

Mindfulness, Clinical Care, and Healthcare Reform

Spirituality, Religion, and Health Interest Group

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The background of the slide is a solid blue color. In the lower right quadrant, there are several sets of concentric circles, resembling ripples in water, rendered in a lighter shade of blue. These circles are of varying sizes and are positioned in a way that they appear to be spreading out from the right side of the slide.

What is mind-body medicine?

- Mind-body medicine focuses on the relationships among the mind, body, brain, and behavior produces interventions that use these connections to achieve and maintain health (NCCAM 2004)
- Much of holistic medicine assumes mind-body-spirit unity
- Virtually all “non-Western” and pre-modern medical systems were/are holistic in this way

The mind-body split

- “The cure of the part should not be attempted without treatment of the whole. No attempt should be made to cure the body without the soul, and, if the head and body are to be healthy, you must begin by curing the mind. For this is the great error of our day in the treatment of the human body, that physicians first separate the soul from the body.”
--Plato, *Charmides*

terminology

- Mind
 - Spirit
 - Soul
 - Consciousness
 - Energy
 - *Qi* and *prana*
- I think of all these terms as related and similar, though not equivalent

Chronic stress and health

- Fear (a perceived threat) activates the “fight or flight” response: hypothalamus-pituitary-adrenal (HPA) axis
- Adrenals excrete stress hormones (adrenaline): we are ready for action
 - Slows digestion; reduced absorption of nutrients
 - Represses the immune system
 - Chronic inflammatory process (diabetes, heart disease)
 - Interferes with thinking (blood flows to hindbrain and away from the prefrontal cortex)
- Evidence suggests that stress plays a pivotal role in developing disease (Innes et al. 2007; Black 2003; Hemingway and Marmot 1999)

Chronic stress


- When the fight or flight response is activated repeatedly due to our thoughts: regrets about the past, worries about the future
- When the HPA axis is activated but there is nothing concrete to fight or flee
- Playing the “fear-tape” over and over again, perhaps subconsciously, eventually puts our bodies into overload (adrenal fatigue)
- Mind-body practices help us stay focused in the present moment, and to diminish fear

How to cope?

- Eliminate stressors?
- Medicate (tranquilizers, alcohol)?
- Change your perception?



When you are frightened:

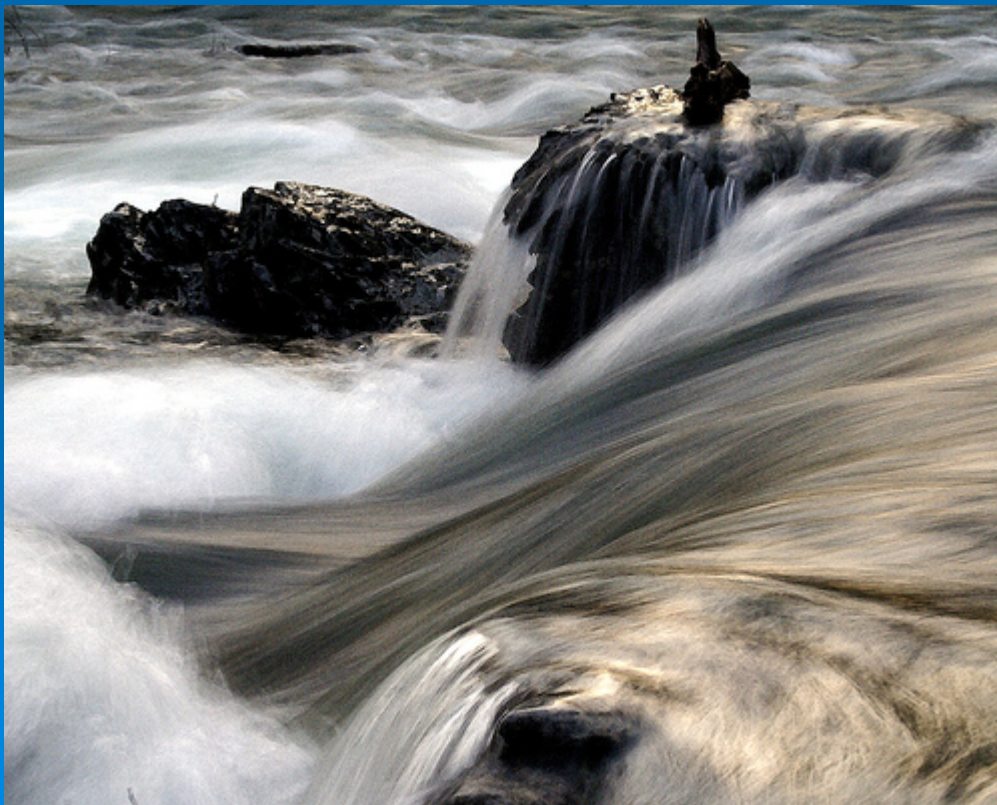
- You are dumber – blood flows to your hindbrain and away from your forebrain
 - Your digestion slows down, as blood flows to the limbs – compromised energy reserves
 - Your immune system is weakened – energy is rerouted to emergency mobilization
 - The body is on 'red alert' and normal functions are suspended
- 

