

Role of the Psychologist in Rehabilitation:

Appreciating and Countering Multiple Contributors to Impairment & Disability

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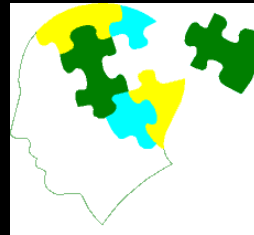
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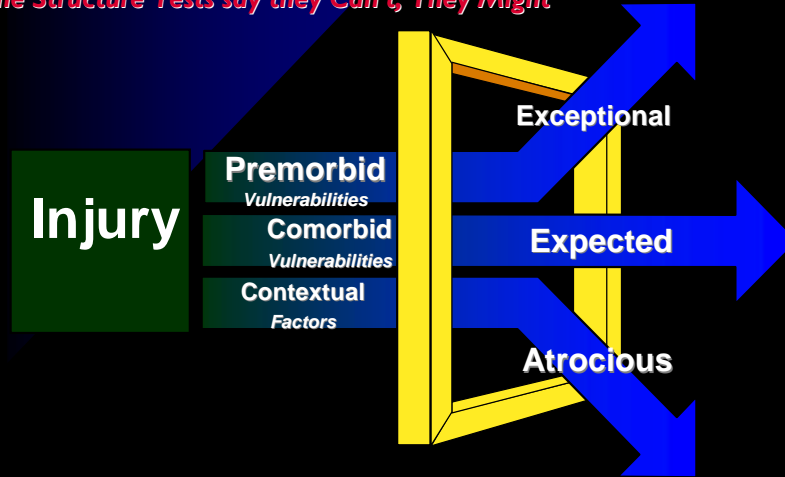
VillaMartelli Disability Resources Website

<http://villamartelli.com>



Recovery & Adjustment Following Insult or Illness

- If the Structure Tests say they Can, They Might Not
- If the Structure Tests say they Can't, They Might



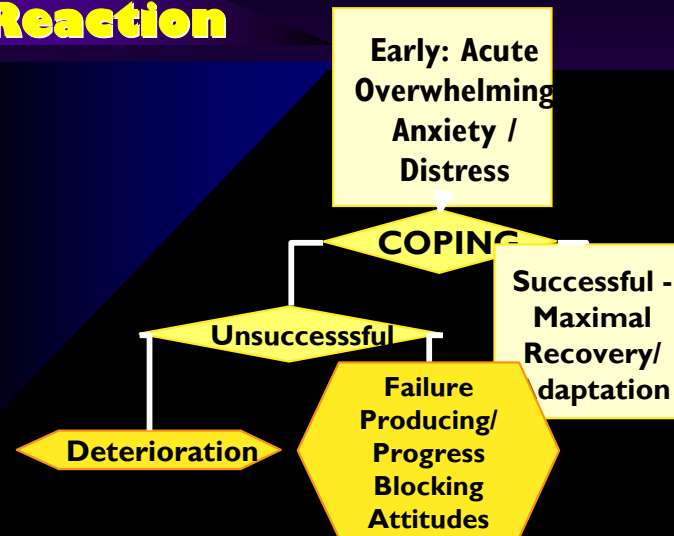
REHABILITATION



The Systematic Process of:

- ☞ Removing Obstacles to Independence
- ☞ Accessing Opportunities for Stepwise Achievements (*Of Desired Goals*) in the areas of Love, Work and Play!
- ☞ Changing Destiny!

Catastrophic Reaction



Catastrophic Reaction: Goldstein's term for the extreme depression he observed after left-hemisphere lesions.

