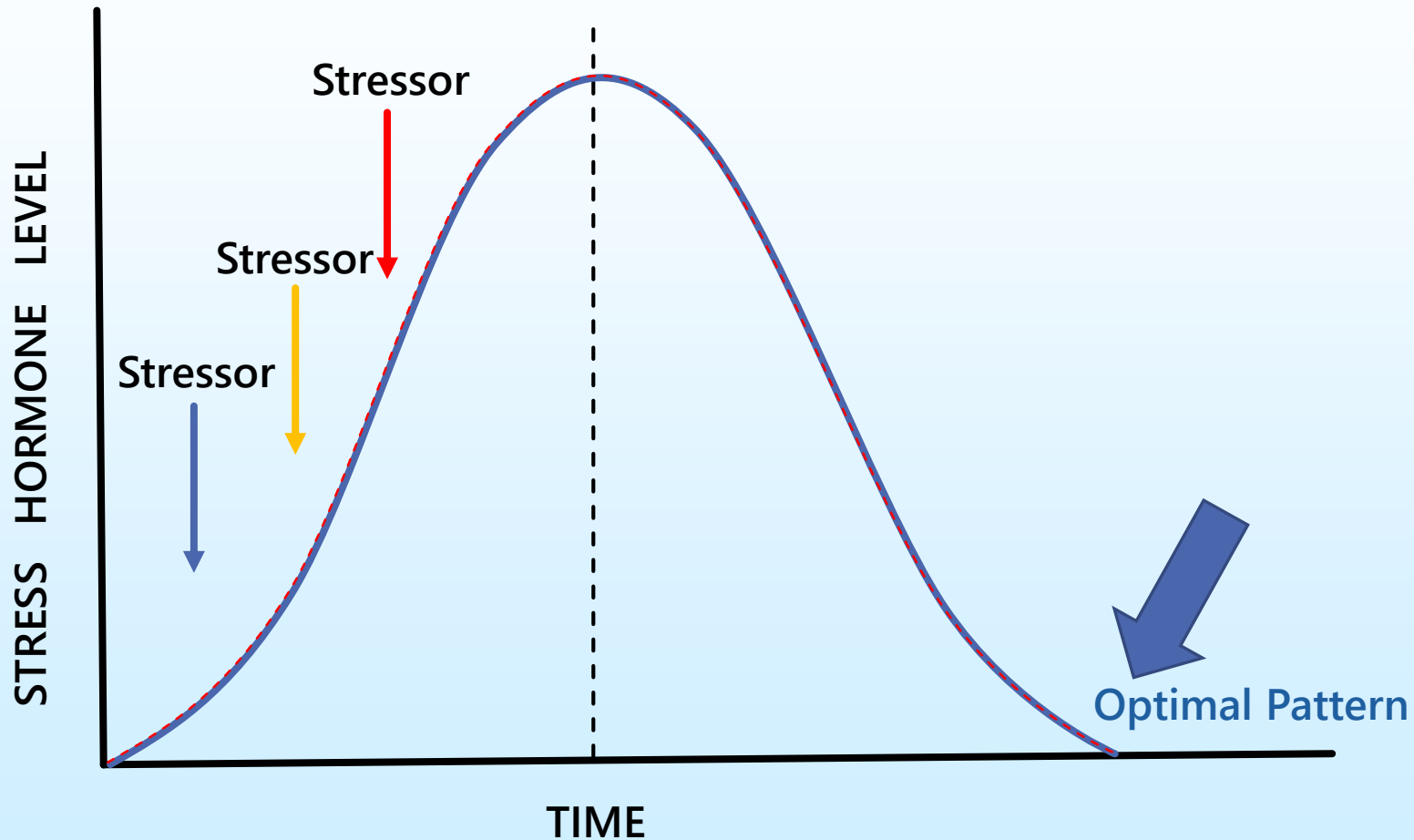


# Physiology of the Stress Response





# Physiology of the Stress Response



# Importance of the return to baseline

- Sustained cortisol impairs feedback regulation:  
Implications for coping with novel stressors
- Chronic stress impairs memory, learning
- Differentiate chronic stress from acute stress

