The Resilient Woman: Through Mindfulness and Meditation

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Stress Is Ubiquitous

- Women’s lives are stressful
- An example
- The stress response: an ancient solution that doesn’t always fit today’s problems
HOW FEAR AFFECTS THE WHOLE BODY

Central Nervous System
Perception - Narrowed
Memory - Coarse, Imprecise
Learning - Blocked
Conditioning - Defense
Tendency - Regress or Perseverate
Expectancies - Negative
Tone - Flee or Destroy

Muscular System
Tension
Ready for Action
Jaws Clench
Body Braces for Action

Autonomic Nervous System
Heart rate ↑
Blood pressure ↑
Oxygen need ↑
Breathing rate ↑
Palms, face sweat
Blood sugar ↑
Adrenalin flows
Digestive tract → shunts blood to muscles
Blood vessels constrict in hands and face

Image from Sapolsky, 2005
STRESS

AUTONOMIC SYSTEM

PARAVENTRICULAR NUCLEUS

VASOPRESSIN

B-ENDORPHIN

GnRH PULSE GENERATOR

LH FSH

OVARY

ESTRADIOL PROGESTRONE

HPG INHIBITION

BEHAVIORAL ACTIVATION

SYMPATHETIC SYSTEM

ADRENAL MEDULLA

EPINEPHRINE

ADRENAL CORTEX

CORTISOL

HPA ACTIVATION

METABOLIC CARDIO-VASCULAR ACTIVATION

Ferrin, M. Stress and the Reproductive Cycle, JCE & M; Vol 84; No 6. 1999
What is the Relaxation Response?

- The relaxation response (RR) is a state which is elicited by many mind-body practices, including meditation, tai chi, and yoga.
- The RR state is conceptually the opposite of the stress response.
- RR is accompanied by physiological changes such as decreased heart rate, decreased respiratory rate and increased exhaled nitric oxide.
Mindfulness

“Mindfulness is awareness that arises through paying attention, on purpose, in the present moment, non-judgementally.”

—Jon Kabat-Zinn
• Traditions in many cultures
• Meditation breaks the train of everyday thought, by adopting a non-judgmental attitude toward thoughts and feelings
• It’s not a contest: there’s no such thing as competitive meditation
• You can’t blank the mind
• Achieving sustained focus is a journey, not a destination
• Completely normal and expected: a cycle of sustained focus, mind wandering, distraction awareness, and reestablishing focus
SAVASANA:

Your eyes are quiet, your ears are quiet, your brain is quiet...

What time is it? Oh, God! I'm gonna miss my meeting!

What's that little pain in my left arm? A pinched nerve? A heart attack? Oh no! I bet it's a heart attack!!!

Will I ever amount to anything? I'm wasting my life!

What the hell is wrong with me? I bet I'm the only one here who's not totally relaxed!
Cognitive Changes Associated with Meditation

• ↑ attention
• ↑ working memory
• ↑ functional connectivity within the brain
• ↓ reactivity to negative emotional stimuli
• ↑ metacognitive awareness

• Possible mechanism: meditation experience is associated with increased cortical thickness

Mind-Body Practice Regulates How Key Genes Are Turned On and Off

- Enhanced expression of genes associated with:
  - energy metabolism and mitochondrial function
  - insulin secretion
  - telomere maintenance

- Reduced expression of genes linked to:
  - inflammatory response
  - stress-related pathways

- Potential paths for positive health effects

Bhasin MK et al. 2013. PLoS ONE 8:e62817
Findings on Mind-Body Practices at Midlife

- **Hot Flashes and the RR**
  - Reduced frequency, intensity and bother
  - Reduced anxiety and depression
  - Modest evidence for yoga, meditation and relaxation therapies for reducing vasomotor symptoms
  - Clinical hypnosis: reduced frequency, severity and interference
  
  Irvin & Domar 1996; Freedman & Woodward 1995; Carmody 2011; Innes 2010; Elkins 2013

- **Insomnia and the RR**
  - Yoga: decrease in insomnia, menopausal symptoms; improved QOL and resilience to stress.
  - MBSR: improved sleep quality, QOL, anxiety and perceived stress
  - Clinical hypnosis: improved sleep

  Alfonso 2012; Carmody 2011; Elkins 2013
Resiliency Toolbox

- Relaxation Response
  - 20 min./day
  - A practice that fits you
- Minis
- Mindfulness
- Sleep
- Nutrition
- Exercise
- Humor
- Social Support
An Invitation

- Our next annual conference is this Oct 19-21, 2017. You’re invited!
- Online courses are always available.
- More info at the BHI website: www.bensonhenryinstitute.org