

## Integrating Wellness & Nutrition: Lessons from University of Cincinnati

#### Sian Cotton, PhD

Director, Center for Integrative Health and Wellness Director, UC Health Integrative Medicine Professor, Department of Family and Community Medicine University of Cincinnati College of Medicine

INTERACT

FOR HE<u>A</u>LTH

UNIVERSITY OF Cincinnati

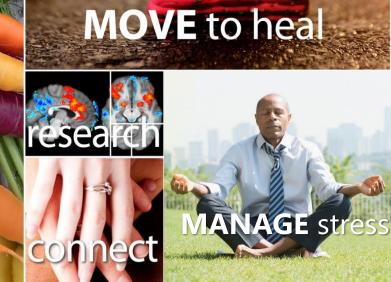




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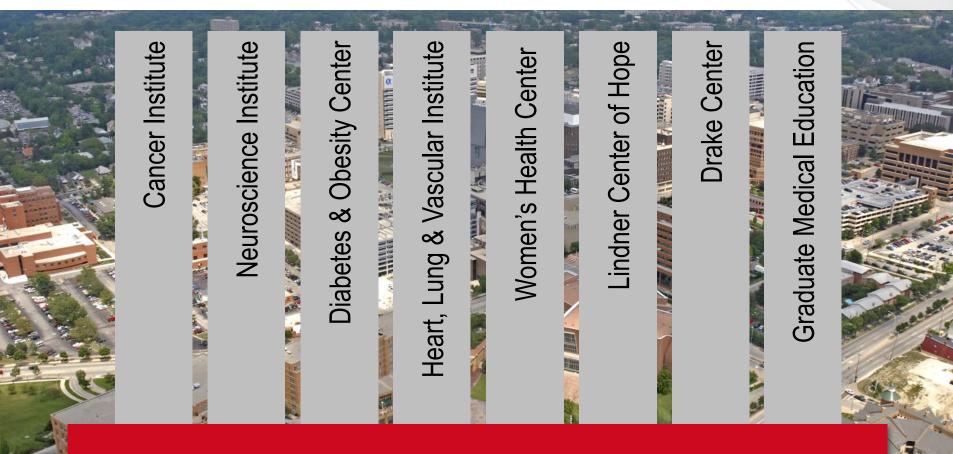
#### CENTER FOR INTEGRATIVE HEALTH & WELLNESS

## FOOD is medicine



www.med.uc.edu/integrative

# **Wellness Platform**



Center for Integrative Health & Wellness

# Objectives

- Briefly review the crisis of chronic disease and minimal attention to lifestyle education in medical schools and healthcare provider burnout as background
- 2. Highlight 2 programs at UC that constitute a preventive and educational approach to fostering well-being
- 3. Provide overview of first program: Turner Farm Student Wellness retreats
- 4. Provide overview of second program: Mind-Body course, modeled after Georgetown University
- Present information on development, outcomes, and sustainability plans for both programs as models



# Caveats

## Academic Health Center

## One Story



### THE PROBLEM

# Crisis of chronic disease: physical and mental disorders.

75% of chronic diseases are influenced by our behaviors / lifestyle

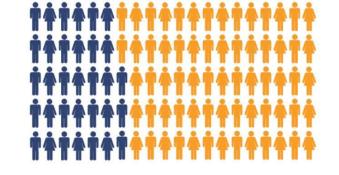
### PREVENTABLE

## Heart Disease

### Cancer

## Obesity







600,000 die year #1 cause of death in U.S. <u>Reversible</u> with diet 1 in 3 cancer cases are preventable with Lifestyle changes 7 in 10 overweight 33% obese in Cincinnati Lifestyle changes

# CHALLENGE prescribe lifestyle changes

PROBLEM not taught in medical schools

## Nutrition (Mis)education in US Medical Schools

#### USNEWS How Much Do Doctors Learn About Nutrition?



By Stacey Colino, Contributor | Dec. 7, 2016, at 9:15 a.m.

