

Mindfulness-Based Biofeedback: Clinical Application and Practice

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Overview

- Introduction
 - Experience with complex medical problems
 - Unique considerations
- Biofeedback
- Mindfulness Meditation
- Mindfulness-Based Biofeedback (MBB)
 - Case study
 - Protocol
- Practice Moments



Unique Considerations in Treating Illness

- Are not single traumatic events.
- They represent a series of new, ongoing and continuing demands such as:
 - The disease's symptoms
 - Course and prognosis
 - Treatment and Side effects
 - As well as Social, Emotional, physical and financial consequences



Role of Biofeedback

- Patient trained to engage small, appropriate changes in performance which are immediately noted and rewarded
- Eventually larger changes in performance can be accomplished leading to improvement
- Goal is to train the patient to become more aware and able to make adjustments in psychophysiology without the use of a biofeedback unit



Role of Mindfulness

- Awareness
- Non-Judgement
- Acceptance



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Biofeedback

- Definition- The use of monitoring instruments to provide physiological feedback re:
 1. Responses not ordinarily under voluntary control and
 2. Responses that ordinarily are easily regulated but for which regulation has broken down



Biofeedback

- Introduced in the clinical setting 1960s
- Abundant scientific research supporting its efficacy in numerous health conditions:
 1. Headaches:
 2. Neck, shoulder, and back pain and overall myofascial pain
 3. Repetitive Strain Injury, Carpal Tunnel
 4. High blood pressure
 5. Temporal Mandibular Joint Disorder (TMJ)
 6. Raynaud's Syndrome
 7. Diabetes
 8. Post Traumatic Stress Disorder
 9. Sleep Disorders
 10. Rheumatoid Arthritis