- *"We have characterized the conditions of brain-injured patients, when faced with solvable and unsolvable tasks, as states of ordered behavior and catastrophic reaction. The [latter] show all the characteristics of anxiety."*
- Organism in struggle to cope with the challenges of environment and own body.
- Whole; Cannot be divided into "organs" or "mind" & "body"
- "Disease" = changed state with the environment.
- Healing comes not through "repair" but through adaptation to conditions causing the new state

Common Personality

Disturbances Following TBI

(Prigatano, 1987)

- ➔ **Anxiety & the Catastrophic Reaction**
 - ➔ cf Chronic Compensatory Effort Syndrome (Hopewell, 2001)
- ➔ **Denial of Deficits** (Anasognosia / Anosodiaphoria)
- ➔ **Paranoia and Psychomotor Agitation** (cf Bateson)
- ➔ **Depression, Social Withdrawal & Amotivational States** (cf Seligman; Taub)

Other Neurobehavioral Influenced Psychoemotional Patterns & Factors

- ➔ **Behavior Disorders**
 - ➔ Irritability / Reduced Frustration Tolerance, Impulsivity, Reduced Insight, Social Inappropriateness, Reduced Motivation, Increased Emotionality
- ➔ **Executive Disorders**
 - ➔ Initiation, Planning, Problem Solving, Self Regulation
- ➔ **Psychosocial Disorders**
- ➔ **Substance Abuse**
- ➔ **Physical Dysfunction**
- ➔ **Cognitive Dysfunction**
- ➔ **Psychoemotional Dysfunction**
- ➔ **Psychosocial Changes / Disruption**
- ➔ **Self / Identity Changes / Disruption**

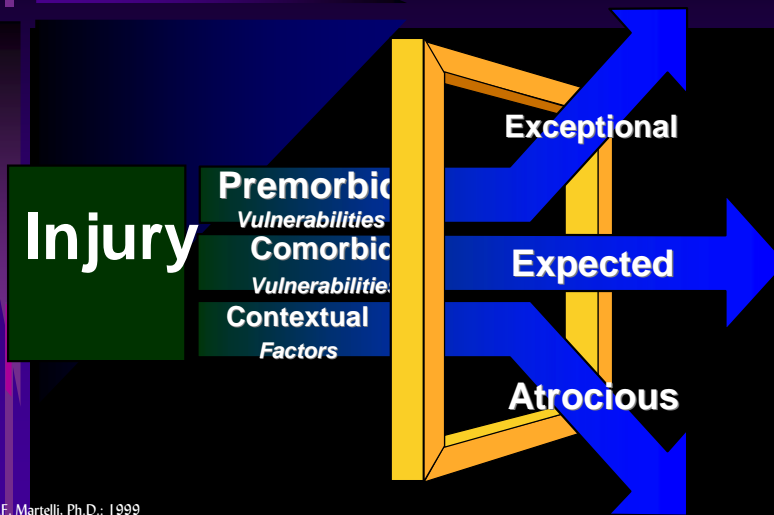
Evidence for Rehabilitation Suppression by Catastrophic Reaction: **CONSTRAINT INDUCED MVMT TX**

- **Converging Lines of Evidence: Nonuse of a Single Deafferented Limb is a Learned Conditioned Suppression of Movement**
 - Neurologic injury --> Depressed motor or perceptual function
 - Lasts 2-6 months; progressive regaining of movement follows
 - Initial attempts to use limb fail
 - Begins to function adequately with 3 limbs, reinforcing 3 limb use
 - Continued attempts to use deafferented limb produces failure, pain, incoordination, falling --> punishment and suppression
 - Nonuse response tendency persists, preventing monkeys from learning that after several months, the limb is Potentially Usable
 - Conclusion: Animals never learned they could eventually use the limb (Learned Nonuse)

Evidence for Rehabilitation Suppression by Catastrophic Reaction: **Constraint-Induced Movement Therapy (CIMT)**

- **To date, CIMT (Taub, 1966-present) used effectively for:**
 - Upper paralytic/ paretic limb of Chronic, Subacute CVA, TBI, LE CVA, Focal hand dystonia, Phantom limb pain
- **Use Dependent Cortical Reorganization**
 - Numerous efficacy studies, 5+ TMS, EEG, MEG studies with humans, 2+ studies of monkeys indicate: Cortical reorganization associated with TX
- **Several Converging Lines of Evidence:**
 - Nonuse of a Single Deafferented Limb is a Learned Conditioned Suppression of Movement...efforts to use limb during initial post trauma period are unsuccessful (due to diaschisis, etc.), painful, anxiety and failure inducing and result in Learned Nonuse (cf. Learned Helplessness, Catastrophic Reaction) persisting when cerebral reorganization possible.
- **Mechanism of Action**
 - (1) Changing learning contingencies reinforces Use Learning, inhibits "Nonuse Learning Phenomenon" (cf. Henri Meige (1904): "functional motor amnesia")
 - (2) Sustained, repeated practice of functional arm movements induces expansion of contralateral cortical area controlling movement, and recruitment of new ipsilateral areas.