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*What can help us get to back to baseline?*

# Mind-Body Medicine

# Mind-body Medicine: Therapies

- **Meditation**
- Imagery
- Biofeedback
- Autogenic Training (self-hypnosis)
- Breathing Techniques
- Exercise
- Yoga, Tai Chi
- Group Support



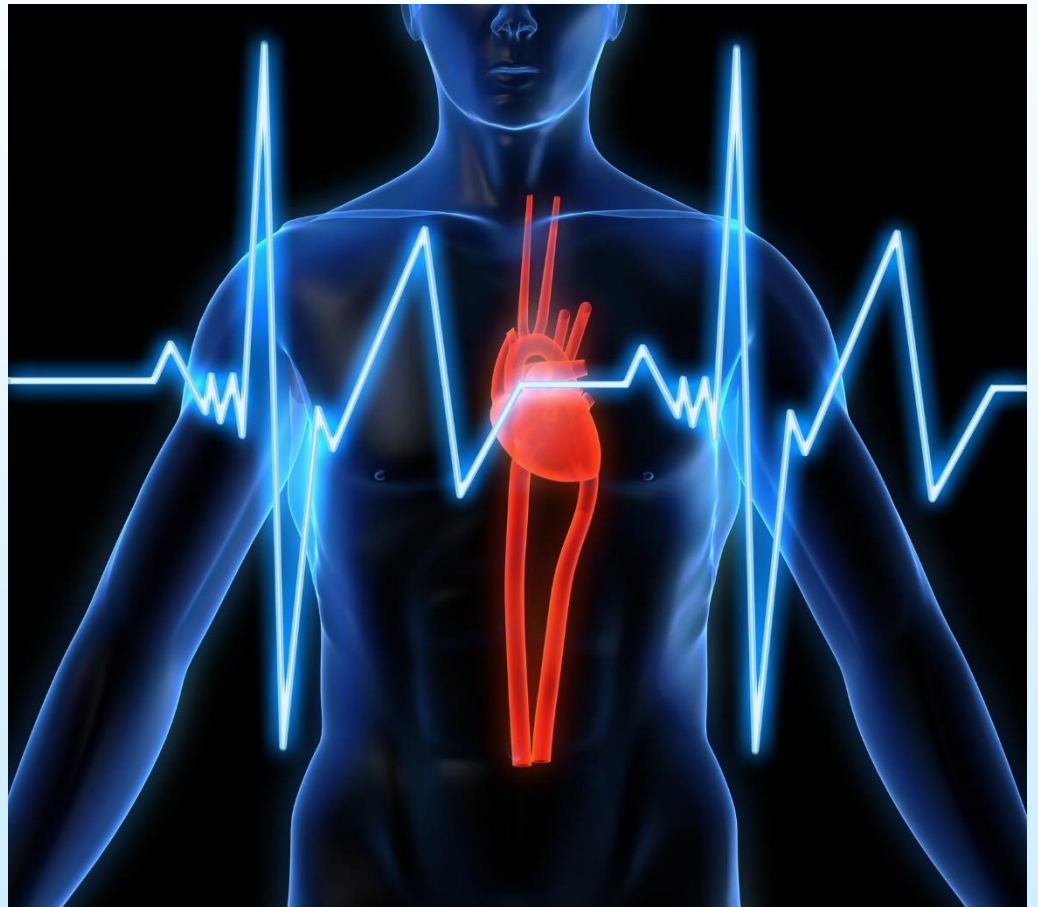
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# Why is Mindfulness Meditation Effective in Reducing Stress?

- ▶ Intentional self-regulation of attention conducted without judgment and focused on observation of the present moment.