In recent years, it has become increasingly clear that diet plays a starring role in preventing and treating certain chronic diseases. And physicians are often on the frontlines of counseling patients about how their diets and other lifestyle habits can affect their health and weight – a reality that has gained added importance given the obesity epidemic. And yet, it turns out that only 29 percent of U.S. medical schools offer med students the recommended 25 hours of nutrition education, according to a 2015 report in the Journal of Biomedical Education.

#### See: The 10 Best Diets for Healthy Eating.

On average, U.S. medical schools offer only 19.6 hours of nutrition education across four years of medical school, according to a 2010 report in Academic Medicine. In a 2016 study, researchers at Case Western Reserve University examined data from 25 family medicine, internal medicine and OB-GYN medical residency programs throughout Ohio: What they found is that these programs averaged 2.8 hours of instruction on obesity, nutrition and physical activity counseling, and only 42 percent of them taught the residents techniques for how to perform health behavior counseling.

## **Integrative Medicine Education**

- NEW: Lifestyle Medicine and Wellness Curriculum Task Force
- Mindfulness Programs
  - Mind-Body Course
- Integrative Medicine Student Interest Group
- 4<sup>th</sup> Year Complementary Integrative Medicine Elective
- Interprofessional Initiatives across Academic Health Center
  - Turner Farm Student Retreats



**IMSIG** presentation Nov 2015



## 5<sup>th</sup> Annual Sanghvi Lecture

#### Nutrition and Mindfulness in an Era of Global Obesity and Diabetes





#### Mind-Body Interface in Health and Healing The Dr. Khushman V. Sanghvi Memorial Lectureship

UC Center for Integrative Health and Wellness

in collaboration with the UC Heart, Lung and Vascular Institute



transforming disease care to WELLNESS care



#### **Integrative Medicine: Fad or Frontier?**

#### Implications for Improving Public Health

Friday, Nov. 3, 2017

Noon to 1 p.m. Medical Sciences Building Kresge Auditorium

#### Margaret Chesney, PhD

Professor of Medicine, Emeritus University of California San Francisco Former Deputy Director, NIH National Center for Complementary & Integrative Health Immediate Past Chair, Academic Consortium for Integrative Medicine & Heath



Margaret Chesney, PhD

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# Program #1

## Turner Farm Student Wellness Retreats

## Turner Farm Teaching Kitchen



# **Program #1: Background**

- To transform Disease Care to Wellness Care, need to educate health providers
- Transformation starts with education of students

   traditional curriculum does not emphasize
   lifestyle modification
- Inter-professional learning grows into interprofessional team-based care
- Turner Farm's Teaching Kitchen as platform

# **Turner Farm's Mission**

Turner Farm operations promote connections between people of all ages and the land that feeds them, in body, mind and spirit.

Through education and example, we nurture understanding of the rhythms of nature, and our place in the natural world, fostering recognition of personal responsibility for stewardship of the land, ourselves and development of a nurturing



www.turnerfarm.org

# **Turner Farm**





# **Teaching Kitchen**



# **Student Wellness Retreats**

- Seventy-five students have participated in five wellness retreats
  - 6-hour Saturday retreats
- Students from: Colleges of Medicine, Nursing, Allied Health, Pharmacy and Health Promotion
- Sign-up via email fills within an hour
- Cost to student: \$10
- Philanthropy off-sets cost



Dr. David Eisenberg and Chef Adam Busby at Turner Farm Sept. 2016

# Turner Farm Hosted Harvest to Healing/Seed to Soul Dinners Sept. 23 & 24, 2016



# **Retreat Schedule**

9:30 - 10:00	Arrival/Refreshments	
10:00 - 10:15	Welcome and Introduction to Turner Farm	
<b>10:15 - 10:30</b> Wellness	Introduction to UC Center for Integrative Health and and the Teaching Kitchen Collaborative	
10:30 - 10:45	Opening meditation	
10:45 - 11:30	Foundations of Disease, Nutrition and Lifestyle didactics	
11:30 - 11:45	Q&A	
11:45 - 12:30	Break & Walking Tour of Turner Farm	
12:30 - 2:30	Chef and students prepare healthy meals while discussing fundamentals of healthy eating; hands-on teaching	
kitchen	experiential/tasting prepared dishes	
2:30 - 2:45	Mindful Eating Experiential	
2:45 - 3:15	Group Reflection, Discussion, Wrap-up	_