Recovery After Injury ...and Adaptation to Impairment



M.F. Martelli, Ph.D.: 1999

Empirical Predictors of Poor Adjustment Following Injury

- Previous Treatment Failures (esp. if surgical)
- Length/Duration of Complaints
- Vagueness or Inconsistency of Complaints
- Presence of Serious Psychopathology, and, to a lesser degree, a Personality Disorder
- Repressive and Somatization Defenses, including strong Hypochondriacal (e.g, MMPI scale 1) and Hysterical Traits (e.g., MMPI Scale 3)
- Dependency Traits
- Depression
- Emotional Immaturity/Inadequacy & Poor Coping Skills

Empirical Predictors of Poor Adjustment Following Injury

- Greater reinforcement for "Illness" vs "Wellness" behavior
- Absence of Significant Supportive Other(s)
- Anger or Resentment or Perceived Mistreatment
- Fear of Failure Or Rejection (e.g. damaged goods; fear of being fired after injury)
- Loss of Self-confidence and Self-efficacy associated with Residual Impairments
- External (health, pain) Locus of Control
- Fear of Pain (*Kinesophobia, Cogniphobia*) Re-injury / Exacerbation of Injury

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Other Specific Impediments (cont)

- Discrepancies between Personality / Coping Style Behaviors and Injury Consequences
- Insufficient Residual Coping Resources / Skills
- Disuse Atrophy
- Fear of Losing Disability Status, Benefits, Safety Net
- Perceptions of High Compensability for injury
- Preinjury Job (task, work environment) Dissatisfaction
- Collateral Injuries (especially if "silent")
- Inadequate and/or or Inaccurate Medical Information
- Mis- or Late diagnosis and Mis- or Late Treatment
- Dichotomous (organic vs. psychologic) Conceptualizations of injury and symptoms

Kinesiophobia*

- Defined as the unreasonable or irrational fear of pain and painful reinjury upon physical movement.
- Phobic responses to pain (or pain phobias), as unhealthy pain maintaining habits, are a major contributor to pain related disability, or Avoidance Conditioned Pain Related Disability (ACPRD).
- After R/O malingering, Combination TX:
 - Reeducation, countering maladaptive phobic responses and promoting adaptive attitudes and treatment participation/ cooperation

**cf Cogniphobia*

Fishbain (2000) Metaanalysis on Waddell signs:

- Not correlated with psychological distress or secondary gain
- Do not discriminate organic from nonorganic problems
- May represent an organic phenomenon
- Associated with greater pain levels and poorer treatment outcomes

Other False Positives Indicators:

- Pain Relief by DISTRACTION, FBS, etc.!!!

**Mensana Clinic Test Discrimination Success:
"Organic" versus "Functional" Back Pain**
($\chi^2 = 133; p < 0.0001$)

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3	146/155 = 94%	43/57 = 75%	6/39 = 15%
2			
1	9/155 = 6%	14/57 = 25%	33/39 = 85%
0			

0 Objective 17 Mixed 21 Exaggerating 30

Test Scores - Categories

**Extra-medical Factors and
Rehabilitation Outcome**

- Longitudinal study of PI MVA litigants (*Evans, 1994*)
- Strongest predictors of successful outcome were
 - Inclusion of psychological services in the Tx plan
 - Receipt of immediate intervention, with return to work (RTW) treatment focus
 - RTW at reduced status or modified duties
- ≥ 6 months: uncooperativeness and delayed bill paying of medical insurance carriers (vs. medical symptoms) was most frequently reported stressor.
- Insurance carrier bill payment very strongly predicted RTW
 - Prompt (≤ 30 days): 97% had returned to work.
 - Delayed (> 90 days): 4% had returned to work.