# What is Mindfulness Meditation Effective in Reducing Stress?

- Intentional self-regulation of attention conducted without judgment and focused on observation of the present moment.
- When we are able to focus on just what is happening in the present moment, our minds cannot be anxious, worried or distressed about other issues

# Benefits of Mindfulness Meditation

## Physiological Benefits

- Decrease in hypertension
- Decrease in heart rate
- Decreased levels of cortisol
- Reduced sympathetic arousal
- Strengthened immune system
- Reduced levels of pain



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***Physiology of “de-stress”***

# Benefits of Mindfulness Meditation

## Psychological Benefits

- Reduced stress level
- Decreased anxiety
- Decreased depression
- Improved confidence and concentration
- Undercuts processes such as worry and rumination
- Increased peace of mind, optimism and self-worth

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***Physiology of “de-stress”***

## Conclusion 2

Mindful practice utilizes our mind-body connection to de-stress ourselves and bring our stress hormones back to baseline

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***An effective “re-boot”***

# Competency-Based Medical Education

1. Effective Communication
2. Basic Clinical Skills
3. Using Basic Science in the Practice of Medicine
4. Diagnosis, Management and Prevention
5. Life-long Learning
6. Self-Awareness, Self-Care, and Personal Growth
7. Social/Community Contexts of Healthcare
8. Moral Reasoning and Clinical Ethics
9. Problem-solving

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# ***Mind-Body Medicine Program*** at Georgetown U School of Medicine



Nancy Harazduk, MEd, MSW

Director, Mind-Body Medicine

## Goal

To increase student understanding of **self-awareness** and **self-care** by providing a unique experiential and didactic introduction to *Mind-Body Medicine*

# ***Mind-Body Medicine Program*** at Georgetown U School of Medicine

## Objectives

- To increase self-awareness of emotional, physical, mental, social and spiritual aspects of one's life
- To increase personal self-care through guided experiences and daily practice.
- To foster non-judgmental, supportive collegial relationships

# ***Mind-Body Medicine Program*** at Georgetown U School of Medicine

## ➡ **Format of groups:**

- ➡ 10 students and 2 faculty facilitators per group
- ➡ Participants (voluntarily sign up for the course) meet once a week for 2 hours for 11 weeks per semester for this *“journey of self-discovery”*

## ➡ **Structure of Each Session**

- ➡ A safe environment must be created that adheres to certain guidelines
  - ➡ confidentiality, respect, compassionate listening, non-judgment
- ➡ Check-in (sharing of new reflections and insights)
- ➡ Introduction of a new mind-body medicine skill
- ➡ Process the experiential exercise (sharing insights)

# ***Mind-Body Medicine Program*** at Georgetown U School of Medicine

## **Skills and Experiences**

- Meditation (mindfulness/awareness, concentrative)
- Guided Imagery (several types)
- Autogenic training/biofeedback
- Art (emphasis on non-cognitive approaches)
- Music (used in meditation and imagery sessions)
- Movement (shaking, free movement, exercise)
- Writing (journals, dialogues, service commitment)
- Group support









# ***Mind-Body Medicine Program*** at Georgetown U School of Medicine

## **Outcomes**



**Perceived Stress** (*Perceived Stress Scale*)



**Mindfulness** (*Freiburg Mindfulness Inventory*)



**Empathy** (*Interpersonal Reactivity Index*)



# Perceived Stress Scale (PSS)

<b>n = 118</b>	<b>Mean</b>	<b>P-value</b>	<b>Effect size (d)</b>
<b>Pre-MBM</b>	18.2 ± 6.0		
<b>Post-MBM</b>	13.7 ± 5.3		
<b>Difference</b>	<b>-4.5 ± 5.7</b>	<b>&lt; 0.001</b>	<b>0.76</b>

# Mindfulness (FMI)

<b>n = 118</b>	<b>Mean</b>	<b>P-value</b>	<b>Effect size (d)</b>
<b>Pre-MBM</b>	36.4 ± 6.4		
<b>Post-MBM</b>	42.5 ± 5.5		
<b>Difference</b>	<b>6.1 ± 5.8</b>	<b>&lt; 0.001</b>	<b>0.96</b>

# PANAS

## Positive Affect

n = 117	Mean	P-value	Effect size (d)
Pre-MBM	34.2 ± 5.8		
Post-MBM	38.1 ± 5.9		
Difference	3.9 ± 5.2	< 0.001	0.67

## Negative Affect

n = 117	Mean	P-value	Effect size (d)
Pre-MBM	21.7 ± 6.7		
Post-MBM	18.7 ± 5.5		
Difference	-3.0 ± 5.2	< 0.001	0.45

