

# Scientific Basis for Complementary Approaches to Stress Management

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**MECC Workshop on Stress and Burnout**

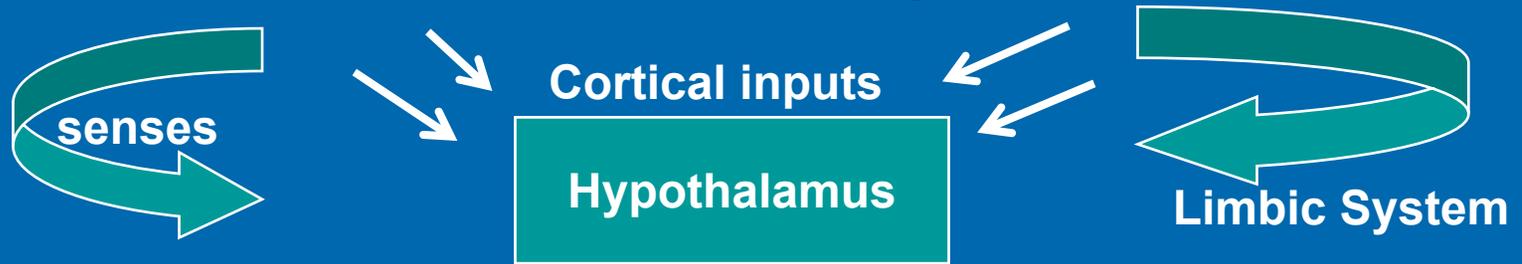
Larnaca, Cyprus

June 22, 2007

# Experiential Exercise



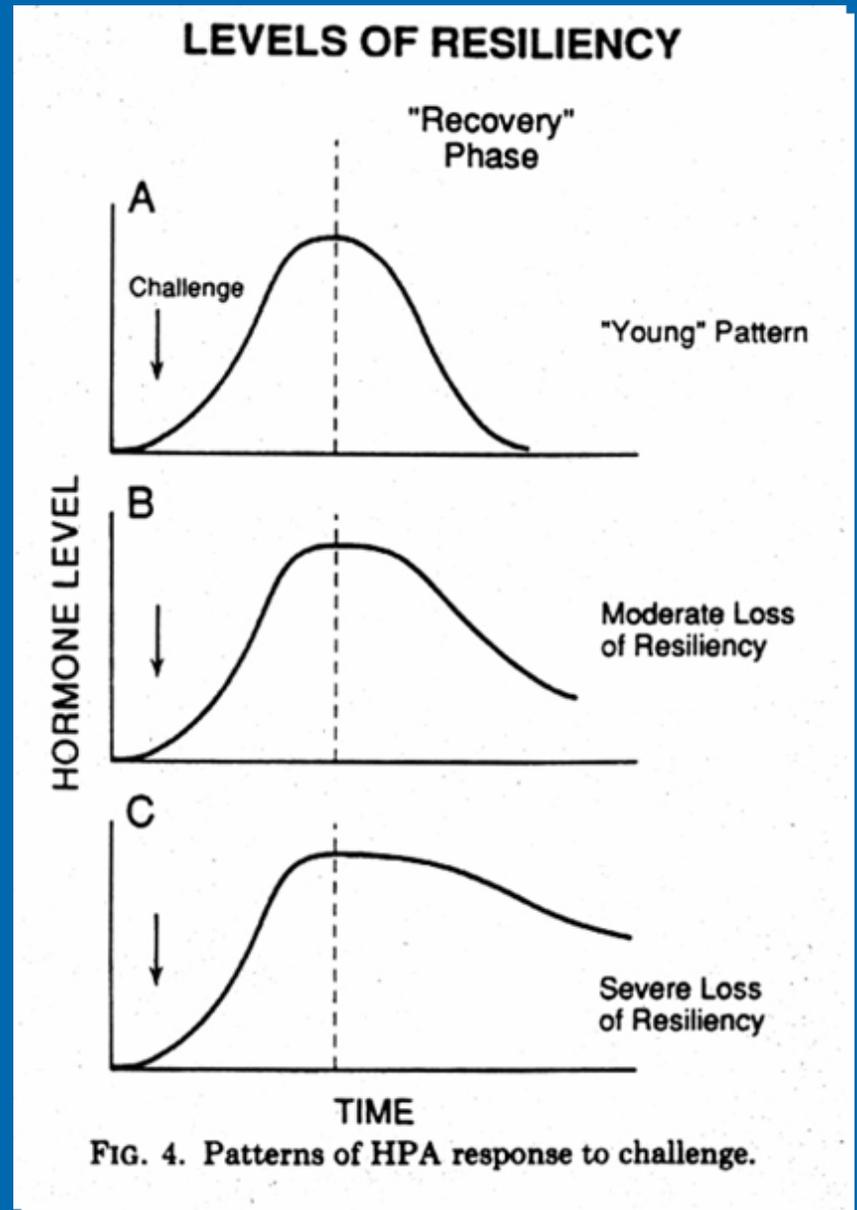
# The Stress Response



Are there ways to quiet the hypothalamus?