# **Retreat Evaluation**

## Presentations

- Quality 95% rated "excellent"
- Usefulness 85% reported it would be useful
- Length 82% said "just right"

### Experience

- Inter-professional exposure 89% agreed with retreat being inter-professional
- Enjoyment 100% would recommend to another student
- Environment 100% reported the space to be excellent

- Opportunities for Professional Change:
  - Advocating for patient lifestyle changes with greater confidence
    - "Being more prepared to advocate for patients to get dietetic consults"
    - "Talk more about the importance of diet for many diseases, have ready information about resources like Turner Farm for patients"
    - "Encourage moving more and eating whole foods rather than eat less exercise more"

- Opportunities for **Professional** Change:
  - Seeking more evidence-based knowledge regarding integrative health
    - "Use evidence to show patients the benefits of lifestyle change"
    - "Use knowledge of phytochemicals in disease prevention, use current research in practice as things change"
    - "Dig more deeply and evaluate more critically the medical literature especially regarding integrative medicine"

- Opportunities for **Personal** Change:
  - Improving dietary habits
    - "Becoming more mindful with food, better understanding/ listening to my body, spice up and provide variety to my life and meals"
    - "I'm inspired to make the small changes to my lifestyle and diet"
    - "I plan on incorporating a wider variety of textures/foods into each meal, I would have never expected mixing some of these foods together"

- Opportunities for Personal Change:
  - Incorporating mindfulness in self-care
    - "Be more mindful of returning to baseline"
    - "Plan on continuous personal growth especially in the mindfulness sphere"
    - "Use mindfulness to enjoy more of life"

## **Additional Comments?**

- "I've thoroughly enjoyed every minute of this experience, I believe everyone should be given the opportunity to experience this"
- "Absolutely loved this, learning and having a chance to discuss with other healthcare students from other fields"
- "Loved the tour, learned a lot, would love to know how to get others involved"

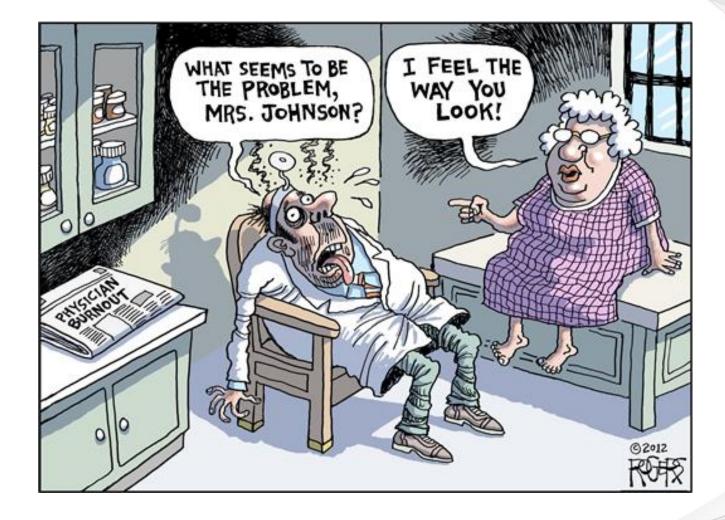
## **Conclusion/Future Directions**

- Student Wellness Retreats at Turner Farm were highly successful
  - Sought after Student Affairs promotes
  - Development of personal wellness skills
  - Increasing interest in Integrative Health
- Greatest challenge: funding/faculty time to sustain
- Future longitudinal student teaching kitchen sessions for continued healthy behavior change and knowledge