# Bivariate Analysis with the Change in Mindfulness (FMI)

	<b>r</b>	<b>P-value</b>	<b>n</b>
<b>ΔPSS</b>	-0.627	< 0.001	117
<b>ΔPANAS Positive</b>	0.443	< 0.001	116
<b>ΔPANAS Negative</b>	-0.474	< 0.001	116

# Multivariate Analysis with Mindfulness (FMI)

Post-Course (T2)	Model	Overall Model Variance	Stand. $\beta$	Unique Variance
<b>PSS</b>	Baseline PSS Mindfulness T2	$R^2 = 0.46^*$	0.40 -0.46	$R^2 = 0.21^*$
PANAS <b>Positive</b>	Baseline Pos. Mindfulness T2	$R^2 = 0.48^*$	0.43 0.39	$R^2 = 0.12^*$
PANAS <b>Negative</b>	Baseline Neg. Mindfulness T2	$R^2 = 0.50^*$	0.61 -0.29	$R^2 = 0.08^*$

**$*p < 0.001$**

# Promoting self-awareness and reflection through an experiential Mind-Body Skills course for first year medical students

PAMELA A. SAUNDERS<sup>1</sup>, ROCHELLE E. TRACTENBERG<sup>1</sup>, RANJANA CHATERJI<sup>2</sup>, HAKIMA AMRI<sup>3</sup>, NANCY HARAZDUK<sup>3</sup>, JAMES S. GORDON<sup>3,4</sup>, MICHAEL LUMPKIN<sup>3</sup> & AVIAD HARAMATI<sup>3</sup>

<sup>1</sup>Department of Neurology, Georgetown University, <sup>2</sup>Philadelphia College of Osteopathic Medicine, Philadelphia, PA,

<sup>3</sup>Department of Physiology, Georgetown University, Washington, DC, <sup>4</sup>The Center for Mind Body Medicine, Washington, DC

## Abstract

**Background:** This research examines student evaluations of their experience and attitudes in an 11 week mind-body skills course for first year medical students.

**Aims:** The aim is to understand the impact of this course on students' self-awareness, self-reflection, and self-care as part of their medical education experience.

**Methods:** This study uses a qualitative content analysis approach to data analysis. The data are 492 verbatim responses from 82 students to six open-ended questions about the students' experiences and attitudes after a mind-body skills course. These questions queried students' attitudes about mind-body medicine, complementary medicine, and their future as physicians using these approaches.

**Results:** The data revealed five central themes in students' responses: connections, self discovery, stress relief, learning, and medical education.

**Conclusions:** Mind-body skills groups represent an experiential approach to teaching mind-body techniques that can enable students to achieve self-awareness and self-reflection in order to engage in self-care and to gain exposure to mind-body medicine.

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## Themes:

- Connections
- Self-discovery
- Stress Relief
- Learning: New Skills and Academic Achievement
- Insights into Medical Education

students to achieve self-awareness and self-reflection in order to engage in self-care and to gain exposure to mind-body medicine







# The Impact of Mind–Body Medicine Facilitation on Affirming and Enhancing Professional Identity in Health Care Professions Faculty

Nicholas Talisman, Nancy Harazduk, MEd, MSW, Christina Rush, MA, Kristi Graves, PhD, and Aviad Haramati, PhD

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## Abstract

### Problem

Georgetown University School of Medicine (GUSOM) offers medical students a course in mind–body medicine (MBM) that introduces them to tools that reduce stress and foster self-awareness. Previous studies reported decreases in students' perceived stress and increases in mindfulness—changes that were associated with increased empathic concern and other elements of professional identity formation. However, no reports have described the impact of an MBM course on the facilitators themselves.

### Approach

identity, self-awareness, and/or perceived stress, 62 facilitators, trained by the GUSOM MBM program, were invited to complete two validated surveys: the Freiburg Mindfulness Inventory (FMI) and the Perceived Stress Scale (PSS). Forty-two participants also completed a six-item open-ended questionnaire addressing their experience in the context of their professional identity.

