Stress Hardiness vs Helplessness

Suzanne Ouellette Kobasa

3 C’s of Stress Hardiness
• Challenge
• Control
• Commitment

“Stressful events challenge me to change and grow.”

Martin E.P. Seligman

3 P’s of Pessimism/Helplessness
• Personal
• Pervasive
• Permanent

“It’s my own fault, I mess up everything I do, and it’s the story of my life.”
The ACE Study: Adverse Childhood Experiences

Bridges the Gap Between Childhood Trauma and Negative Consequences Later in Life

Vincent F. Felitti, MD and Robert F. Anda, MD

www.ACEstudy.org
What is an ACE?

- Recurrent physical abuse
- Recurrent emotional abuse
- Contact sexual abuse
- Addiction in household
- Household member incarcerated
- Depressed, mentally ill, suicidal member
- One or no parents
- Mother treated violently
- Physical or emotional neglect
“Turning Gold into Lead”*

- Male child with ACE score of 6 has 4600% increase in probability of IV drug abuse
- ACE score of 4 increases probability of COPD by 390%
- ACE score of 4 or more raises the probability of depression almost 500%
- ACE score or 4 or more raises probability of suicide by 1220%

*Felitti
Telomeres are shorter in children who have been abused.
Stress Makes it Harder for the Body to Renew Itself

The shortening of telomeres necessary for cell division and renewal is associated with an increase in cancer, depression, pulmonary fibrosis, dementia, osteoarthritis and osteoporosis.

-Elizabeth Blackburn at UCSF

BTW: Exercise protects telomeres!!!
Stress, Negative Emotions and Proinflammatory Cytokines

• IL-6 overproduction results from both physical and emotional stress.
• Depression and anxiety increase IL-6 production.
• Inflammation is a commonality in heart disease, diabetes, osteoporosis, aging, some cancers and many chronic illnesses.
Stress, Depression, and BDNF

• Chronic stress is a trigger for diverse psychiatric disorders- including depression- via dysregulation of the HPA axis.

• BDNF (Brain Derived Neurotrophic Factor) helps regulate the HPA axis.

• In rats exposed to mild chronic stress for 4 weeks, BDNF expression plays a critical role in resilience.*

BDNF is Decreased by

- Diets high in saturated fat
- Refined carbohydrates (sugar, flour, etc.)
- A sedentary lifestyle

The Standard American Diet (SAD) and plugged in lifestyle creates both depression and anxiety. And although we may network electronically, social support is critical for both immunity and neuronal health.
BDNF is increased by

- Mediterranean diet rich in nuts, vegetables, fish, colored fruits
- Curcumin (found in turmeric)
- Omega-3 fatty acids (DHA)
- Walnuts and avocados
- Low carb diet
- Coffee
- Fasting and calorie restriction
The Microbiome
The First Elephant in the Living Room

We are composite organisms made of about 10 trillion human cells and 100 trillion bacteria. The bacteria have “ecosystem” functions including:

1. Keeping the gut lining intact
2. Manufacturing neurotransmitters
3. Regulating weight
4. Regulating immune system
The human genome is fairly constant and changes very slowly over millions of years. On the other hand, the environment around us changes all the time. A science called epigenetics explains how our genes can adapt to changes in the environment even though the actual structure of the genome-the genes themselves-don’t change.

Diet is a powerful epigenetic modulator!!!
Unto 4 Generations
Resilience, Trauma, and Heredity
The PlantPlus Diet Solution: Personalized Nutrition for Life
What to Eat for Mental Health?

• Whole foods, not processed
• One pound of vegetables and fruits daily- not fruit juice! Especially greens- folate is a methyl donor
• Nuts, olive oil, coconut oil, good fats not industrial derived PUFAs
• Plus foods depending on your own physiology and preferences: dairy, fish, poultry, meat, grains (depends on carb tolerance), legumes
Resilience and Transformation
The Hero’s Journey
Cognitive Neuroscience

Feelings and thoughts work together so that you can integrate the brain. By creating new meanings for traumatic events you can calm down your worry circuits and build resilience circuits.
Three Traits of Resilience

“Resilience is a reflex, a way of facing and understanding the world, that is deeply etched into a person’s mind and soul. Resilient people and companies face reality with staunchness, make meaning of hardship instead of crying out in despair, and improvise solutions from thin air. Others do not.” - Diane Coutu

Resilience can be Learned!!!
The Brain that Changes
Aerial View of the Prefrontal Cortex
Medial View of Prefrontal Cortex

Brain Structures Involved in Dealing with Fear and Stress
Making a Left Shift
A kiss to the Prefrontal Cortex makes it all better
“The amygdala is the region that sends out signals—be afraid, be depressed, be on your toes for signs of danger—and when those signals are going full blast it’s very hard to be resilient... So the prefrontal cortex basically says to the amygdala, ‘Quiet down!’ And when it’s able to do so, people are able to be resilient... *The activation of the left prefrontal cortex in a resilient person can be 30 times that of someone who isn’t resilient.*”

- Sharon Begley
The Calmer Downer Circuit

GABA, gamma amino-butyric acid is an inhibitory neuropeptide made in the orbitomedial prefrontal cortex (the “upstairs brain”). When released it turns off the alarm raised by the amygdala and calms the “downstairs brain”-the subcortical areas- body, brainstem, and limbic areas.
How to Make the Shift

• Mindfulness
• Meditation including yoga and Qi Gong
• Mental training techniques (slogans, reframing, cognitive behavioral approaches, changing one’s story through creating a new meaning)
• Exercise
• Breathing (especially slow outbreath)
“I have come to believe that it is through the establishment of a unique doctor-friend-patient relationship that most of the healing occurs, whether helped along by surgery, acupuncture, or regular doses of approved medicines.”

-Joseph Martin, MD
Former Dean of HMS
“There is a pervasive form of contemporary violence—activism and overwork. The rush and pressure of modern life are a form, perhaps the most common form, of its innate violence.

To allow oneself to be carried away by a multitude of conflicting concerns, to surrender to too many demands, to commit oneself to too many projects, to want to help everyone in everything, is to succumb to violence.

The frenzy of our activism neutralizes our work for peace. It destroys our own inner capacity for peace. It destroys the fruitfulness of our own work because it kills the root of inner wisdom which makes work fruitful.”

-Thomas Merton
Change Your Brain, Change Your Life with a Gratitude Practice
And when all else fails...
Consult your local pet therapist
Lovingkindness Blessings

May you be at peace
May your heart remain open
May you know the beauty of your own true nature
May you be healed
May you be a source of healing to the world