
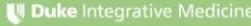
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***How Mindfulness and Compassion Can  
Free You from Anxiety, Fear, and Panic***


**A talk presented to the  
Clinical Lecture Series at the UNC Chapel  
Hill School of Social Work  
September 17, 2012**


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**In Praise of Social Work!**

*I slept and dreamt that life was joy.  
I awoke and saw that life was service.  
I acted and behold, service was joy.*  
--Tagore

*The best way to find yourself is to lose yourself in the  
service of others.*  
--Mahatma Gandhi


*Service to others is the rent you pay for your room  
here on earth.*  
--Muhammad Ali


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**Main Themes of This Talk**


- We live in the present moment and life happens in this moment
- Anxiety and fear are not an identity, but only impermanent conditions arising in this moment
- Using inner technologies of mindfulness and meditation, we can train ourselves to see the true nature of the experience of anxiety and fear, and to establish a more effective and liberated relationship with these intense feelings

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**You already have what you need for  
taking a view of your inner life and  
lived experience, moment-by-moment,  
that is wiser and that leads to  
profound transformation and more  
effective action**


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**What is Mindfulness?**

- Awareness that is reflective, non-judging and accepting
- Natural human capacity
- Cultivated by meditation
- Effective way to reduce stress & anxiety
- Powerful means for connecting with our deepest and best qualities as human beings

Kabat-Zinn, J. (2003). *Clinical Psychology Science and Practice*, 10, 144-156.

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Each breath, each moment of lived experience, is  
your opportunity....


..to drop into mindful awareness simply  
by:

*Paying attention, on purpose, not  
trying to fix or judge anything, and  
being friendly, including, and allowing  
of what is happening—here and now.*

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**Relax—observe—allow**



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**A Closer Look at...**

**Fear, Anxiety, and Stress**

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**The Problem**

- The nature and impact of fear, anxiety,  
and stress.....
  - on individuals
  - on health care
  - on society and our world

**IS HUGE!**

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**Anxiety Disorders Are Common**

- Approximately 40 million Americans 18 years  
old and older have an anxiety disorder.
- Specific phobias and social phobia are the  
most common anxiety disorders.
- PTSD is more common than Panic Disorder
- Agoraphobia is the least common anxiety  
disorder.

*Archives of General Psychiatry, 2005, June; 62 (6)*

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**And.....**

**Anyone can experience fear or  
anxiety without the condition being a  
“disorder”!**

**And, when that happens.....**

**Fear and anxiety are widely known  
to cause trouble!**

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For example:

*Nothing is so much to be feared as fear.*  
--Henry David Thoreau

*The only thing we have to fear is fear itself.*  
--Franklin Delano Roosevelt

*There is perhaps nothing so bad and so dangerous in life as fear.*  
--Jawaharlal Nehru

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Fear & Anxiety

- Definition of fear: the reaction in mind and body to a threat or danger
- Definition of anxiety (and panic): the fear reaction in mind and body that is out of proportion to the threat, or is happening in the absence of a true threat

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The Psychobiological Nature of Fear and Anxiety

The psychobiological experience of fear occurs concomitantly with a pattern of stress-related physiological activation designed to promote survival by avoiding danger through fight-flight-or freeze behavior.

Barlow, C.H. (ed.), 2002 in *Anxiety and its disorders: The nature and treatment of anxiety and panic*, New York, NY: Guilford Press.

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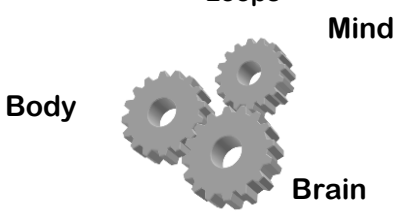
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The Power of Fear and Anxiety to Distort Our Thinking and Behavior

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Mind-Body Circuits and Feedback Loops



Mind

Body

Brain

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Within the Individual:

Sensory input leads to...

“freeze, fight, or flight” response, then...

Perception/cognition and “inner narrative” arise, then....EMOTIONAL REACTION.  
(this all happens VERY, VERY Fast!)

Then,

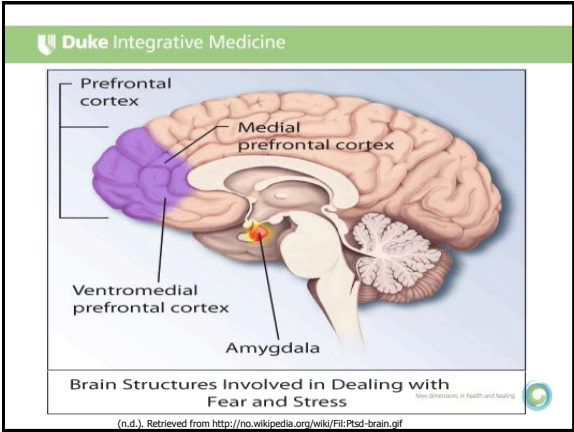
Why does the reaction become anger? (what can anger teach you?)