Stress and the mind

- Most of the stress we experience is self-generated
- It is our thinking that causes us to be afraid (not a tiger or bear)
- The mind churns out thoughts in a constant stream
- Becoming aware of these thoughts (mindful):
 - Allows us to experience the consciousness within which the thoughts and feelings arise (we are not our thoughts) – who are we?
 - Allows us to question our thoughts – are they true?

It is the difference between:

- Being carried along by a rushing river
- Standing on the bank watching the river



Stress tests on-line

- http://www.lessons4living.com/stress_test.htm
- http://stress.about.com/library/health-test/bl_stress_and_health_test.htm

Meditation



Forms of meditation

- **Mindfulness Based Stress Reduction (MBSR) – clinical**
 - Buddhist in origin
- **Buddhist forms**
 - Zen (Japanese)
 - Shambhala (Tibetan)
 - Vipassana (Insight Meditation – Theravada Buddhism)
- **Vedic meditation**
 - Use of mantra and mudras
 - 5,000 years old
- **Transcendental meditation (TM) – Maharishi Mahesh Yogi**
 - Vedic in origin; developed in 1950's; adopted by celebrities
- **Christian contemplative traditions, etc.**
- **Walking, yoga, qigong and tai chi, movement meditation (anything can be meditative if done mindfully)**

Mindfulness-Based Stress Reduction



- Secular form of meditation developed by Kabat-Zinn and colleagues for clinical settings
- Significant scientific study of MBSR
- Used for all types of mental and physical diseases and conditions

What it is and what it isn't

- Meditation IS about observing the mind
- Meditation IS about going within
- Meditation IS about focusing on the breath, or mantra, or image
- Meditation IS NOT making your mind “blank” or striving to transcend



Meditation:
focused attention in the present moment



Meditation and clinical research

- Hypertension
- Asthma
- Chronic illness
- Chronic pain
- Dementia
- Cognitive impairment
- Depression / anxiety
- Menopause symptoms
- Insomnia
- Stress management
- Eating disorders
- Obesity
- Diabetes II
- Rheumatoid arthritis
- Psoriasis
- Post Traumatic Stress Disorder (PTSD)

Meditation changes your brain

- Studies done by Yale, Harvard, Massachusetts General Hospital have shown that meditation increases gray matter in the brain and slows down certain brain deterioration. The experiment included 20 individuals with intensive Buddhist "insight meditation" training and 15 who did not meditate. The brain scan revealed that those who meditated have an increased thickness of gray matter in parts of the brain that are responsible for attention and processing sensory input. The increase in thickness ranged between four and eight thousandths of an inch ($3.175 \times 10^{-6}m$ - $6.35 \times 10^{-6}m$). The amount of meditation is directly proportional to the increase in gray matter. The study also show that meditation helps slow down brain deterioration due to aging.