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Biofeedback: How it works

- Nervous System
 - Sympathetic Nervous System
 - Parasympathetic nervous system

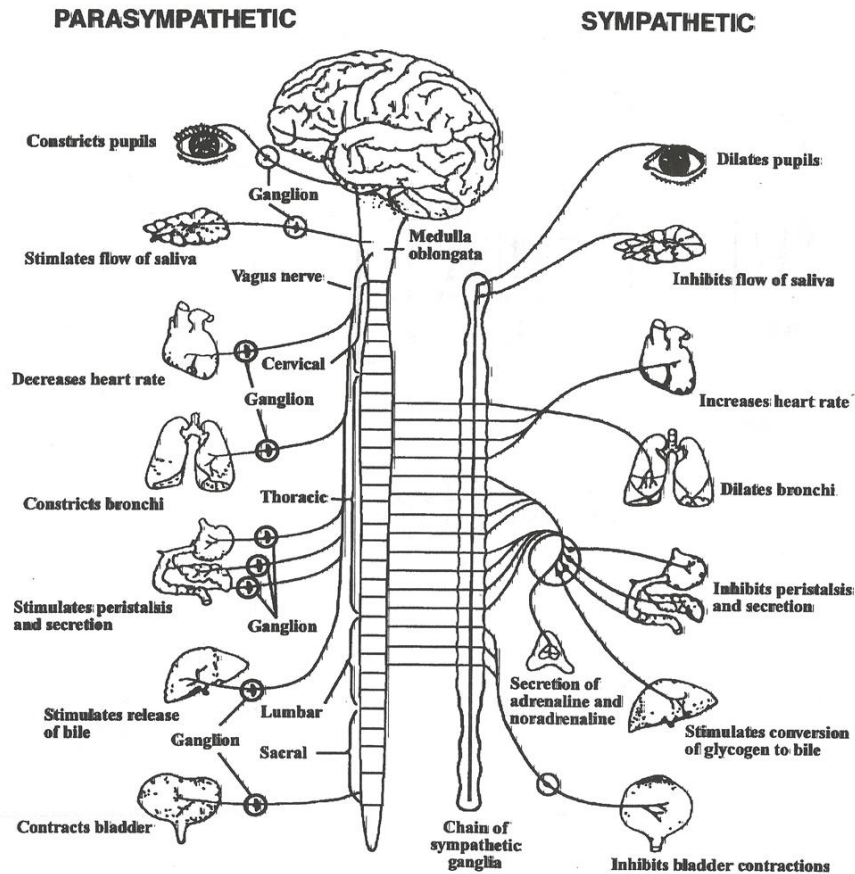


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Physiological

Autonomic Nervous System



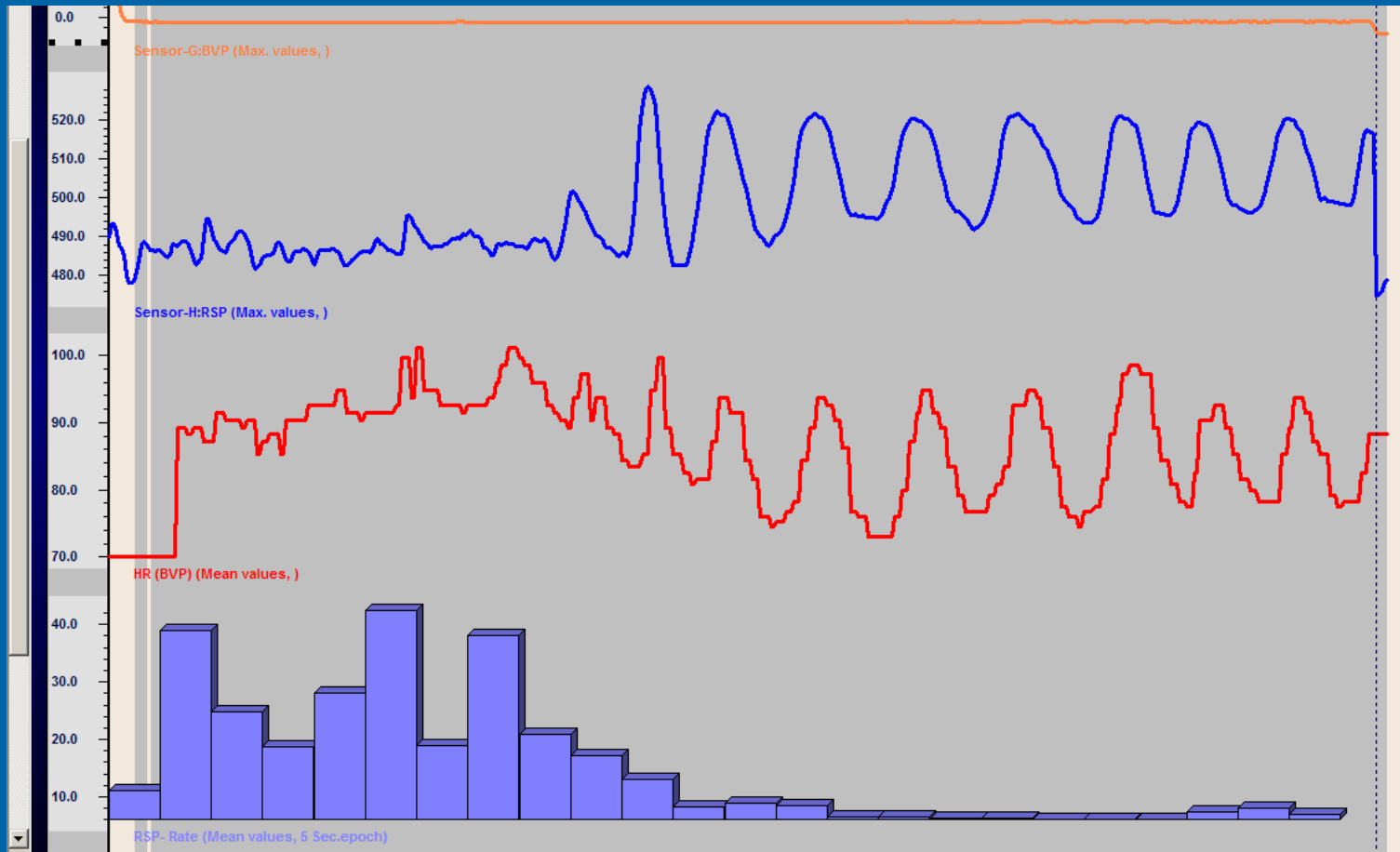
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Biofeedback Modalities

- Respiration
- Thermal
- Electro dermal activity
- Heart Rate (RSA training)
- Electroencephalography (EEG)
- Electromyography (EMG)