Beneath Anger (is) Fear...

Beneath Fear (is) a Fixed Belief...

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**An (oversimplified) summary:**

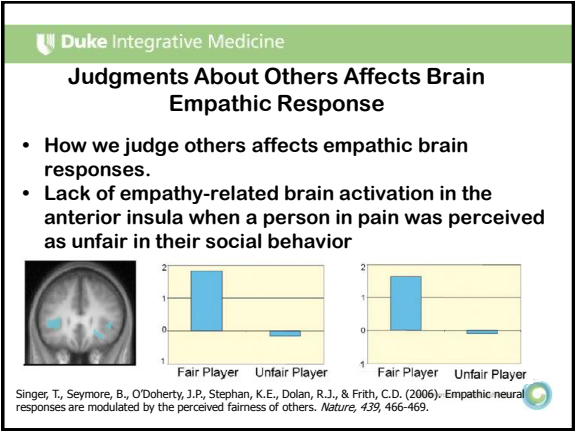
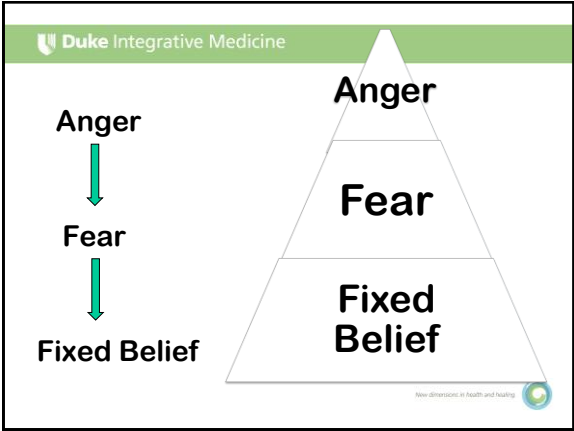
Sensory input occurs and....

activates a perception/cognition process that...

involves mobilizing memory and ideas/beliefs and that....

gives rise to, and sustain, emotions and behaviors.

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**The Power and Danger of Fixed Beliefs**

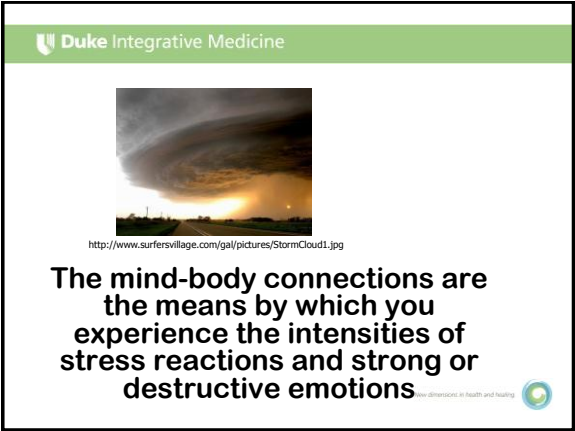
*Man is what he believes.* --Anton Chekhov (1860 - 1904)

*Reading made Don Quixote a gentleman, but believing made him mad.* --George Bernard Shaw (1856 - 1950)

*Every man prefers belief to the exercise of judgment.* --Seneca (4 B.C. - AD 65)

*Convictions are more dangerous enemies of truth than lies.* --Friedrich Nietzsche (1844 - 1900)

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### In any moment...

In the course of your personal life...

In the flow of your work life...

In any place your life takes you...


*What perceptions are arising, and  
What beliefs are operating?  
What is happening in your body and mind?  
What choices are you making as a result?*

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### The Nature of Stress

“Man is not disturbed by events,  
but by the view he takes of them.”



- Epictetus  
Greek Philosopher


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### The Power of.....