Extra-medical Factors (cont)

- Incidence & claim closure speed of Whiplash injury after change to no-fault in Saskatchewan, CA (Cassidy, et al, 2000)
- Claims dropped by 28%
- Time to claim settlement was cut by 54%.
- Intensity of neck pain, level of physical functioning, depressive symptoms, having attorney increased claim closure for both
- **Their Conclusion:** Compensation for pain and suffering increases frequency, duration of claims and delays recovery
- **Note:** No-fault system eliminated most court actions, income replacement and medical benefits were increased and medical care became universal, without barriers
 - Pre-injury anxiety was associated with delayed claim closure only under the tort system
- **More Valid Conclusion:** removal of financial disincentives and medicolegal associated treatment barriers and anxiety provocation has a facilitative effect on post-injury recovery.

PSYCHOLOGIC ASSESSMENT

- **Domain Specific Pain Coping Measures**
 - **Multidimensional Pain Inventory (MPI)**
 - Section 1 assesses pain severity, interference, support, pain severity, life control and affective distress.
 - Section 2 assesses significant others' responses with punishing, solicitous, and distracting responses.
 - Section 3 assesses activity levels with household chores, outdoor work, activities away from home, social activities and general activities

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PSYCHOLOGIC ASSESSMENT

• Domain Specific Pain Coping Measures

▪ Cogniphobia Scale (*Sample Items*)

- I'm afraid that I might make the cause of my head pain worse if I concentrate too much
- My head pain is telling me that I have something dangerously wrong
- My accident/injury has put my head & brain at risk for the rest of my life
- Headaches always mean I have an injury or have done something to make it worse
- I'm afraid that I might make my medical condition worse by concentrating too much or being too mentally active
- Simply being careful not to concentrate too hard or too long is the safest thing I can do to prevent my pain from worsening
- Pain lets me know when to stop concentrating so that I don't injure myself
- It's really not safe for a person with a condition like mine to engage in too much thinking and concentrating
- No one should ever concentrate on difficult mental tasks when s/he is in pain

PSYCHOLOGIC ASSESSMENT

• Psychoemotional Measures

▪ Zung Depression Inventory

- Measures Cognitive, Affective, Psychomotor and Neurovegetative Symptoms of Depression

▪ MMPI (*Sample Derived Information*):

- Pattern 1: Willingness to Emit Pain Behaviors
- Pattern 2: Distress/Discomfort About Illness ("How comfortably sick?")
- Pattern 3: Poor General Coping Skills (Are other problems making pain behaviors reinforcing?)
- Pattern 4: Depression Complicating Pain Symptoms (mostly in the elderly)
- Pattern 5: Tension (and sympathetic arousal) contributing to Pain
- Pattern 6: Predicting Treatment Outcome

ASSESSMENT OF PSYCHOLOGICAL MEDIATORS OF PAIN: A STRESS & COPING MODEL

- **INDIVIDUAL PATIENT VARIABLES**
 - **Comorbid Coping Vulnerabilities**
 - PTSD
 - Reactive Depression, Anxiety, etc.
 - Associated Psychosocial Stresses
 - **Premorbid Coping Vulnerabilities**

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FUNCTIONAL MEDICAL DISORDERS

- **Practitioners in the "trenches," often see patients with:**
 - Unclear medical presentations
 - Recalcitrance to treatment
 - Significant psychological disturbances
 - Uncertain intertwining of psychological and medical
- **Typically diagnosed "functional"**
- **Often labeled "chronic" & beyond help**
- **Better Understanding Needed for More Effective Rehabilitation**
 - Factitious
 - Somatoform
 - Psych Factors Affecting A GenMed Condition
 - Functional Amnesia
 - Psychogenic Seizures, etc.