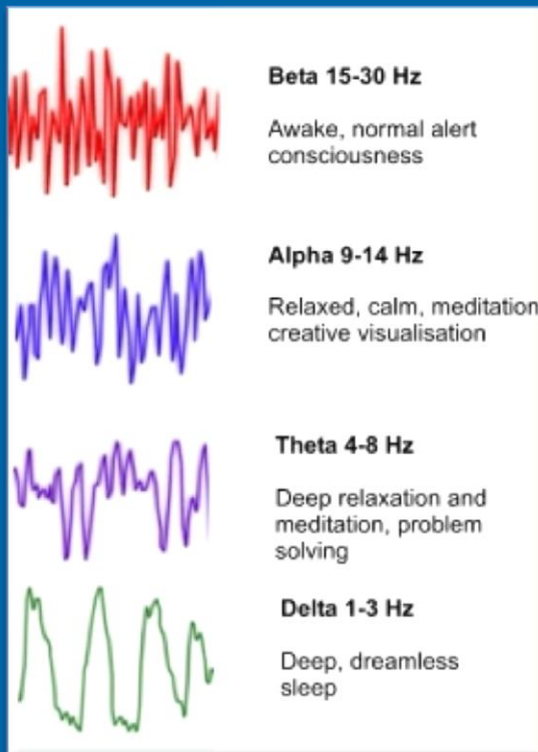
Your Breathing



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Benefits

Meditation Induces Alpha Brain wave Activity



Alert & goal oriented thinking such as active concentration

Awake but relaxed and restful posterior parts of brain

Relaxed attention monitoring experience frontal and midbrain

Slow wave sleep



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Goals

- Activate the parasympathetic nervous system
- Identify when we are not relaxed so we can learn what true relaxation feels like



Biofeedback Relaxation Techniques

- Diaphragmatic Breathing
- Progressive Muscle Relaxation
- Guided imagery
- Autogenic training



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Meditation Is Not What You Think



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Mindfulness-Based Meditation

Cultivating a different relationship
with one's experience



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Mindfulness-Based Meditation

- Introduced to western practice 70's
 1. Herbert Benson- (1971) Relaxation Response
 2. Jon Kabat-Zinn (1979) MBSR

- Growing scientific research re:
 1. Reduction in negative mood states
 2. Increased immune response
 3. Activation of left prefrontal cortex



Mindfulness-Based Meditation

- Definition- Paying attention in a particular way on purpose in the present moment, nonjudgmentally

-Jon Kabat-Zinn

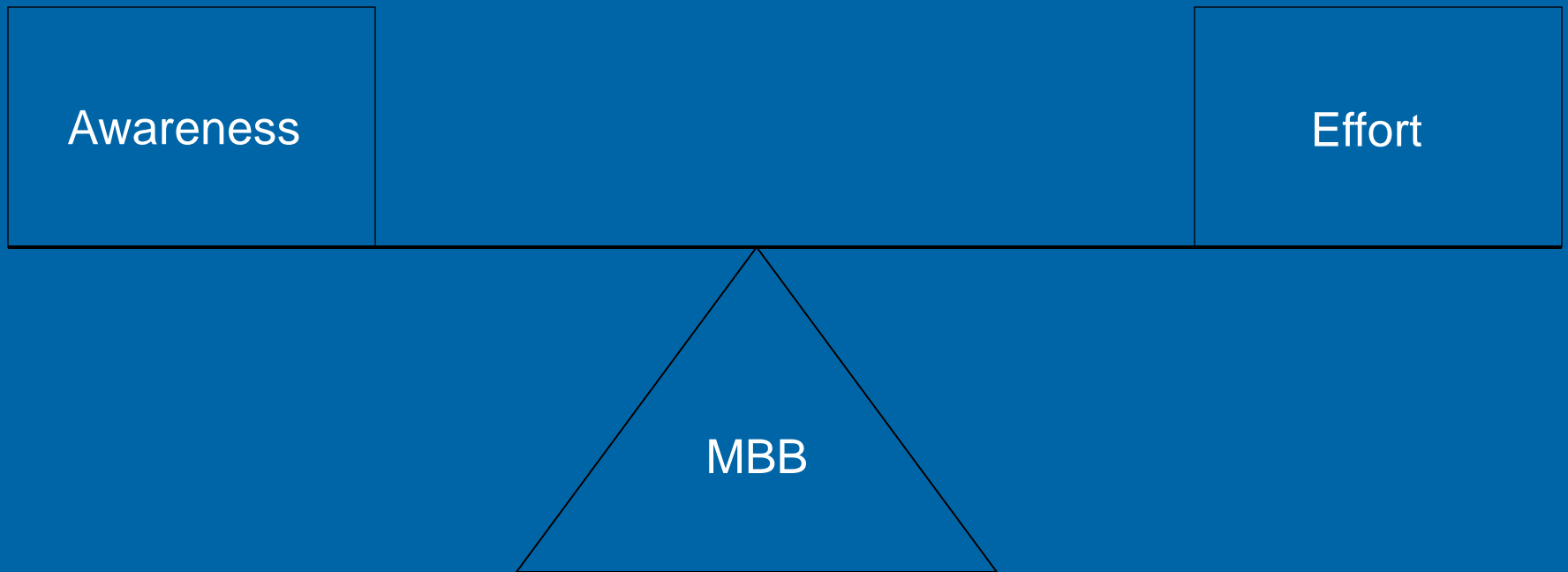
1. Be Aware
2. Do not control- but allow