### Your “Inner Narrative”

- what you are telling yourself,  
moment-by-moment, about what is  
happening and why

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### The Fear Reaction in Mind and Body: the critical role of thoughts

Fear and negative affects stimulate widespread  
sympathetic nervous system activation.  
(Thayer & Brosschot, 2005)

Fearful cognitions and interpretations can manifest  
in somatic symptoms, and the same physiological  
responses arise for either real or imagined threats.  
(Brosschot, et al., 2005;2006; Thayer & Brosschot, 2005)

Example of how “depressogenic thinking” can  
transform momentary emotional distress into  
longer-lasting mood disturbance  
(Segal, Williams, & Teasdale, 2002)

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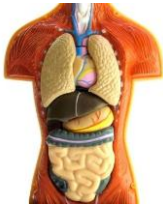
### Types of Thoughts That Can Activate the Stress Response


- imagined scenarios of threat or failure
- self-criticism or judgment
- recall of disturbing events
- rumination about a negative event
- perceived stress
- hostility
- denial or avoidance
- comparison to an imagined ideal

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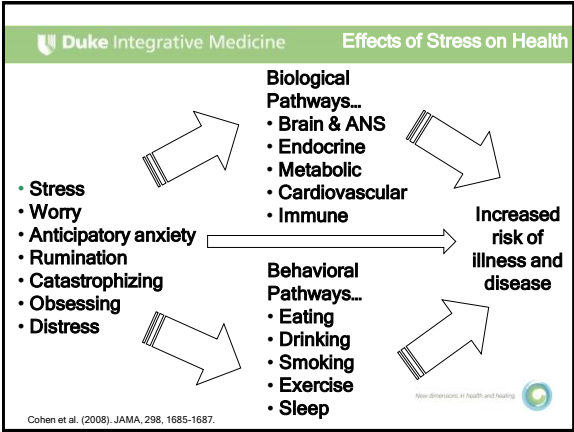
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### Effects of Stress and the Stress Reaction on the Mind and Body



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Here are ways in which some key body systems react.

**NERVOUS SYSTEM**  
When stressed — physically or psychologically — the body suddenly shifts its energy resources to fighting off the perceived threat. In what is known as the “fight or flight” response, the sympathetic nervous system signals the adrenal glands to release adrenaline and cortisol. These hormones make the heart beat faster, raise blood pressure, charge the digestive process, and boost glucose levels in the bloodstream. Once the crisis passes, body systems usually return to normal.

**MUSCULOSKELETAL SYSTEM**  
Under stress, muscles tense up. The contraction of muscles for extended periods can trigger tension headaches, migraines and various musculoskeletal conditions.

**RESPIRATORY SYSTEM**  
Stress can make you breathe harder and cause rapid breathing — or hyperventilation — which can bring on panic attacks in some people.

**CARDIOVASCULAR SYSTEM**  
Acute stress — stress that is momentary, such as being stuck in traffic — causes an increase in heart rate and changes the shape of the heart muscle. Blood vessels that direct blood to the large muscles and to the heart dilate, increasing the amount of blood pumped to these parts of the body. Repeated episodes of acute stress can cause inflammation in the coronary arteries, thought to lead to heart attack.

**ENDOCRINE SYSTEM**  
The hypothalamus, a small gland in the brain, sends signals from the hypothalamus, causing the adrenal cortex to produce — cortisol and the adrenal medulla to produce — epinephrine — sometimes called the “stress hormones.”

**GASTROINTESTINAL SYSTEM**  
Stress may prompt you to eat much more or much less than you usually do. If you eat more on different foods or increase your use of tobacco or alcohol, you may experience heartburn, or acid reflux.

**REPRODUCTIVE SYSTEM**  
In many women, acute stress, such as that caused by a fight or flight response, can affect the normal functioning of the reproductive system. Chronic stress can impair testosterone and sperm production and cause impotence.

**Other effects:**  
Stress can also affect digestion and which nutrients your intestines absorb. It can also affect how quickly food moves through your body. You may find that you have either diarrhea or constipation.

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**And, As You Probably Know,  
Social Work Professionals are NOT  
Immune from Stress, Burnout,  
Compassion Fatigue, and their  
Consequences!**

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**Stress and Social Work**

- Google search: “stress and social work”  
1,870,000 results!
- social workers experience “higher levels of stress and burnout than comparable occupational groups”  
*Journal of Mental Health, 11(3), 2002*
- many social workers experience secondary traumatic stress, and “a significant minority may meet PTSD”  
*Oxford Journals, Social Work, 52 (1), 2007*

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**Emotional upheavals that tax caregiver resilience...**

- Dealing with difficult colleagues: work with a jerk, poor communication, gossip, being judged
  - Conflicts with others: “don’t understand,” “don’t show respect,” “poor pain management”
- Bedside stress: prolonging life too long, “torturing” patients, end of life issues, dealing with suffering, death, dying
- Staffing, workload problems, “too many hats”

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**And,**

**Social Workers are not the only health care professionals who are subject to stress reactions, burnout, compassion fatigue, and their consequences!**

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### The prevalence and impact of post traumatic stress disorder and burnout syndrome in nurses.