Vulnerable Personality Styles

Style	Premorbid traits	Post morbid reactions
Overachiever	Sense of self derived from driven accomplishments, which is frequently accompanied by obsessive compulsive traits	Catastrophic reaction if drop in performance is perceived
Dependent	Excessive need to be taken care of, frequently leading to submissive behaviors and a fear of separation	Paralyzed by symptoms if critical erosion of independence occurs
Borderline personality traits	Pattern of instability in interpersonal relationships and self-image with fear of rejection or abandonment	Exacerbation of personality disorganization, including despair, panic, impulsivity, instability, and self-destructive acts
General Insecurity	Weak sense of self, which can include shame, guilt, and dependency needs	Magnification of symptoms
Grandiosity	Overestimation of abilities and inflating accomplishments; can include need for admiration and lack of empathy	Minimization or denial of symptoms. If failure results, crash of self-esteem can result in catastrophic reaction

from Ruff, RM, Mueller, J and Jurica, P. (1996). Estimation of Premorbid Functioning after traumatic brain injury. *NeuroRehabilitation*, 7, 39-53

Vulnerable Personality Styles (Cont.)

Style	Premorbid traits	Post morbid reactions
Antisocial traits	Tendency to be manipulative or deceitful, temperamental, impulsive and irresponsible; lacks sensitivity to others	Possible exaggeration or malingering, increased risk taking, irritability, takes little responsibility for recovery
Hyperactivity	Restless, unfocused and sometimes disorganized	Attentional difficulties and impulsivity may be compounded; possible oppositional behavior
Depressed	Mood fluctuations dominated by negative affect	Increase of depressive symptoms, dependency
Histrionic style	Emotionality and attention seeking behavior	Dramatic flavor to symptom presentation; blaming behavior
Somatically focused	Preoccupation with physical well being, reluctance to accept psychological conflicts.	Endorsement of multiple premorbid physical symptoms intermixed with new or changing post morbid residua
Post traumatic stress disorder	Prior stressors produced an emotional reaction of fear and helplessness	Decreased coping ability, cumulative effect of traumas with exaggerated reaction to current crisis

from Ruff, RM, Mueller, J and Jurica, P. (1996). Estimation of Premorbid Functioning after traumatic brain injury. *NeuroRehabilitation*, 7, 39-53

The	Vulnerability	To Disability	Rating	Scale	General Version
Increased Complaint Duration	Complaint Inconsistency / Vagueness	Previous Treatment Failure	Collateral Injury / Impairment	Pre/ Comorbid Medical History	Medication Reliance
0= <6Months	0=Little	0=Insignificant	0=Insignificant	0=Insignificant	0=Little
1= <12Months	1=Mixed	1=Mixed	1=Mild/Moderate	1=Mild to <Moderate	1=Moderate
2= >12Months	2=Mostly Inconsistent	2=Mostly or All Failures	2=Significant	2=Significant	2=Significant
Especially with expectation of chronicity, poor understanding of symptoms;	Multiple, vague, variable sites; anatomically inconsistent; Sudden onset without accident or cause; not affected by weather; performing no work or chores, or avoiding easy tasks but performing most hobbies, enjoyments; pain only occasional;	Especially with complaint of treatments worsening pain or causing injury, and expectation that future treatments will fail;	Especially if silent and involving adaptation reducing impairments;	Seizure disorder; Diabetes; Hypertension; Brain injury or stroke or other neuro-logic insult or vulnerability (esp. if undiagnosed); Pre- injury medication reliance; Older; Etc.	>4X/Week Narcotic, Hypnotic or Benzodiazepine tranquilizer; Perceived inability to cope without medication;
Severity of Current Psychosocial Stress	Psychological Coping Liabilities	Victimization Perception	Social Vulnerability	Illness Reinforcement	VULNERABILITY SCORE
0=Non-significant	0=Few	0=Little	0=Little	0=Little	Total Points (Max: 22)
1=Mild/Moderate	1=Mild/Moderate	1=Mild/Moderate	1=Mild/Moderate	1=Mild/Moderate	
2=Significant	2=Significant	2=Significant	2=Significant	2=Significant	Preliminary Interpretive Guidelines: Scores of 13 or Above Suggest High Vulnerability to Chronic Disability
Sum of Personal, Social, Financial, Emotional, Identity, Activity Stresses, Life Disruption, Premorbid Coping Style Disruption, etc. and including Injury/ Impairment X Coping style incongruence; Persistent premorbid psychosocial stress levels;	Premorbid, Comorbid: Depression; Post-Traumatic Anxiety; Somatization (& Repressive) Defenses; Emotional Immaturity/ Inadequacy With Poor Coping Skills; Hypochondriacal Traits (e.g., post-injury MMPI-3 > 85; preinjury > 70); Passive Coping Style; Childhood	Externalized "Blame" for accident, disability, etc.; Perceived Mistreatment; Anger, Fear, Resentment, Distrust regarding accident, treatment, understanding (family, employer, doctors, etc - esp. given characterologic tendencies regarding victimization.	Lack of Family Support, Resources, Romantic Support (esp if recent conflict, divorce); Lack of Community Support / Resources / Involvement; Lack of Employer, Co-worker, Insurance Manger Support; Etc.	Secondary Gain: Attention, support in a dependency prone person; Avoidance of stressful or displeasing life or job responsibilities or demands (esp with recent or imminent job / job duty changes or reorganization); Financial Compensation (esp. if litigati	