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Balanced Approach



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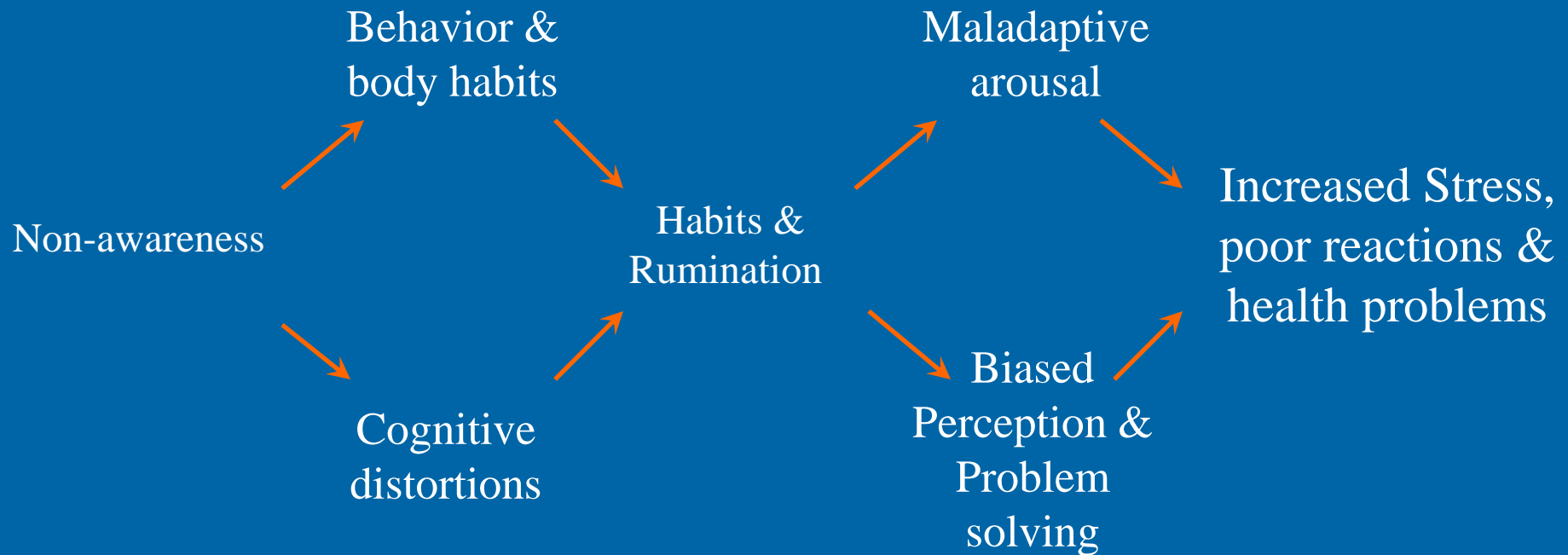
Mindfulness Based Biofeedback: Pain management Psychotherapy