Mealer M, Burnham EL, Goode CJ, Rothbaum B, Moss M. (2009). *Depress Anxiety*. 26(12):1118-26.  
Division of Pulmonary Sciences and Critical Care Medicine, Department of Medicine, University of Colorado School of Medicine, Denver, Colorado. [Meredith.Mealer@UCDenver.edu](mailto:Meredith.Mealer@UCDenver.edu)

- \* **18%** (61/332) met diagnostic criteria for PTSD
- \* **86%** (277/323) met criteria for BOS

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**“Almost half of doctors admit feeling burned out” -- Raleigh, N.C. *News & Observer* 8/22/12**

- 7288 MD’s responded
- Measures of: Emotional exhaustion, depersonalization, and sense of professional accomplishment
- 46% reported at least one sign of burnout
- 37% worked longer than 60 hours/week
- Emergency, family, and internal medicine physicians were the most likely to feel burnout symptoms

*Shanafelt, et al., (2012) Archives of Internal Medicine, August 21*

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### Burnout and Self-Reported Patient Care in an Internal Medicine Residency Program

Tart D. Shanafelt, MD; Katharine A. Bradley, MD, MPH; Joyce E. Wight, MD; and Anthony L. Back, MD

**Background:** Burnout is a syndrome of depersonalization, emotional exhaustion, and a sense of low personal accomplishment. Little is known about burnout in residents or its relationship to patient care.

**Objective:** To determine the prevalence of burnout in medical residents and explore its relationship to self-reported patient care practices.

**Design:** Cross-sectional study using an anonymous, mailed survey.

**Setting:** University-based residency program in Seattle, Washington.

**Participants:** 115 internal medicine residents.

**Measurements:** Burnout was measured by using the Maslach Burnout Inventory and was defined as scores in the high range for medical professionals on the depersonalization or emotional exhaustion subscales. Five questions developed for this study assessed self-reported patient care practices that suggested suboptimal care (for example, “I did not fully discuss treatment options or answer a patient’s questions” or “I made . . . errors that were not due to a lack of knowledge or inexperience”). Depression and at-risk alcohol use were assessed by using validated screening questionnaires.

**Results:** Of 115 (76%) responding residents, 87 (76%) met the criteria for burnout. Compared with non-burned-out residents, burned-out residents were significantly more likely to self-report providing at least one type of suboptimal patient care at least monthly (63% vs. 21%; *P* = 0.004). In multivariate analyses, burnout—but not sex, depression, or at-risk alcohol use—was strongly associated with self-report of one or more suboptimal patient care practices at least monthly (odds ratio, 8.3 [95% CI, 2.6 to 26.5]). When each domain of burnout was evaluated separately, only a high score for depersonalization was associated with self-reported suboptimal patient care practices (in a dose-response relationship).

**Conclusion:** Burnout was common among resident physicians and was associated with self-reported suboptimal patient care practices.

*Ann Intern Med.* 2002;136:358-367. [www.annals.org](http://www.annals.org)  
For author affiliations, current addresses, and contributions, see end of text. See related article on pp 384-390 and editorial comment on pp 391-393.

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### Burnout and Suicidal Ideation among U.S. Medical Students

Dyrbye, et al., (2008). *Annals of Internal Medicine*, 149(5): 334-341.

- \* **50% of medical students burned out**
- \* **more than 10% have suicidal ideation**

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### The Power of Fear and Anxiety to Distort Our Thinking and Behavior

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### Up to 60% of Primary Care Physicians report symptoms of burnout.

**“burnout”:**

- emotional exhaustion
- depersonalization (feeling disconnected from oneself and others, treating patients as objects)
- low sense of accomplishment

Krasner, et al. *JAMA*, Sept. 23, 2009

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### **Burnout: results from a clinician's interaction with the work environment**

- **Causes include:** feelings of frustration, powerlessness, and inability to achieve work goals
- **Key dimensions:** emotional exhaustion, feelings of cynicism, depersonalization, detachment, and ineffectiveness
- **Highly motivated professionals with intense investment in their profession at higher risk**

Kearney, et al., *JAMA*, March 19, 2009



### **Compassion Fatigue**

- Preferred terms are: *Secondary Traumatic Stress Disorder* or *Vicarious Trauma*
- Common among victims of trauma and those who work directly with victims of trauma
- Is "the trauma that comes from taking care of traumatized people"
- First diagnosed in nurses in the 1950's
- Sufferers can exhibit hopelessness, decreased joy and pleasure, feelings of stress and anxiety, and a pervasive negative attitude.