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# Program #2

## **Mind-Body Course**

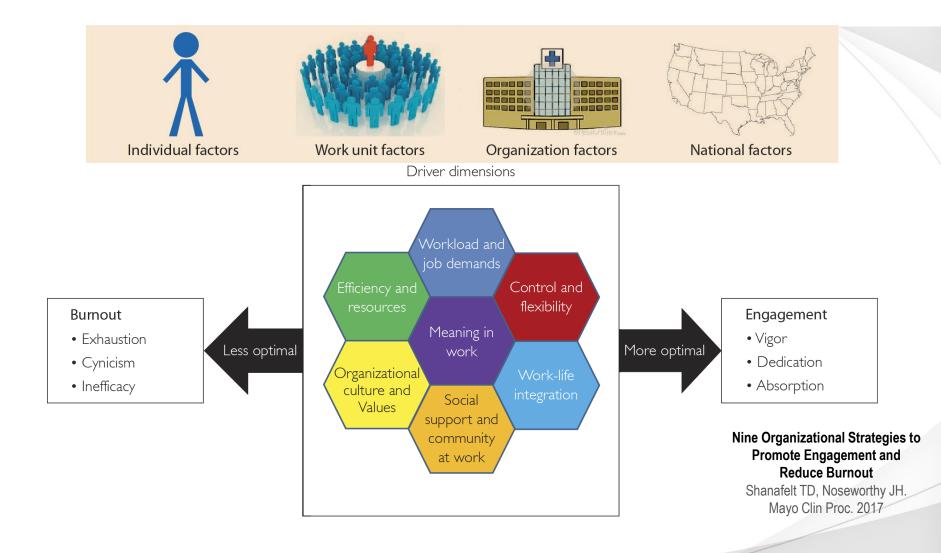


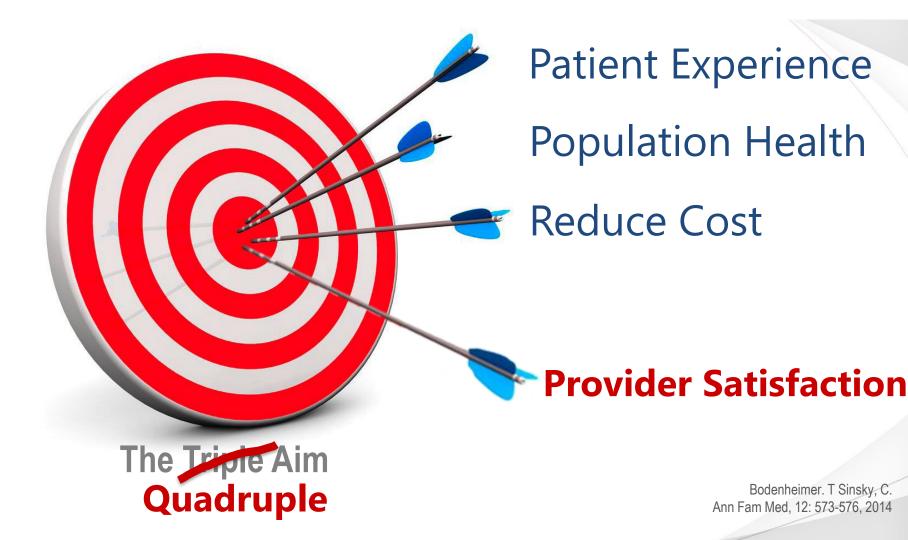


Shanafelt et al. Arch Intern Med. 172(18):1377-1385, 2012

- 1. Emotional Exhaustion
- 2. Depersonalization
- 3. Low Sense of Personal Accomplishment

"Burnout is a response to chronic stressors that wear on a person over time—not acute ones such as a big event or a big change" - Christina Maslach, PhD





MAYO CLINIC

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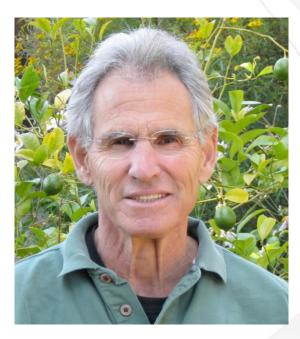
#### Physician Well-Being: Approach Summary

	Individual	Organizational	
Workload	Part-time status	Productivity targets Duty Hour Requirements Integrated career development	
Work Efficiency/ Support	Efficiency/Skills Training	EMR (+/-?) Staff support	
Work-Life Integration/ Balance	Self-care Mindfulness	Meeting schedules Off-hours clinics Curricula during work hours Financial support/counseling	
Autonomy/ Flexibility/ Control	Stress management/Resiliency Mindfulness Engagement	Physician engagement	
Meaning	Positive psychology Reflection/self-awareness Mindfulness Small group approaches	Core values Protect time with patients Promote community Work/learning climate	

Courtesy of Colin West, MD, PhD

### Mindfulness

"The awareness that emerges through paying attention, in a particular way, on purpose, in the present moment, and nonjudgmentally, to the unfolding of experience moment to moment."