Martelli, 1996

More Evidence for Biopsychosocial Effects of Catastrophic Reaction: Traumatic Disability & NEUROSENSITIZATION Syndromes

(e.g., Miller, 1997; 1998; 1999; 2000)

- **Neurosensitization Syndrome (NSS)**
 - ⇒ Syndrome of Subjective Discomfort and Objective Functional Disability
 - ⇒ Often appears Excessive in Duration and Severity (vs. initiating event)
 - ⇒ May be Resistant to Conventional Medical and Psychological interventions
 - ⇒ Hypothesized to Develop from Progressively Enhanced Sensitivity / Reactivity of CNS mechanisms

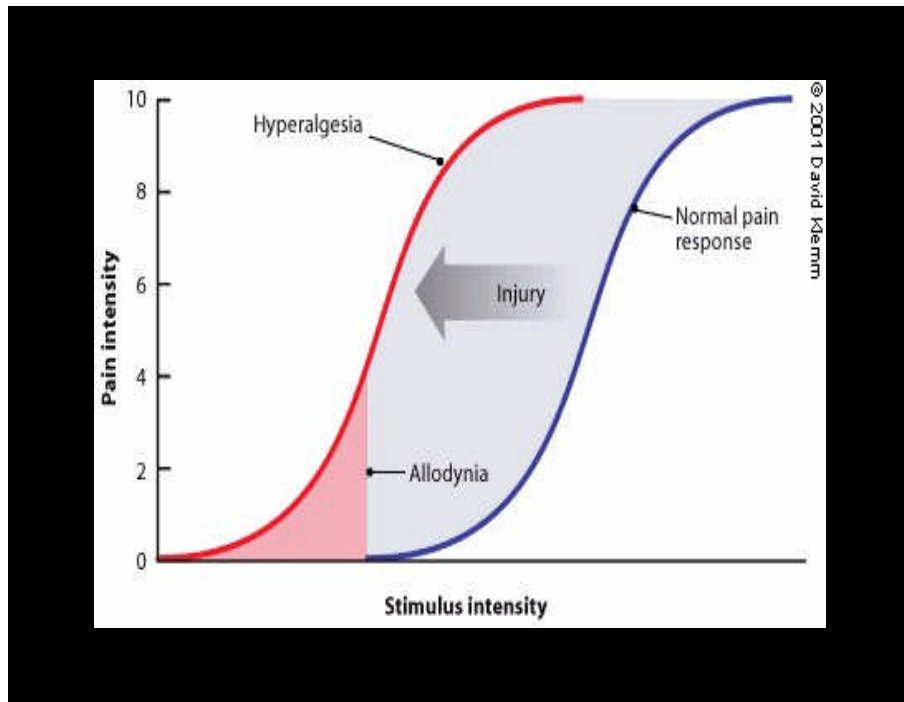
Traumatic Disability & NEUROSENSITIZATION Syndromes

(Miller, 1997; 1998; 1999; 2000)

- **Frequently Comorbid and Treatment Refractory Syndromes**
 - ⇒ Persistent Post Concussion Syndrome
 - ⇒ Post Traumatic Stress Disorder
 - ⇒ Chronic Pain
 - ⇒ Depression
 - ⇒ Trait Anxiety Disorders
 - ⇒ Vestibular Disorders
 - ⇒ Neurogenic Fatigue
 - ⇒ Hyperacusis, Tinnitus
 - ⇒ Fibromyalgia
 - ⇒ Chronic Fatigue
 - ⇒ Multiple Chemical Sensitivity