### **Compassion Fatigue in Health Care**

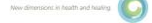
- Evolves from the relationship between clinician and patient over time.
- More likely in the patient who is dependent and whose suffering is continuous and unresolvable.
- The basic human desire to help in the clinician has become degraded or is absent. Clinician may still care, but the basic desire to help is diminished or absent.
- Likened to PTSD
- Elements of hyperarousal, avoidance, reexperiencing appear in the clinician
- May lead to burnout.

Kearney, et al., *JAMA*, March 18, 2009



### **Human Factors Contributing to Medical Errors**

- Fatigue, *NEJM*, 2004, 351 (18)
- Depression and Burnout, *BMJ*, 336, March 2008
- Diverse patients, unfamiliar settings, and time pressure, *JAMA*, 2002, 288



**"We do not need to suffer to remove suffering from others."**

**--Thich Nhat Hanh**



### **Factors That Mitigate Compassion Fatigue and Burnout**

- Developing self-awareness
- Developing self-awareness to enhance self-care (when self-awareness permits the clinician simultaneously to attend to and monitor the needs of the patient, the work environment, and his or her own subjective experience).


Kearney, et al., (2009). *JAMA*, 301 (11).





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# What is Mindfulness?



Awareness

Heart/Mind

<http://www.prairiewindzen.org/calligraphy/mindfulness.html>

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# In any moment...

In the course of your personal life...

In the flow of your work life...

In any place your life takes you...

*What perceptions are arising, and  
What beliefs are operating?  
What is happening in your body and mind?*

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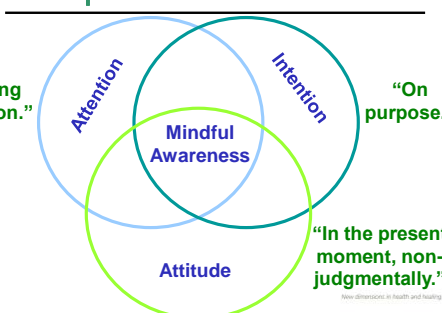
# The Remedy

(for going on “autopilot” and burnout)

- Practicing mindfulness
- Practicing compassion
- Practicing self-care and self-compassion

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# Components of Mindfulness



“Paying attention.”

“On purpose.”

“In the present moment, non-judgmentally.”

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# Practicing Mindfulness

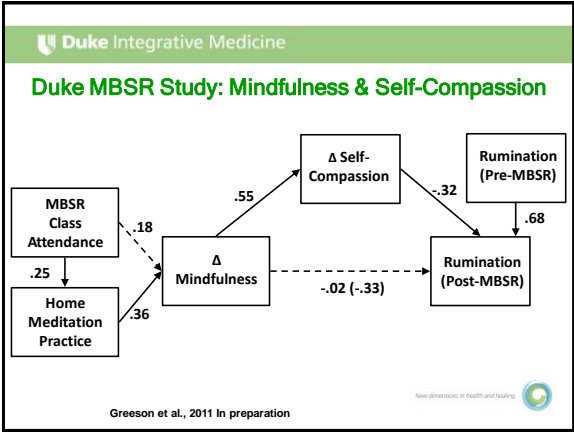
- Mindfulness Practice Exercise to give a sense that what we are talking about—mindfulness and the importance of living more in the moment—is NOT an abstraction

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“Mindfulness is strongly related to compassion, and it is compassion that serves as a source for all healing intentionality.”

- Stefan Schmidt, Ph.D.  
*Mindfulness and Healing Intention: Concepts, Practice, and Research Evaluation*





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### How Are You Treating Life?

*“Do not despise the world, for the world too is God.”*

—Muhammad

*“Perhaps everything that frightens us is, in its deepest essence, something helpless that wants our love.”*

—Rainer Marie Rilke

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### Compassion

- *Compati/compassus*: sympathy
- *Com*—together/ *pati*—to suffer

**“to feel sorrow for the sufferings or trouble of another or others, accompanied by an urge to help...”**

Webster’s New World College Dictionary, 4<sup>th</sup> Edition

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### What is Compassion?

“Compassion is not an entity “we” show toward the “other.”....We need to lose the dichotomy. It is not something I have, and give to you. It manifests in the relationship between beings....

If we are wholeheartedly engaged in each moment, responding to what is front of us, not judging or labeling ourselves or others, then I believe that compassion cannot fatigue.”

-- Lisa Marr, M.D.