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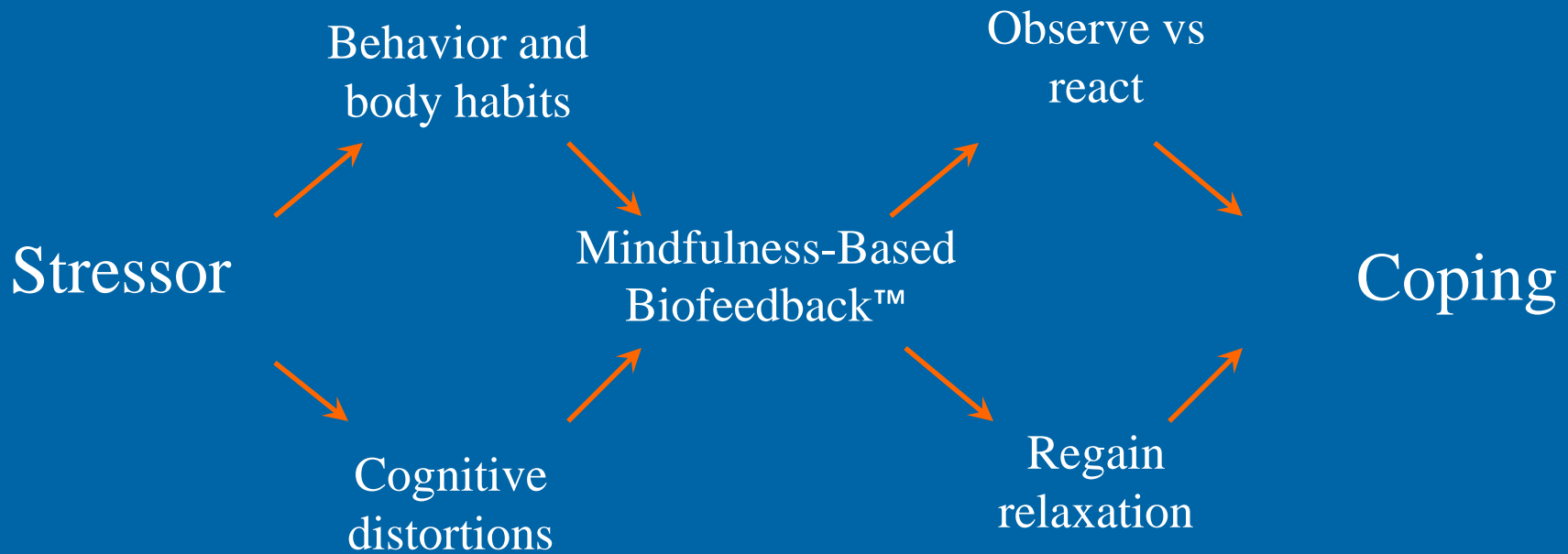
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Vulnerability to Stress and Health Problems



Mindfulness-Based Biofeedback™:

Prevention of Stress & Health Relapse



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MBB Treatment Format

- Session 1 Assessment
 - Identification of Target Goals
 - Establishing expectations
- Session 2-3 Diaphragmatic breathing training: Respiration and Heart rate
- Sessions 4-6 Biofeedback training according to tx goals
 - Relaxation Modalities
 - Muscular evaluation
 - Mindfulness modalities
- Sessions 7-8 Expansion of MBB skills



Relaxation Response

- Not the same as “relaxing”
- Immediate effect
- Long term effect
- Physical & emotional



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Contraindications

- Non-compliance
 - History or current behavior
 - External locus of control
- Psychiatric Conditions
 - Severe depression
 - Psychopathic personalities
 - Caution with severe PTSD



* Possibility of decompensation with relaxation
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Mindfulness-Based Biofeedback Treatment