Traumatic Disability & NEUROSENSITIZATION Syndromes (Miller, 1997; 1998; 1999; 2000)

- **Effect of Repeated Stimulation on CNS**
 - ⇒ Kindling vs. Habituation
 - ⇒ **Habituation**: continuous or short interval stimulation effect
 - ⇒ **Kindling**: extended interval subthreshold stimulation summing as seizure, with permanent changes in CNS excitability resulting in susceptibility to intermittent stress, and spontaneity (amygdala)



Post-traumatic Stress Disorder

Psychological reaction to Extremely Distressing Event

- Experience intense fear, terror, and helplessness
(Loss of Control)
- Recurrent and Intrusive Recollections of event
- Distressing Dreams Re-experiencing event
- Deliberate Avoidance: associated thoughts, feelings, activities or situations
- MTBI like symptoms: Concentration difficulties, Forgetfulness, Sleep difficulties, Irritability, and Poor frustration tolerance., frequent Depression, Anxiety
- Cognitive Problems secondary to emotional and psychological distress (ACC, HPA activation)

NEUROSENSITIZATION Syndromes: Treatment Implications

(Miller, 1997; 1998; 1999; 2000)

- **Psychotropic and Pain Medications are often First Stop Gap Measures**
- **Psychotherapy is the Treatment of Choice for most cases of Traumatic Disability Syndromes**
- **Dubovsky (1997): psychotherapy relationship "splints" the neurophysiological regulatory mechanisms, providing a repeated corrective stabilization that eventually allows normal functioning**
- **Martelli (2000): "Calming the Catastrophic Reaction" through Integrated Combination Treatments**
 - **Cf EMDR, Accupuncture, Biofeedback, Grad Exposure, Teasell Physical Rehab Beta-blockers, AEDs, Amytal, Tizanidine, etc.**



Resolving the Persistent Catastrophic Reaction

- **Confront Fears/ Deficits:**
 - **Without being Overwhelmed by distress**
 - **With a Conceptual Framework and Rehab Methodolgy that Bolsters and Supports and offers Hope Conceptually and Through Graduated Successes**
 - **With a Calmer CNS and Decreasing Catastrophic Reactions (emotional, cognitive, neurophysiologic) that would block optimal recovery**
 - **Cf EMDR, Accupuncture, Biofeedback, Grad Exposure, Teasell Physical Rehab Beta-blockers, AEDs, Amytal, Tizanidine, etc.**

Holistic Habit Rehabilitation Ingredients: The 3 P's



- **Plan:** A strategy or design for stepwise progress toward a desired outcome. Most plans are based on task analyses, or breaking seemingly complex tasks down into simple component steps, and proceeding in a list wise fashion. Clearly, the more specific, concrete, and obvious, the more likely the plan will work.
- **Practice:** Repetition is the cement for learning which makes complex and cumbersome and boring tasks more automatic and effortless. With practice and repetition, even complex tasks become automatic and habitual. That is, a habit, or automatic robots, performs the tasks for us without special effort, energy, concentration, memory, and so on.
- **Promoting Attitude:** A facilitative attitude provides the motivation that fuels persistence & mobilization of energy necessary for accomplishment of a progressive series of desirable but challenging goals.

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1999



Task Analysis: The Building Block of LEARNING

- **TA: Breaking a task into single, logically sequenced steps & recording in a Checklist** and then checking off each step as it is completed.
- **TA's always make task initiation, completion & follow through much easier**....greatly improve performance despite limitations in memory, attention, energy, initiative, ability to sustain performance, organization...any other difficulty.
- **TA's reduce demand and energy consumed** by reasoning and problem solving associated with planning, organizing & having to recall, make decisions & prioritize appropriate steps and sequences for both **basic & complex tasks**.
- **TA's (re)establish efficient habit routines** that make up normal everyday activity.
30 to 1000 consistent repetitions produce **automatic habits**
- **Ingredients** for (re)building automatic habits are the **3 P's: Plan, Practice, Promoting Attitude**. The result is (re)habilitation, or increased efficiency accomplished by removing obstacles to independence.