*Journal of Palliative Care*, 12(8) 2009

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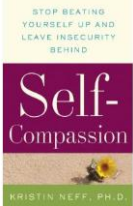
### Self-Compassion

- Self-compassion is extending compassion to one’s self in instances of perceived inadequacy, failure, or general suffering.


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### Self-Compassion: Stop Beating Yourself Up and Leave Insecurity Behind


Released by William Morrow April 2011



Kristin Neff, Ph.D.  
Associate Professor  
Human Development and Culture  
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University of Texas at Austin  
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## Elements of Self-Compassion


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**Self-kindness**

**Common humanity**

**Mindfulness**

Source: <http://www.self-compassion.org>


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## How Effect the Remedy?

**Practice! Practice! Practice!**

**Contemplative/Reflective Practice is:**  
**Direct experience, not thinking,**  
**paying attention on purpose and non-**  
**judgmentally**  
**Practice—It's up to you!**


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## *Metta for Caregivers*

- May I offer my care and presence unconditionally, knowing it may be met by gratitude, indifference, anger, or anguish.
- I care about your pain, and I cannot control it.
- May I remain in peace, and let go of expectations.
- I wish you happiness and peace, and I cannot make your choices for you.
- May I find the inner resources to truly be able to give.
- May I see my limits compassionately, just as I view the suffering of others.
- May this experience help me to open to the true nature of life.


--from Roshi Joan Halifax and Sharon Salzberg


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**“Whether one believes in religion or not—there isn’t anyone who doesn’t appreciate kindness.”**


**H.H. the Dalai Lama**


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## Mindfulness-Based Stress Reduction (MBSR)

- Teaches mindfulness meditation and application of mindfulness in daily life
- Emphasis on what a person can do to help themselves—using innate capacity for relaxation and attention
- Classroom-based training for anyone regardless of religious orientation


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## Mindfulness-Based Stress Reduction

- 8-week program to reduce stress by training attention & cultivating mindful awareness
  - Est. in 1979 by Dr. Jon Kabat-Zinn at UMASS
  - Help patients cope with stress, pain and illness
  - Complement to medical treatment – not a substitute
  - 200+ MBSR programs in the U.S.
- Duke’s program est. in 1998 by Dr. Jeff Brantley
  - Winter, spring, summer, fall programs
  - 2.5 hr class once a week, plus daily home practice
  - Graduate classes available, plus quarterly 1 day retreats
  - Over 4000 people have enrolled in the program since 1998

[www.umassmed.edu/cfm](http://www.umassmed.edu/cfm)  
[www.dukeintegrativemedicine.org](http://www.dukeintegrativemedicine.org)

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## Typical MBSR Program


---

- Eight week class
- 2–2.5 hours each week
- Participants have diverse motivations that are health-based
- Variety of mindfulness methods taught
- Daily home practice
- Formal and informal meditation
- Day of Mindfulness

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# Scientific Evidence for Practicing Mindfulness

## Selected studies and clinical examples

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## Mindfulness Studies in MEDLINE


**N = 1,084 total**  
**N = 157 RCTs**  
**N = 10 meta-anal.**

Year	Mindfulness Studies per year
1990	0
1991	0
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
1998	0
1999	0
2000	0
2001	0
2002	0
2003	1
2004	3
2005	3
2006	5
2007	10
2008	11
2009	17
2010	23
2011	30

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# Effects of Practicing Mindfulness on the Body and Mind



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## Mindfulness Practice: reported physical health benefits

- chronic pain** (Kabat-Zinn, 1982, 1985; Morone, et al., 2008)
- cancer** (Specia, et al., 2000; Carlson, et al., 2007)
- insomnia** (Kreitzer, et al., 2005)
- psoriasis** (Kabat-Zinn, et al., 1998)
- type 2 diabetes** (Rosenzweig, et al., 2007)
- fibromyalgia** (Grossman, et al., 2007)
- rheumatoid arthritis** (Zautra, et al., 2008)
- mixed medical diagnoses** (Reibel, et al., 2001)
- organ transplant patients** (Gross, et al., 2004)
- heart disease** (Sullivan, et al., 2009)



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**Mindfulness Practice: reported mental health benefits**

- depression (Jain, et al., 2007)
- relapsing depression (Teasdale, et al., 2000)
- depression in bipolar patients (Williams, et al., 2008)
- anxiety (Kabat-Zinn, et al., 1992; Weiss, et al., 2005; Orsillo & Roemer, 2005)
- substance abuse (Marlatt & Chawla, 2007; Bowen, et al., 2009)
- eating disorders (Baer, 2006)
- binge eating (Kristeller, et al., 1999)
- ADHD (Zylowska, et al., 2008)
- aggressive behavior in developmental disability (Singh, et al., 2007)