Kabat-Zinn, Full Catastrophe Living, 1990/2013





# aetna





University of California San Francisco Articles

#### Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis

Colin P West, Liselotte N Dyrbye, Patricia J Erwin, Tait D Shanafelt

#### Lancet 2016; 388: 2272-81

Published Online September 28, 2016 http://dx.doi.org/10.1016/ S0140-6736(16)31279-X

See Comment page 2216

Division of General Internal Medicine and Division of Biomedical Statistics and Informatics (Prof C P West MD), Division of Primary Care Internal Medicine (Prof L N Dyrbye MD), Medical Library (P J Erwin MLS), and Division of Hematology (Prof T D Shanafelt MD), Mayo Clinic, Rochester, MN, US

Correspondence to: Prof Colin P West, Division of General Internal Medicine and Division of Biomedical Statistics and Informatics, Mayo Clinic,

Summary Background Physicia training and practisin own care and safety, quality and outcome

Methods In this syst Science, and the Edu to prevent and reduc provide physician-sp sources of evidence. potential eligibility of were changes in over score (and high depe changes in each outo The most commonly studied interventions have involved mindfulness, stress management, and small group discussions, and the results suggest that these strategies can be effective approaches to reduce burnout domain scores.

of both physicians in ionalism, physicians' han at present of the

FO, Scopus, Web of idies of interventions required studies to commonly accepted iders. We considered sed form. Outcomes nd depersonalisation Ference estimates for

**Findings** We identified 2617 articles, of which 15 randomised trials including 716 physicians and 37 cohort studies including 2914 physicians met inclusion criteria. Overall burnout decreased from 54% to 44% (difference 10% [95% CI 5–14]; p<0.0001; *I*<sup>2</sup>=15%; 14 studies), emotional exhaustion score decreased from 23.82 points to 21.17 points (2.65 points [1.67–3.64]; p<0.0001; *I*<sup>2</sup>=82%; 40 studies) and depersonalisation score decreased from 9.05 to 8.41

ORIGINAL CONTRIBUTION

CLINICIAN'S CORNER

#### 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		

RIMARY CARE PHYSICIANS REport alarming levels of professional and personal distress. Up to 60% of practicing physicians report symptoms of burnout,14 defined as emotional exhaustion, deperand low sense of accomplish

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 physidans in Rochester, New York, in a continuing medical education (CME) course in 2007-2008. The course included mindfulness meditation, self-aw areness 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.

sonalization (treating patients as Results Over the course of the program and follow-up, participants demonstrated in mindfulness (raw score A5.7 to 54.1; raw score change [A1.8.0; 05%

#### Improved well-being and mood; Improvements in mindfulness associated with increased empathy and reduced burnout

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

For editorial comment see p 1338.

Author Affiliations are listed at the end of this article. Corresponding Author: Michael S. Krasner, MD, De-partment of Medicine, University of Rochester School The consequences of burnout among practicing physicians include not only

Group, 2400 NV 14618 JAMA 302:1284-1293, 2009

www.lama.com

1284 JAMA, September 23/30, 2009-Vol 302, No. 12 (Reprinted)

GME available online at

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Downloaded from www.jama.com at University of Maryland on September 23, 2009

#### 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

#### Abbreviated Mindfulness Intervention for Job Satisfaction, Quality of Life, and Compassion in Primary Care Clinicians: A Pilot Study

Luke Fortney, MD<sup>1</sup> Charlene Luchterhand, MSSW<sup>2</sup> Larissa Zakletskaia, MA<sup>2</sup> Aleksandra Zgierska, MD, PbD<sup>2</sup> David Rakel, MD<sup>2</sup>