### Outcomes

Facilitators' scores were significantly lower on PSS and higher on FMI compared with normative controls

$P < .01$ ). Qualitative analysis revealed three main themes: (1) aspects of professional identity (with subthemes of communication; connections and community; empathy and active listening; and self-confidence); (2) self-care; and (3) mindful awareness.

### Next Steps

Preliminary findings will be extended with larger studies that examine longitudinal quantitative assessment of communication, connection, and self-confidence outcomes in MBM facilitators, and

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## Abstract

**Problem** Georgetown University School of Medicine (GUSOM) offers a mind–body medicine program that introduces the faculty to mind–body practices and fosters self-awareness and professional identity. The program reported decreased stress and increased communication and connection changes that led to increased empathy and connection with other elements of the health care system. The program described the impact on the faculty's professional identity, self-awareness, and/or communication skills ( $P < .01$ ). Qualitative analysis revealed

**...higher mindfulness scores were positively correlated with lower perceived stress scores.**

**...improvements in communication between colleagues, increased sense of connection with students and colleagues, increased empathy, and heightened self-confidence.**

**Approach** The program used a combination of qualitative and quantitative methods to evaluate the impact of the mind–body medicine program on the faculty's professional identity, self-awareness, and/or communication skills.

*Acad Med 90:780-784, June 2015*

# Implementation and Scope of the Mind-Body Medicine Skills Program

**Over 14 years**

- **>120 trained faculty facilitators** (clinicians, scientists, educators)
- **>1,400 medical students participated**
- **>360 graduate students** (MS and PhD)
- **>120 nursing students**
- **>800 students** (Law, Business, Foreign Services Schools at GU)
- **>70 faculty participants** (including from curriculum committee)

**Over 300 groups and over 3000 participants**

***Embraced by the School of Medicine as essential for a core competency (self-awareness and self-care)***

November/December 2008  
www.acphysci.com

# ACADEMIC PHYSICIAN & SCIENTIST

THE SOURCE FOR RECRUITMENT AND PROFESSIONAL DEVELOPMENT



*Students in Georgetown University School of Medicine's Mind-Body Skills course begin a session with a period of meditation.*

● **Spotlight on Mind-Body Skills:** A unique program blends science and humanism by fostering student self-awareness and self-care. See page 2



# Mind–Body Skills Course Changing Culture of Medical Education at Georgetown

BY AMY ROTHMAN SCHONFELD, PhD

---

In the past decade there has been increasing emphasis on developing initiatives to promote altruism and

rigorous science and clinical components of the typical medical school curriculum and the resistance of some traditionalists to alter-



# Faculty Training in Mind-Body Medicine

November 3 – 6, 2016

## Educating for Enhanced Self-Awareness and Self-Care

Originating at Georgetown University School of Medicine, this experiential program provides faculty at health professional schools with the training, tools, and strategic thinking necessary to implement mind-body medicine skills groups in their institutions.

During a three-day weekend retreat on Maryland's Eastern Shore, faculty will be introduced to meditation, guided imagery, biofeedback, breathing techniques, and other mind-body approaches that can alleviate stress and foster self-awareness and self-care. Participants will experience the power of these approaches first-hand while learning how to lead mind-body groups for students.

The program includes seven group sessions, several individual activities, short didactic presentations, and daily yoga. Participants are provided with all course materials, enabling them to launch similar programs in their institutions after the retreat.

---

### WHEN:

November 3–6, 2016

---

### WHERE:

Aspen Wye River  
Marriott Conference Center,  
Queenstown, Maryland

---

### WHO SHOULD APPLY:

Faculty members in the  
health professions who

### Facilitators/Course Directors

# Institutions Implementing Programs in Mind-Body Medicine

- *Georgetown University School of Medicine (medical students, residents)*
- *University of Cincinnati College of Medicine (medical/allied health/5 colleges)*
- *University of Alabama at Birmingham School of Medicine (medical students)*
- *Oregon Health and Sciences University (medical students)*
- *University of Washington (medical students)*
- *University of Vermont (medical students)*
- *University of North Dakota Medical School (medical students)*
- *Charite University Medical School, Germany (medical students)*
- *University of Essen-Duisenberg Medical School, Germany (medical)*
- *University of Liverpool, UK (medical students)*
- *Texas College of Osteopathic Medicine (medical students)*
- *Stanford University, Anesthesia Residency Program*
- *University of Western States (chiropractic and other CAM professions)*
- *Oregon College of Oriental Medicine (acupuncture and DAOM)*
- *Mid-Sweden University, Sweden (nursing students)*
- *Ben Gurion University School of Nursing, Israel (faculty retreat)*