Mindfulness



Insight
Reduced Need
for Control

Biofeedback

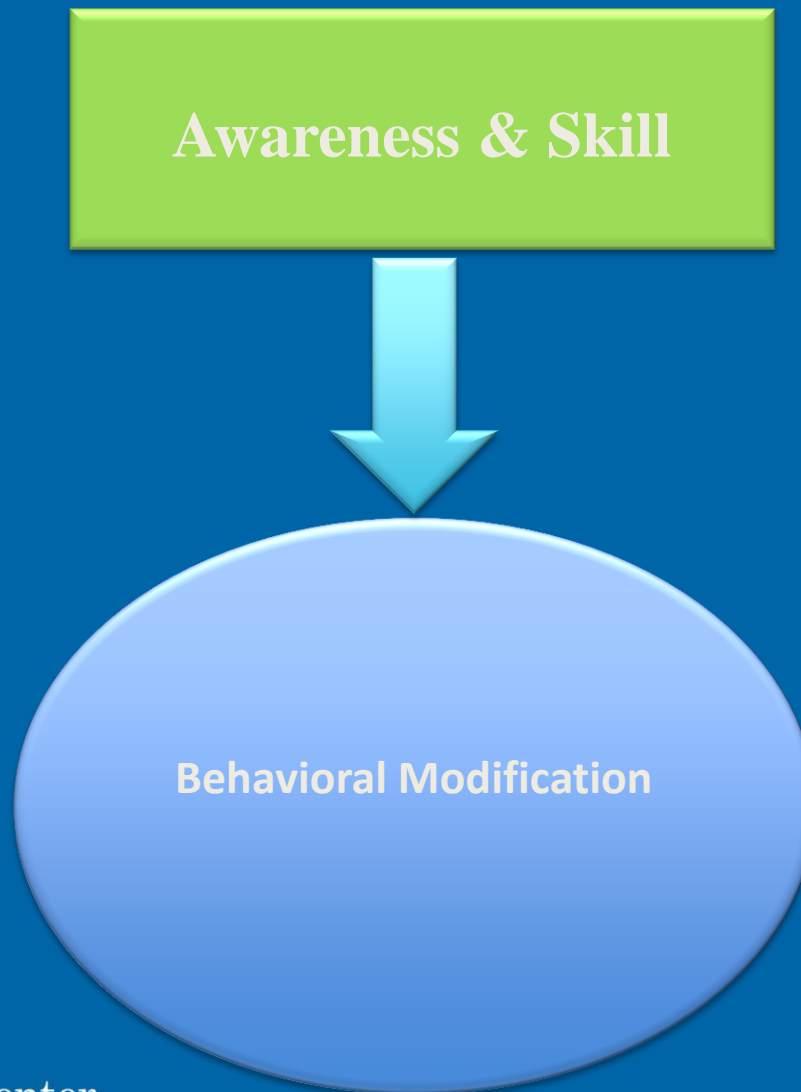


Relaxation
Greater Control



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Mindfulness Based Biofeedback Treatment



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Overall Treatment Goals

- Improved Coping Skills
- Improved Functional ability
- Return to work
- Improved Quality of Life
- Increased Self Efficacy/Internal Locus of Control



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One's Practice

To know how other people behave takes intelligence, but to know myself takes wisdom. To manage other people's lives takes strength, but to manage my own life takes true power.

--John Heider: The Tao Of Leadership



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Simple Starting Points

- Quieting reflect
- Hourly 3- second breath
- Mindfulness in everyday tasks
- The yoga of meditation



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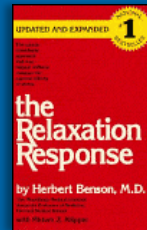
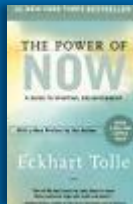
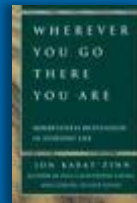
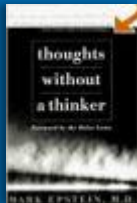
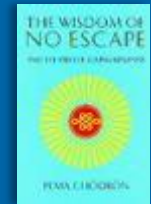
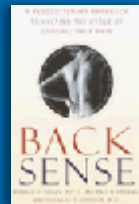
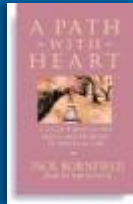
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The Quieting Reflex

- A 6 second technique that can be used “anywhere”
 1. Identify the stressor
 2. Smile to release muscle tension
 3. Repeat “I can keep a calm body & a relaxed mind”
 4. Take a quiet, easy breath
 5. Visualize heaviness and warmth flowing throughout your body



Recommended Reading



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