'Meriter Medical Wisconsin

<sup>2</sup>Department of Fa Medicine and Pub Wisconsin-Madise

#### ABSTRACT

**PURPOSE** Burnout, attrition, and low work satisfaction of primary care physicians are growing concerns and can have a negative influence on health care. Interventions for clinicians that improve work-life balance are few and poorly understood. We undertook this study as a first step in investigating whether an abbreviated mindfulness intervention could increase job satisfaction, guality of life, and com-

...participating in an abbreviated mindfulness training course adapted for primary care clinicians was associated with reductions in indicators of job burnout, depression, anxiety, and stress.

eviated ints in rticipants resilto assess

Ann Fam Med 11:412-420, 2013

## **Conclusion 1**

Although the rates of chronic stress and burnout among physicians are rising, practicing *mindfulness* can reduce burnout and increase empathy

#### Physician (Provider), Heal Thyself





### What is the **Problem**?

Levels of stress and burnout alarmingly high amongst:

- → Medical students and residents
- → Nursing, pharmacy and allied health
- → Law students
- $\rightarrow$  Arts and music trainees

### **Implications of Stress and Burnout**

#### Professional

- → More likely to commit errors
- → Negative impact on co-working relationships
- → Decreased empathy
- → More unprofessional behaviors

#### Personal

- → Increased substance use
- → Reduced quality of life

Balogun et al., 2002; Deary et al., 2003; Dyrbye et al., 2010; Lloyd et al., 2002; Neumann et al., 2011; Shanafelt, 2003, 2012

# **Efficacy of Mind-Body Medicine**

There is considerable **scientific evidence** that **mindbody therapies** are beneficial for many health problems:

- → Headaches
- Insomnia
- → Anxiety/Depressive Symptoms
- → Stress
- → Chronic low back pain
- → Disease/Treatment-related symptoms

Astin et al Mind-Body Medicine: State of the Science, Implications for Practice. J Am Board Fam Pract 16:131-147, 2003



GEORGETOWS UNIVERSITY School of Medicine

Georgetown University School of Medicine

- → Trained over 100 faculty as group leaders
- → 80-100 first/second-years take course annually to learn stress reduction techniques to apply to daily life

After groups, students report:

- → Greater connections and self-discovery
- → Improved academic function
- → Lower stress levels



### **Mind-Body Skills Program**

9-week course teaches students adaptive stress management skills using mind-body techniques to foster self-awareness and self-care

	Week 1 Orientation/ Introduction & Drawings I	Week 2 Autogenic Training/ Biofeedback	Week 3 Sitting Meditation	Week 4 Walking Meditation
Week 5 Inner Guide Imagery	Week 6 Journaling	Week 7 Movement Meditation	Week 8 Forgiveness Meditation	Week 9 Drawings II Closing

**Over 300 students have participated at UC** 

#### More Colleges are Focusing on Teaching Students in Mind-Body Medicine



Georgetown University School of Medicine medical students, residents

University of Cincinnati (medicine, allied health, nursing, pharmacy, CCM, DAAP, Law, Arts and Sciences, Cincinnati Children's)

University of Alabama at Birmingham (medical students) University of Louisville (medical students, faculty) University of Florida (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)

