Training the Brain to Heal Painful Habits

BY ALEXANDRA T. MILSPA WH, PhD

Objectives

- Explain how stress, trauma, and pain affect our brains and nervous system
- Describe consequences of these physiological changes
- Experience brain exercises and therapeutic approaches that heal and restore the whole self

But wait, there’s more!

Do you dream of a better life?

Let’s start with a stretch!

- Yogis call it “tadasana” = Mindful standing pose
- What you should know about Power Poses (see research by Amy Cuddy)
- Open the chest to help your body breathe
- Diaphragmatic breathing – allow the exhalation to be longer than the inhalation
- Helpful inversion poses – legs above the Heart

Power Poses

- Open the chest to help your body breathe
- Diaphragmatic breathing – allow the exhalation to be longer than the inhalation
- Helpful inversion poses – legs above the Heart
Trauma and Dis-ease of the Body

Includes secondary trauma (i.e. Mirror Neurons)

Shifting Perspectives

Descartes' Pain Model

Separateness ———————— Togetherness

Present-Day Pain Model

So...

What's happening up there?
Hardware Matters

Areas of Brain that Change with Stress:
- Amygdala
- Hippocampus
- Anterior Cingulate Cortex
- Cerebral Cortex
- Hypothalamus
- Thalamus
- Limbic System
- Insula
- Orbital Frontal Cortex

Keep in mind:
- All involved in perception of nociception
- All change shape and function within 10-14 days of chronic stress/trauma/pain
- Talk therapy can't access or rehab all parts
- Mindfulness-Based Stress Reduction (MBSR) restores majority of brain's hardware and function*
  *20 minutes per day for 14-30 days

Effects of these hardware changes:
- 🕐 executive functions
- 🕐 focus
- 🕐 perception
- 🕐 inhibition
- 🕐 sleep
- 🕐 working memory
- 🕐 short & long-term memory
- 🕐 Anxiety & depression

↑ ANS
Autonomic Nervous System

↑ ANS = ↓ Immune System

Long-term:
- Chronic Pain
- Anxiety/panic Disorders
- Autoimmune Diseases
- Increased Inflammatory Response
- Post-Traumatic Stress Disorder (PTSD)
- Need for immediate gratification = increased risk of unhealthy habit formation
Signs to look for in Trauma

- Anger
- Aggressiveness
- Defensiveness
- Reactive
- Impulsive
- Poor focus/attention
- Sleep disturbances
- Bossy/need for control
- Tantrums
- Hitting
- Ridigity
- Hyperactive
- Anxiety
- Instability
- Delays in reaching physical, language, or other developmental milestones

Signs of Secondary Trauma

- Fear
- Guilt
- Sense of persecution
- Anger and cynicism
- Inability to empathize/numbing
- Addictions
- Grandiosity: an inflated sense of importance related to one's work
- Feeling helpless and hopeless
- Dissociative moments
- Inability to listen/deliberate avoidance
- Chronic exhaustion/physical ailments
- Marinling
- Inability to embrace complexity
- Diminished creativity
- Hyper vigilance
- A sense that one can never do enough

“Although firsthand experience with trauma leads to personal suffering, it can be sublimated into social or artistic action and thus can serve as a powerful agent for social change.”
- Bessel A. van der Kolk, trauma specialist
Mindfulness: The Compassionate Choice

- Heals the physiological changes in the brain from chronic stress, trauma, and pain
- The practice of coming into the present moment as the observer, with a compassionate intention

“If your compassion does not include yourself, it is incomplete”

-Jack Kornfield, American Buddhist monk and educator

Cognitive-Behavioral Therapy vs. Mindfulness

- Most training programs continue to teach Cognitive Behavioral Therapy as the leading behavioral treatment for chronic pain patients.
- Unfortunately, high relapse rates
- WHY?... because hardware matters!
- Must heal the brain’s hardware, then update the software

- Current Best Practice Treatment = Mindfulness-Based Cognitive Therapy + Trauma Treatment (i.e. EFT and EMDR)
**Brain Software**

- Increase Knowledge and understanding of physiological processes and status.
- Increase positive thinking: hopeful thoughts
  - “Mind the (belief) gap”
  - Use Socratic logic
  - Positivity ratio* ≈ 3:1
- Mind helps guide neural connections

- 1st: Need to shift ANS to parasympathetic state
  *Psychologist Barbara Fredrickson’s research*