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**Is There Psychological Research to Support Practicing Mindfulness to Manage Fear and Anxiety?**

- Mindfulness training increases ability to focus attention (Jha, et al., 2007)
- Trait mindfulness is associated with lower levels of worry, thought suppression and experiential avoidance (Baer, et al., 2006)
- Mindfulness training is associated with a significant reduction in ruminations (Feldman, et al., 2006)

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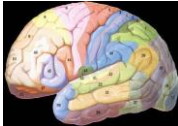
**Is There Clinical Evidence to Support Mindfulness Training for Managing Fear and Anxiety?**

- Multiple literature reviews conclude that mindfulness training is associated with lower levels of anxiety, depression, anger, and worry in a variety of clinical populations (Baer, 2003; Brown, Ryan, & Cresswell, 2007; Grossman, et al., 2004)
- Mindfulness offers benefits when incorporated into treatments for generalized anxiety disorder (Roemer & Orsillo, 2002; Roemer, et al., 2006)
- Mindfulness training has been associated with reduced levels of anxiety in a variety of medical conditions including cancer (Carlson, Specia, et al., 2000, 2007), and chronic pain (Kabat-Zinn, et al., 1982, 1985, 1986; Rosenzweig, Greeson, et al., 2009)

New dimensions in health and healing

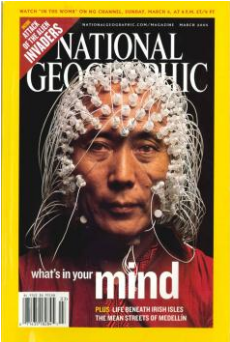
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**Effects of Mindfulness on the Brain**



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**Is There Evidence from Neuroscience Research to Support Mindfulness Training?**

- Greater left prefrontal cortical activity is associated with mindfulness practice (Davidson, Kabat-Zinn, et al., 2003)
- Reduced activity in areas of the brain associated with OCD found in patients who practiced mindfulness (Schwartz & Begley, 2002)
- Higher levels of trait mindfulness is associated with a greater ability to engage the prefrontal cortex (PFC) to manage emotional reactions in the amygdala (Creswell, et al., 2007)
- Mindfulness training over 8 weeks associated with greater neural activity in areas of the brain believed to subserve self-awareness (dorsolateral prefrontal cortex and medial prefrontal cortex) (Farb, et al., 2007)

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### Neuroplasticity

“Neuro” = neurons, cells of the brain  
“plasticity” = malleability, flexibility

Brain's ability to change its structure and function

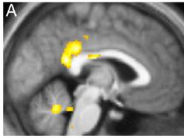
- Expanding or strengthening circuits that are used
- Weakening those that are rarely engaged

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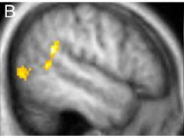


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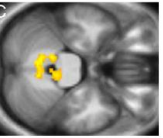
### Increased grey matter density following Mindfulness-Based Stress Reduction (MBSR)



Posterior cingulate cortex & cerebellum




Temporo-parietal junction



Cerebellum & brainstem

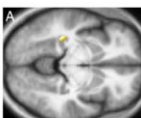
From Hölzel et al. (2011). NeuroImage

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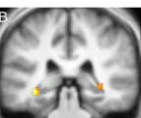


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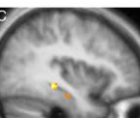
### Increased hippocampus density following MBSR



A



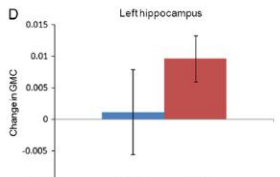
B



C

D

Left hippocampus





Change in GMC

Controls MBSR

From Hölzel et al. (2011). NeuroImage

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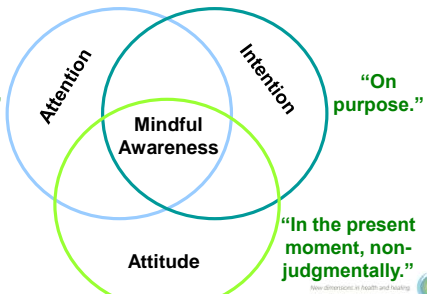


STEWART

"The meaning of life, and make it snappy -- we're double parked."

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### Components of Mindfulness



“Paying attention.”

Attention

Intention

“On purpose.”


Mindful Awareness

Attitude

“In the present moment, non-judgmentally.”

Adapted from Shapiro et al. (2006). Journal of Clinical Psychology.