## **Support for Program**

# INTERACT FOR HEALTH





# **Mind Body Skills Facilitators**

#### **College of Medicine**













#### **College of** Nursing













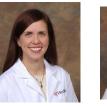


Program Coordinator



Data Manager











# **Mind Body Skills Facilitators**













In memoriam

**College-Conservatory** of Music



**College of** 

Design







#### **College of** Law













Hebrew Union College



**Academic Health Center** 

#### 10 New Mind-Body Skills Facilitators!

















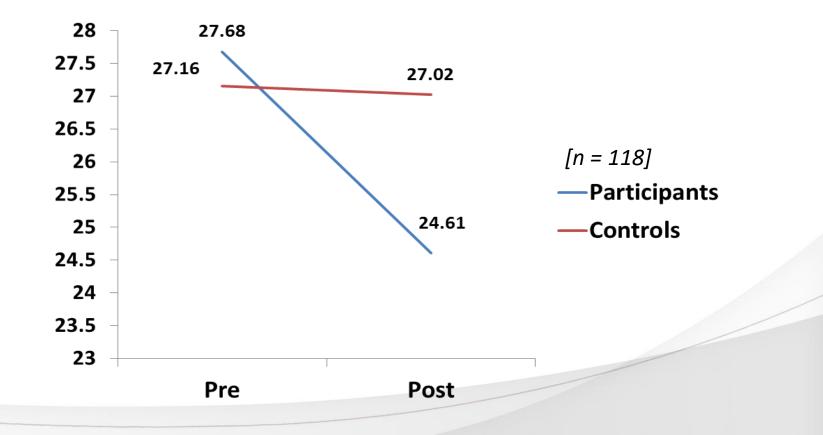


### **Quantitative Measures**

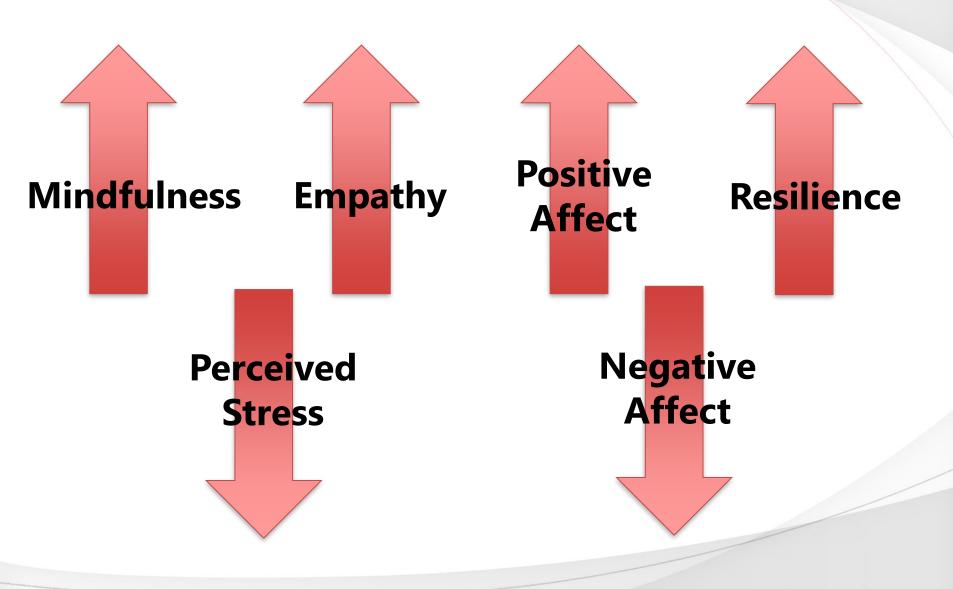
Measure	Scale/Tool	# of Items
Resiliency	2013-2017: Brief Resiliency Scale	6
Empathy	2013-2016: Interpersonal Reactivity Index (IRI)	21
	2017: IRI - Perspective Taking and Empathic Concern subscales only	
		14
Stress	2013-2017: Perceived Stress Scale (PSS)	10
Positive and Negative Affect	2013-2017: Positive and Negative Affect Schedule (PANAS)	20
Mindfulness	2013-2016: Cognitive and Alternative Mindfulness Scale (CAMS-R)	12
	2017: Five Facet Mindfulness Questionnaire (FFMQ)	
		15
Attraction to Group	2013-2016: Group Attitude Scale	20
Self-Reported Health	2016-2017: In general, would you say your health isExcellent,	1
	Very Good, Good, Fair, or Poor?	
	(Interact for Health)	
Burnout	2017: Maslach Burnout Inventory emotional exhaustion and depersonalization	2
Depression, Anxiety, Fatigue,	2017:PROMIS <sup>®</sup> (Patient-Reported Outcomes Measurement	16
and Sleep Disturbance	Information System)	

### **Perceived Stress**

- Significant difference between groups over time (*p* = .00)
- Only the mind-body group reported a significant decrease in stress (p = .00)



### **Student Outcomes**



## **Qualitative Measures**

Construct	Question
Impact as person/student	How did this course impact you as a student and as a person, if at all?
Impact as physician/ professional	Do you believe that this course will contribute to your professional work? If so, how?
Attitude toward medical school and/or profession/field	How has this course changed your attitude toward school, if at all?
What participant would tell others	If you could tell your Dean one thing about this experience what would it be?
	If you could tell another student on thing about this experience what would it be?