# Importance of the “Return to Baseline”

## Implications for Coping with Novel Stressors



# Mind-Body Medicine: Therapies

- Meditation
- Imagery
- Biofeedback
- Autogenic Training (self-hypnosis)
- Breathing Techniques
- Exercise
- Yoga, Tai Chi
- Group Support

# Benefits of Meditation

## ➤ Physiological Benefits

- Decrease in hypertension
- Decrease in heart rate
- Decreased levels of cortisol
- Reduced sympathetic arousal
- Strengthened immune system
- Reduced levels of pain

# Benefits of Meditation

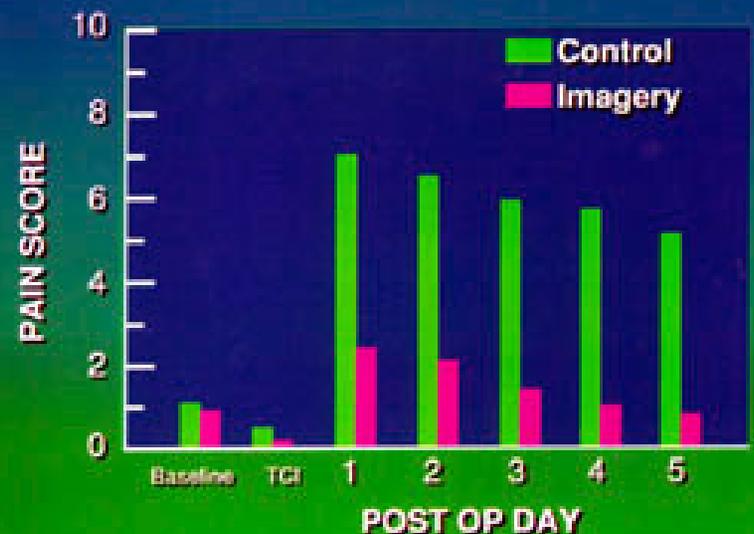
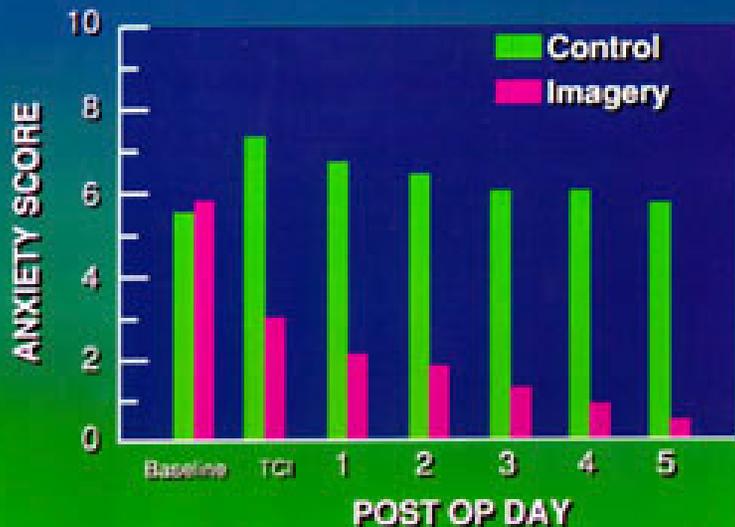
## ➤ Psychological Benefits

- Reduced stress level
- Decreased anxiety
- Decreased depression
- Improved confidence and concentration
- Increased peace of mind, optimism and self-worth

# Benefits of Imagery

- Physiological relaxation
- Stress reduction
- Pain reduction and relief
- Modulation of mood
- Stimulation of immune response
- Empowering for patients
- Discovering meaning/insight into illness
- Enhancing self-awareness

# Benefits of Imagery



Tusek, DL, Cwynar R, and Cosgrove DM. Effect of guided imagery on length of stay, pain and anxiety in cardiac surgery patients. *J Cardiovasc Manag.* 10:22-8, 1999.

# Benefits of Biofeedback

- Increased awareness and confidence in relaxation skills
- Control over “involuntary” functions
- Examples:
  - recurrent migraine headache
  - treatment of Raynaud’s disease
  - urinary incontinence
  - arthritis

# Efficacy of Mind-Body Therapies

## ➤ Considerable Evidence

- Coronary Artery Disease (cardiac rehabilitation)
- Headaches
- Insomnia
- Incontinence
- Chronic low back pain
- Disease and treatment-related symptoms of cancer
- Improving post-surgical outcomes

*Astin et al Mind-Body Medicine: State of the Science, Implications for Practice. J Am Board Fam Pract 16:131-147, 2003*

# The New York Times

Saturday, June 16, 2007

In the Classroom, a New Focus on Quieting the Mind





# What is Mind-Body Medicine?

- Mind-Body Medicine asserts that
  - There is a connection and interaction between the mind and the body. Each has a powerful effect on the other.
  - The physical, emotional, mental, social and spiritual aspects of our lives directly impact on our health and well-being.

# Meditation

- Intentional self-regulation of attention conducted without judgment and focused on observation of the present moment
  - When we are able to focus on just what is happening in the present moment, our minds cannot be anxious, worried or distressed about other issues.

# Types of Meditation

## ➤ Mindfulness/Awareness Meditation

- Bringing your full attention to your breathing, focusing on each inhalation and exhalation
- When thoughts, feelings, sounds, sensations flow through your mind, notice them, accept them and gently bring your attention back to your breath

# Types of Meditation

## ➤ Concentrative meditation

- Focus your attention on a word or phrase and repeat it in your mind with each out-breath
- When distracting thoughts occur simply disregard them and redirect your attention to repeating your word or phrase

# Imagery

- Generation (either by oneself or guided) of different mental images, using visualization and imagination to evoke a state of relaxation or for another outcome to improve well-being
- Uses the communication links between mind and body
- Most effective when all senses are incorporated (vision, hearing, smell, taste and touch)

# Biofeedback

- Using information from the body obtained from a biofeedback device (machine, thermistor, or biodot) to monitor and gain control over autonomic body functions
- Biofeedback devices amplify physiological processes (brain waves, muscle tension, perspiration, or skin temperature)
- Participants are usually guided through relaxation and imagery exercises and instructed to alter a specific physiological process using visual, auditory or other biofeedback information.