[[Harvard University Gazette: Meditation found to increase brain size](#) [Meditation Associated With Increased Grey Matter In The Brain](#)]

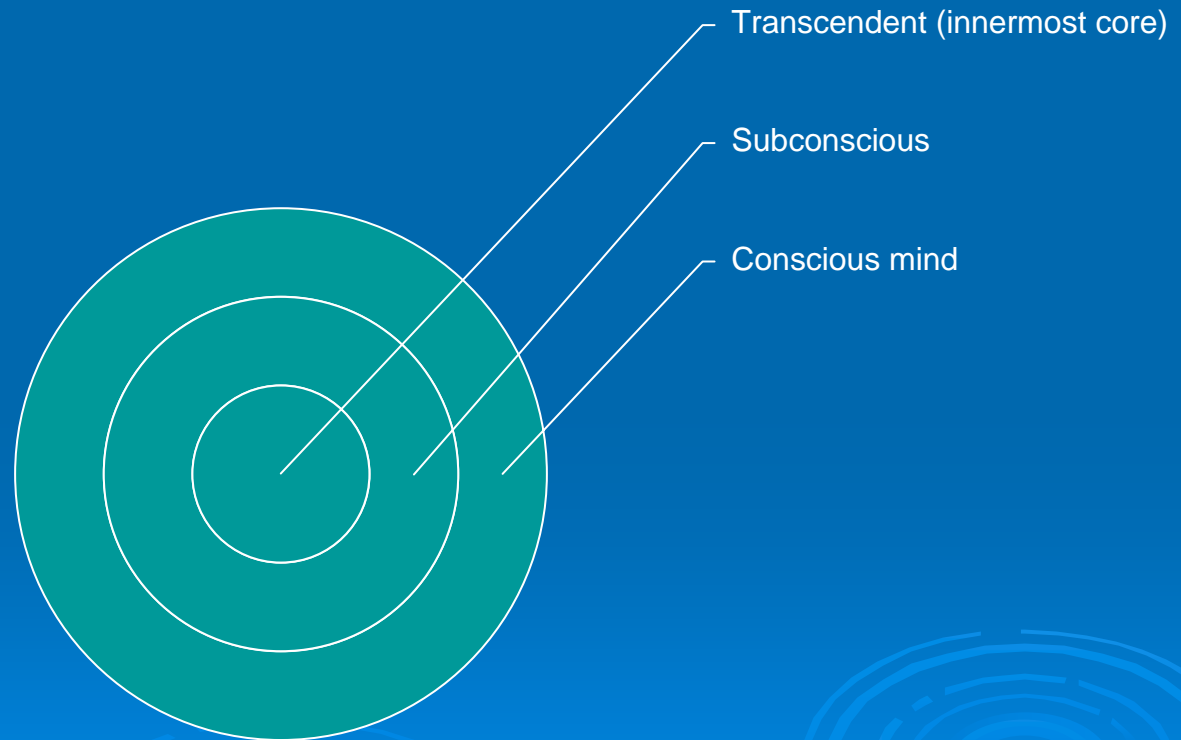
Meditation and the brain

- Our brains – not just our minds -- respond to the practice of meditation (Newberg et al. – numerous studies)
 - Huge implications for brain plasticity (we can influence our brain circuitry and structure!)
- Meditation improves memory and attention (Amishi Jha)
- Meditation and the cultivation of compassion (Lutz et al.)
- Meditation improves mood (Carlson et al. 2001, etc.)
- Meditation enhances immune system functions (Davidson, Kabat-Zinn et al. Psychosomatic Medicine 2003)

Recent clinical studies of meditation and immunity

- Meditation improves immunity through modulating the stress response (Davidson et al. 2003)
- Six weeks of meditation training resulted in lower levels of distress and inflammation in response to stress (Pace et al. 2009)
- Cancer patients receiving meditation training have decreased stress symptoms and better immune system biomarkers (Carlson et al. 2004; Witek-Janusek et al. 2008)
- These studies suggest that meditation interrupts stress pathways and strengthens the immune system

Meditation: a journey to the center of consciousness



on health and homeostasis



"We are coming to understand health not as the absence of disease, but rather as the process by which individuals maintain their sense of coherence (i.e. sense that life is comprehensible, manageable, and meaningful) and ability to function in the face of changes in themselves and their relationships with their environment."