# How has this course helped you?

It has helped me to slow down. Not to make such rash decisions or take rash actions. I can appreciate and recognize the present much better. I can also just be calm and meditate and focus on my own breathing.

This course made me feel more empathetic to those around me. Listening to other people share what they are going through day to day, the ups and the downs, made me appreciate how everyone has something they are going through, and it is important to be mindful of that. I also gained an appreciation of how helpful it can be for someone just to have an outlet to simply talk without fear of judgement.

...school has this way of making you doubt your abilities and has this attitude that if you aren't perfect then you aren't good enough. This course taught me to accept who I am and that I don't need to be perfect. Once I stopped stressing over the need to make no mistakes and recognized that I might need help I saw my grades increase exponentially - I rarely was getting average and now I'm at the average or above it.

I feel better focused and better able to respond to stress. This has helped me to better deal with difficult scenarios while working with patients and studying.

# Will this course contribute to your work as a physician/provider?

Yes - this course completely changed my way of thinking for the better. I hope to help some patients with what I've learned in this course, but regardless, I know I've improved myself, which will help me be a better physician.

Absolutely. I really hope to incorporate some of the things we learned into my practice later on down the line, but also, I think it will help maintain a healthy lifestyle in terms of balance, stress, and happiness as my life gets more complex and my free time becomes more and more limited. Absolutely. I will be better equipped to take care of myself, which will translate into better care for patients. Additionally, I can now recommend certain techniques to patients as a form of complementary/alternative medicine.

#### Do you feel confident in your ability to bounce back from difficulties and stressors (i.e. resiliency)?

I feel that my ability to cope in the moment has improved. For example, when constantly remunerating past painful experiences while trying to sleep, mindfulness meditation has helped me calm myself and clear my head a bit.

Yes, I used to get really stressed out before taking a practical or test and now I realize it's not going to help to stress/freak out and just study as much as I can and things will turn out okay.

Absolutely! While participating in this course, my academic curriculum was much more involved than the previous semester, often times seeming overwhelming. I found that all I had to do was accept my stress and visualize succeeding in my assignments and tasks. Once I was able to accomplish this (theoretically) simple task, I found I was more productive and content.

# What would you tell other students?

I would highly recommend this course! The mindfulness techniques that I learned in this course have changed how I view myself and my coursework. I feel empowered to face the challenges that lie ahead.

Do it. Put all preconceived notions, skepticism, and worry aside and do it. You'll see a side of medical students you may not have known was there. You'll gain a sense of community and place that you won't even know you needed. It is wonderful.

Take this workshop. If you do one thing with your time take this workshop. You owe it to yourself and all the people you care about in your life. Some of things you learn in this course may not be your thing, but I guarantee you some of things you learn will be things that stick with you for the rest of your life. It will change the way you think about and approach stressful situations, I would be very surprised if at the end of it, you weren't a happier, more laid back person.

# What would you tell your Dean?

Almost all students would likely benefit from at least one of the techniques taught during this class. Even if you are skeptical about mindbody medicine, taking this elective helps builds relationships and trust between students from different colleges which leads to more empathy and compassion. I believe that you will have happier, calmer, kinder students if more resources related to mind/body medicine are made available.

Keep this program going & expand it to more people! I know classmates unable to get a spot who would have greatly benefited from it.

This was a much needed experience and I would push to get this class/awareness of mind-body meditation out to everyone in the College.

Please continue to support the health of students. I think it's clear that medical students are pretty anxious and stressed people, and that a number of the students suffer from depression. I feel that the support for them is not always there and have frequently worried about reaching out for fear of being labeled later in my career. These groups help encourage a healthier mindset and coping skills.

# **Summary and Final Thoughts**

- Wellness, through nutrition, movement, mindfulness and connectivity is critical to expose students to early on
- Experiential versus didactic-only
- What is Required?
  - Faculty modelling
  - Integration, rather than "one-offs"
  - Resources

"Tell me and I forget, teach me and I may remember, involve me and I learn"



# THANK YOU!

http://med.uc.edu/integrative

sian.cotton@uc.edu