**ANS Self-Regulation Techniques**

- Emotional Freedom Techniques (EFT)
  - Bi-lateral stimulation on stress-reduction points on the body moves ANS from sympathetic into parasympathetic mode; also “neutralizes” trauma triggers
- Breath Work
  - Deep, slow inhalations and exhalations calm ANS and release tension in the pelvic floor
- Mental Reframing
  - Active, present tense, positive, informed statements
  - “I am healing.”
  - “Improvement is possible”

**Emotional Freedom Techniques**

- EFT Points
  - Use on the points on body under eye and above ear.
Brain Hardware Restoration = MBSR

- Mindfulness = Physical Therapy for the Brain’s Hardware
- Mindfulness is about perception, and perception is everything when it comes to a brain in pain.
- Mindfulness = Attention to the present moment as a non-judgmental observer
  - Active MBSR
  - Meditative MBSR

Active Mindfulness

- Breath work/Singing
- Progressive Muscle Relaxation
- Mindful Eating & Drinking*
- “I spy” with all senses
- Yoga
- Swimming
- Reading
- Art
- Mindful Exercise** i.e. dancing
- Playing an instrument
- Playing ping pong
- “Red light/ Green light” game
- “Simon Says” game
- Brushing teeth (or any safe activity) with non-dominant hand
- Walking (super) slowly

* If your lips are dry, chances are you are already about a liter behind.
** It seems that in order to get the anti-inflammatory and neuro-regenerative benefits of exercise, you have to actually pay attention to what you are doing.
Favorite Facts:

- Mindful exercise (dancing & yoga) elevates levels of BDNF* and increases brain volume
- Relapse of anxiety and depression symptoms decreases from 65% to 10 - 30%
- 85% PTSD remained in remission after 30 minutes of EFT
- MBSR changes brain function, immune function, and ANS regulation

*Brain-derived neurotrophic factor (BDNF) is the molecule that jump-starts the neuroplasticity, or the formation of new neurons in the brain and lowers inflammation. (Reihman, 2018)

Meditative Mindfulness

- Body Scan & Guided Visualizations
  - "Guided meditations for mindful living" audio CD by Alex Milspaw
  - "Guided meditations for EMDR healing" audio CD by Alex Milspaw
- Apps for smartphones and tablets:
  - "Headspace" - MBSR
  - "Calm" - MBSR
  - "Recognize" - recognition exercises
  - "Lumosity" - concentration and memory exercises
  - Nick Ortner's new EFT Meridian Tapping app

MBSR Research mostly based on body scan and guided visualization exercises.

Mindfulness: The Ethical Choice

- Improves provider's presence with patients
- Improves provider's ability to retain information and see the "big picture"
- Improves provider's ability to retain information and remember all options available for treatment
- Heals and prevents provider burnout (more on this later)
“It is an absolute human certainty that no one can know his own beauty or perceive a sense of his own worth until it has been reflected back to him in the mirror of another loving, caring human being.” — John Joseph Powell, The Secret of Staying in Love

Research and Instructional Books
- “Explain Pain Supercharged” by Lorimer Moseley and David Butler
- “Painful Yarns” by Lorimer Moseley
- “Graded Motor Imagery” by Lorimer Moseley and Adrian Louw
- “The Divided Mind” and “The Mindbody Prescription” by John Sarno, MD
- “The Body Bears the Burden” by Robert Scaer
- “Training the Brain to Heal Painful Habits” training by PESI
- “The Mindful Way Workbook” by Segal et al
- “Fully Present” by Susan Smalley and Diana Winston
- “Mind in the Making” by Ellen Galinsky
- “28 Days to Ecstasy” by Copeland and Link

Helpful To-Do’s
- Turn off notifications on phone, tablet, computer
- Check messages on your schedule, not the world’s
- 60 seconds every hour — “I spy” with all senses and breathe
- Eye-gazing and harmonized breathing
- 20 minutes of meditate daily
- Eat at least 1 bite per meal mindfully
- EFT before MBIR and as needed
- Decrease caffeine
More Ideas on Preventing Burn-Out

- Emotional Freedom Techniques (EFT)
- Create an intention for the day
- Gratitude
- Each time your phone rings, take a full inhale and exhale before you pick up
- Identify one thing that you would love to incorporate into your week but are certain you could not. How is every thing in your power to make that aspiration a reality.
- Plan your days off NOW.
- Return your awareness to family and sensations
- Compassion
- What is your Plan B if it feels better than what is now...why aren’t you working towards it?
- BUILD YOUR “A” TEAM!

In Summary...

- “A Very Happy Brain” by Dr. Sood on youtube.com
- “Meditation 20” by Dr. Sood on youtube.com

Thank you!

www.4DCounseling.com
484-894-1246
dramilspaw@4dcounseling.com