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### Mindfulness supports:

- **“Presence”**—inhabiting the present moment, including your own body, and available with awareness that is non-judging, allowing, and compassionate.
- **Self Awareness**— includes locating and knowing intimately your own changing inner landscape, moment-by-moment.
- **Self Care**— includes the very act of mindful attention, and the informed and healthy choices that follow from self awareness.

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Mindfulness and Psychotherapy

Mindfulness can be seen as  
“a crucial ingredient in the therapy relationship, and as a technology for the psychotherapist to cultivate personal therapeutic qualities.”  
Germer, C., Siegel, R. & P. Fulton (2005). *Mindfulness and Psychotherapy*, New York, NY: Guilford Press, page 9.

therapeutic qualities cultivated by mindfulness practice include:


- attention and presence
- compassion for self and for others
- empathy
- emotion regulation skills

Shapiro, S. & L. Carlson, (2009). *The Art and Science of Mindfulness: Integrating Mindfulness Into Psychology and the Helping Professions*, American Psychological Assoc. Press.

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Effects of Mindfulness on Mental Health

- **MBSR for Health Care Professionals**
  - ↓ **stress**
  - ↓ **burnout**
  - ↑ **self-compassion**
  - ↑ **life satisfaction**



http://www.michigan.gov/images/mdch/j0314367\_197520\_7.jpg

“Originally I signed up for this class to learn how to deal with my stress at work. What I have learned is by *taking care of me*, the stress just falls away.” - Anonymous

Irving et al. (2009). *Complementary Therapy in Clinical Practice*.  
Shapiro et al. (2005). *International Journal of Stress Management*.

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Benefits of Mindfulness Practice for Health Care Professionals

- reduced anxiety and depression, and increased spirituality in pre-med and medical students (Shapiro & Schwartz, *Behavioral Medicine*, 1998)
- fewer medical errors for physicians (Epstein, *JAMA*, 1999)
- enhanced ability to conduct patient-centered interviews for medical residents (Smith, et. al. *Academic Medicine*, 1999)
- lower psychological distress in medical students (Rosenzweig et al., *Teaching and Learning in Medicine*, 2003)
- better outcomes for psychotherapy patients (Grepmair et al., *Psychotherapy and Psychosomatics*, 2007)
- improved physician well-being and coping skills (Irving, et. al., *Complementary Therapies in Clinical Practice*, 2009)

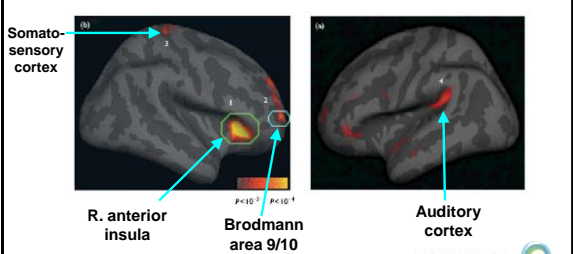
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Sub-cortical areas: Insula

- Very involved in **self awareness**, particularly awareness of **body sensations** (interoception) and **emotions**.
- Also very involved in **empathy** for the emotions of other people
- By tuning into your own body sensations and emotions, you physically thicken the cortical tissues that are involved in both self-awareness and in empathy for other people.

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Meditation experience is associated with increased cortical thickness



Lazar et al. (2005). *NeuroReport*, 16: 1893-97.

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“Why is mindfulness so sought after in this moment, and so necessary?...We long for some degree of effective balance and wisdom that supports meaningful, embodied, and significant work—the work of making a difference in the world, of adding value and beauty, of individually and collectively waking up to the full range of human intelligences and capacities we share for wisdom, ease of being, and kindness.”

--Jon Kabat-Zinn



### In Conclusion...

#### Main Themes of This Talk

- We live in the present moment and life happens in this moment
- Anxiety and fear are not an identity, but only conditions arising in this moment
- Using inner technologies of mindfulness and meditation, we can train ourselves to see the true nature of the experience of anxiety and fear, and to establish a more effective and liberated relationship with these intense feelings

### What Is the Connection Between Being Present and Being Healthy?

- Attention leads to awareness
- Awareness leads to insight and understanding
- Insight and understanding lead to increased choices

**“Meditation practice isn’t about trying to throw ourselves away and become something better. It’s about befriending who we already are.”**

**--Pema Chodron**

### Practicing Mindfulness

“Mindfulness practice means that we commit fully in each moment to being present. There is no “performance.” There is just this moment.”

--Jon Kabat-Zinn

*Wherever You Go, There You Are.* (2005). Page 22.