# Making Better Doctors – Using Mind-Body Medicine Skills as a Self-Care Element in Medical Education at the Charité University Medical School

Benno Brinkhaus<sup>a</sup> Claudia Witt<sup>a,b</sup>

<sup>a</sup> Institute for Social Medicine, Epidemiology and Health Economics, Charité University Medical Center Berlin, Germany

<sup>b</sup> Center for Integrative Medicine, University of Maryland School of Medicine, Baltimore, MD, USA

## Stress and Its Consequences at Medical School

The education at a medical school is a time of significant psychological distress for physicians in training [1]. High workloads associated with stress are common to the medical profession and ethical conflicts as well as the exposure to human

## Mind-Body Medicine as a Self-Care Element in Medical Schools

The preventive aspect of MBM characterizes the earlier the better approach for implementing it as self-care element into medical education. The Association of American Medical



# **Enhancing the health of medical students: outcomes of an integrated mindfulness and lifestyle program**

**Craig Hassed • Steven de Lisle • Gavin Sullivan • Ciaran Pier**

**“Our data and experience suggest that self-care in the form of mindfulness-based stress management and lifestyle programs can improve student wellbeing, even during high stress periods.”**

# Lessons Learned

- Faculty stress and burnout is a serious issue and is preceded with cynicism and the decline of empathy in medical students

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- Approaches that can modulate stress and reverse these trends include:
  - Mindful practice
  - Enhancing self-awareness and self-care
  - Finding meaning in work

# Lessons Learned

- Faculty stress and burnout is a serious issue and is preceded with cynicism and the decline of empathy in medical students
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- Approaches that can modulate stress and reverse these trends include:
  - Mindful practice
  - Enhancing self-awareness and self-care
  - Finding meaning in work
- These elements must be actively fostered at our academic health centers both in the curriculum and in the culture

# Next Steps

- Establish a faculty/student task force to ascertain the degree of faculty and student stress and burnout at your institution
- If there is consensus that a problem exists, then there should be a collaborative effort to implement suitable interventions
- **Recognize that the status quo is unacceptable**
- There are many effective approaches to creating wellness groups, mind-body medicine is just one of several
- Important that the participants not feel marginalized
- Develop innovative programs, assess, report and disseminate

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# COURAGE



# SAVE THE DATE

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October 22-25, 2017

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International Conference to Promote Resilience,  
Empathy and Well-Being in Health Care Professions

WASHINGTON DC | USA | OCTOBER 22 - 25, 2017

CENTILE: Center for Innovation & Leadership in Education | Georgetown University Hotel & Conference Center

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MedStar Health

[CENTILEConference.org/2017](http://CENTILEConference.org/2017) / [CENTILE@ConferenceSolutionsInc.com](mailto:CENTILE@ConferenceSolutionsInc.com)



# www.aamc.org/wellbeing



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## Explore Initiatives

Discover programs to build capacity at your institution.

### By Topic

- [Improving Health Equity](#)
- [Integrating Quality](#)
- [Managing Talent](#)
- [Redesigning Care Delivery](#)
- [Transforming Medical Education](#)

### Programs by Mission Area

- [Medical Education](#)
- [Patient Care](#)
- [Medical Research](#)
- [Diversity and Inclusion](#)

## Strategic Priorities

Learn more about the AAMC strategic priorities

[Read more >](#)

## Well-being in Academic Medicine

“Our well-being, and the well-being of our teams, ultimately affects the health and well-being of our patients and communities.”