—Aaron Antonovsky (1987). *Unraveling the Mystery of Health: How People Manage Stress and Stay Well*

Mindfulness and Spirituality

- Meditation (mindfulness) helps us to connect with in-dwelling spirituality
- Enhances “spiritual support” (the subjective feeling of connection with spirit)
- Mackenzie et al. 2000 – spiritual support
- Feeling connected with spirit functions like social support, modulating stress response
- Reduces feelings of fear, while promoting feelings of peace

Mindfulness and Health Professionals

- Diminishes burnout
- Reduces clinical errors
- Supports clinical decision making
- Facilitates doctor-patient communication
- May reduce fear of litigation
- Assists in all aspects of humanism and professionalism (e.g., ethical behavior, integrity, compassion, healing presence)

Mindfulness and Aging

- Epel et al. “Can Meditation Slow Rate of Cellular Aging?” 2009
 - Hypothesis: meditation – positive mental states – stress-buffing – decelerates cellular aging
 - Leads both to increased sense of control AND
 - Decreased need for control (acceptance)
 - Fascinating exploration of how mind influences what happens on a cellular level

Mindfulness and Healthcare Reform

- Current system too costly due to over-reliance on medical technology and treatment after disease manifests
- We need more preventive medicine AND
- More mind-body interventions
- The science actually supports clinical use of meditation in general and MBSR in particular
- What is needed is change in the culture

Mindfulness and healthcare reform

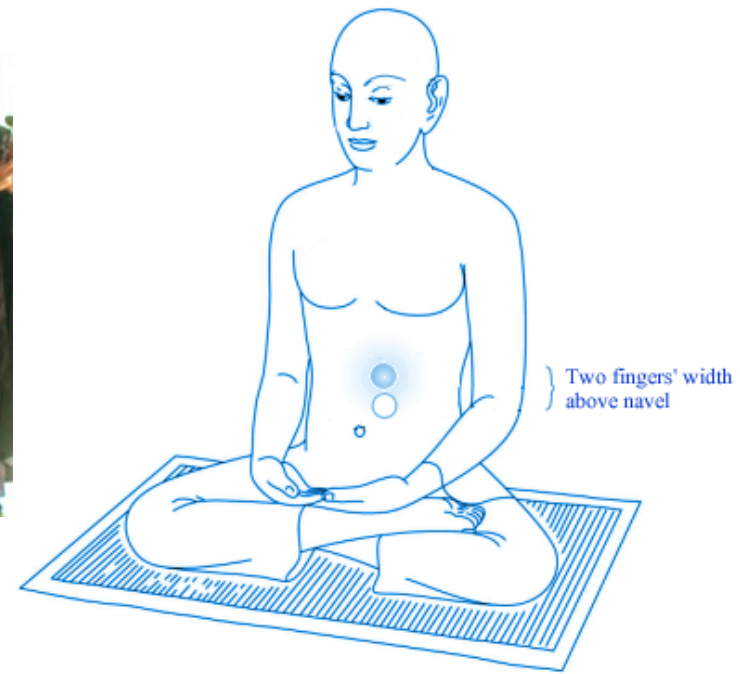
- Mindfulness (and other mind-body practices) can help people become stress-hardy, preventing disease
- By intervening early in the disease formation process modulating the stress response, we can prevent serious conditions from taking root
- Mindfulness can be used as a cost-effective primary or adjunct intervention for a range of conditions and diseases
- Mindfulness practices help people make self-supportive lifestyle changes (eating, drinking, smoking, exercise, et cetera)

Local resources

- Penn Program for Mindfulness
<http://pennmedicine.org/stress/>
- Philadelphia Shambhala Center
<http://philadelphia.shambhala.org/>
- Th. Jefferson University – MBSR
<http://www.jeffersonhospital.org/cim/article5030.html>

On-line Resources

- www.eMindful.com
 - Instruction in the virtual classroom
- www.himalayaninstitute.org
 - Training in yoga and meditation
 - Meditation CD's; yoga videos and equipment
- www.mindfulnesscds.com
 - Mindfulness CD's (MBSR)
- www.mindfulschools.org
 - A program in Oakland CA to introduce mindfulness into public schools



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