**Marsha Rappley, MD**  
**AAMC Chair Elect**

Well-being in academic medicine has emerged as a critical issue facing faculty, physicians, researchers, residents, and students. With this in mind, the AAMC dedicated its June 2016 Leadership Forum to a range of topics addressing depression, resilience, burnout, and increased suicide among physicians, residents, and students. The following pages contain resources to help explain and address the challenges.

Please let us know if you have any suggested books, articles, or other resources to share with your colleagues and we will consider including on these pages.

## AAMC Leadership Forum

The AAMC's 2016 Leadership Forum, held in Washington, D.C., included about 80 faculty, deans, CEOs, researchers, and others engaged in academic medicine and focused on wellness and resilience. The following are some key resources from the event:

- [Creating a Culture of Wellbeing and Resilience PDF](#) highlights key statistics, quotes, trends and

## Find Your AAMC Affinity Group

Visit the [Member Center](#) to access information including meeting registrations, AAMC services, the AAMC job board, key AAMC initiatives, AAMC publications, data, and AAMC affinity groups.

## Journal of Academic Medicine



*Academic Medicine*, the official monthly,

peer-reviewed journal of the AAMC, serves as an international forum for the exchange of ideas and information on undergraduate, graduate, and continuing medical education.

[Current Issue](#) [✉](#)



Accreditation Council for  
Graduate Medical Education

LOGIN

[Accreditation Data System \(ADS\)](#)

[ACGME Surveys](#)

[Resident Case Log System](#)

What We Do

Designated  
Institutional Officials

Program Directors and  
Coordinators

Residents and Fellows

Meetings and Events

Data Collection  
Systems

Specialties

[HOME](#) > [WHAT WE DO](#) > [INITIATIVES](#) > [PHYSICIAN WELL-BEING](#)

## WHAT WE DO

### OVERVIEW

- Number of Programs
- Education Site Verification

### ACCREDITATION

- Single GME Accreditation System
- Site Visit
  - The ACGME and The Accreditation Process
  - Accreditation Site Visit and Role of the Field Representatives
  - Evaluation Site Visit
  - Site Visit FAQs
  - Evaluation Systems

Self-Study

Milestones

Common Program Requirements

Duty Hours

Review and Comment

- Review and Comment Archive Index

### RECOGNITION

Osteopathic Recognition

### INITIATIVES

Clinical Learning Environment Review

## PHYSICIAN WELL-BEING

The ACGME is committed to addressing physician well-being for individuals and as it relates to the clinical learning environment. The creation of a learning environment with a culture of respect and accountability for physician well-being is crucial to their ability to deliver the safest, best possible care to patients. The ACGME is leveraging its resources in four key areas to support the ongoing focus on physician well-being: Education, Influence, Research and Collaboration.

Read CEO Thomas J. Nasca's recent [LETTER TO THE COMMUNITY](#)

***"We need to protect the workforce that protects our patients."***

— Tim Brigham, MDiv, PhD

Senior Vice President, Education

[Read more](#) **An Interview with Dr. Brigham about the ACGME's commitment to improving physician well-being.**



[Dr. Brigham Interview](#)

[Education](#)

[Influence](#)

[Research](#)

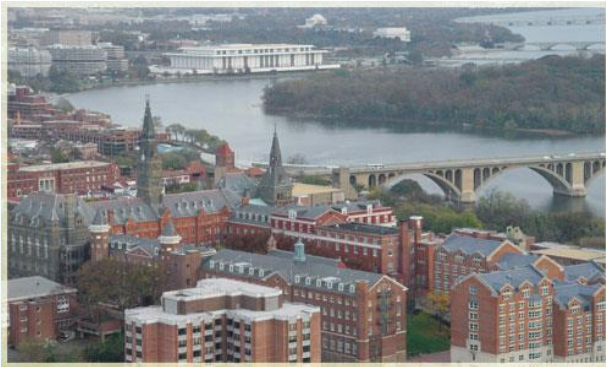
[Collaboration](#)

[Symposium](#)

Contact Us

[wellbeing@acgme.org](mailto:wellbeing@acgme.org)

# Special Thank You



**Nancy Harazduk, MSW, MEd,**

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