The Five Commandments of Rehabilitation:

Incorporating Cognitive Behavioral Psychotherapy to Conquer the Catastrophic Reaction



- Thou Shall Make Only Accurate Comparisons. *Thou shall not make false comparisons.*
- Thou Shall Learn New Ways to Do Old Things.
- Thou Shall Not Beat Thyself Up...Instead, Thou Shall Build Thyself Up!
- Thou Shall View Progress as a Series of Small Steps
- Thou Shall Expect Challenge & Strive to Beat IT

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Shaping via Reinforcement of Successive Approximations of Desired Behavior:

- * This involves **successively rewarding the smallest movements (baby steps) in the desired direction** with carrots (i.e., verbal rewards, expressions of approval & appreciation, smiles & nonverbal gestures of approval, physical/tangible rewards, jumping up with joy, etc.)
- * Each successful small step is rewarded, which teaches **graduated successes.**

Psychologically Based Pain Management

- * Relaxation training
- * Biofeedback
- * Visualization/hypnosis
- * Attention focus/distraction
- * Graduated Exposure/ Activity Programming
- * Contingency Management
- * Cognitive Behavioral Psychotherapy
- * Treatment of comorbid depression, etc.
- * Multidisciplinary and Interdisciplinary Treatment
- * COMBINATION TREATMENTS

Desensitization Procedure Options

Desensitizing Medications

▶ **Central Nervous System (CNS) Medications:** *Anti-epileptic drugs, Tizanidine HCL, Amytal, etc.*

▶ **Peripheral Nervous System (PNS) Medications:** *muscle relaxants; homeopathics?*

Desensitizing CNS Neurophysiologic

Procedures: *EEG Biofeedback or EEG Driven Stimulation and adjunctive procedures such as sound and light (AudioVisualStimulation) and CranioElectrotherapy Stimulation), Transcranial Magnetic Stimulation, Brain Electrical Stimulation*

▶ **Desensitizing PNS Procedures:** *EMG, Temp. Biofeedback; Various Relaxation Procedures; TENS*

Desensitization Procedure Options *(cont)*

Desensitizing Behavioral Activity Procedures:

Graduated Exposure / graduated activity programs; various exposure desensitization interventions, systematic desensitization, etc.; Pacing

Desensitizing Psychotherapeutic Procedures:

Emotional desensitization of catastrophic reaction to injury and pain and other fears and trauma; splinting of emotional reactions; calming the catastrophic reaction; emotional reaction systematic desensitization; sensory desensitization / reprocessing psychotherapy

Powerful Psychotherapy Interventions

- ❑ **Relaxation Proc's, Biofeedback, Hypnosis, etc.**
- ❑ **Cognitive Behavioral Psychotherapy**
- ❑ **Desensitization Procedures**
- ❑ **Shaping**
- ❑ **Behavioral Programming**
- ❑ **Schwartz (1996) 4-Step OCD TX Method**
- ❑ **Holistic Habit Retraining & Practical Adaptations**
- ❑ **Combination Interventions**
- ❑ **Network Therapy**
- ❑ **Group / Family Therapy**

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1999

Effective Behavioral Medicine Group Studies

**Shapiro, Teasell (in press). Brit J Psychiatry*

Design: 39 Conversion / Factitious motor disorder patients

■ **Standard Behavioural Rehabilitation program**

■ 8 of 9 acute, 1 of 28 chronic pts improve

■ **Strategic-behav TX for Nonimprovers**

→ **Frame: Full recovery = Organicity; Nonrecovery = Psychiatric**

■ 13/21 chronic pts symptom-free at d/c

Conclusions: Strategic intervention superior with chronic pts. Other Tx components (wellness reinforcement, skills training) may be unnecessary.

**Barsky, Ahern (2004) JAMA. 2004;291:1464-1470*

Design: RCT of 167 hypochondriacal pts & volunteers

Intervention: 6-session, individual CBT vs usual medical care

Results at 12mo f/u:

■ Less Hypochondriacal symptoms, beliefs, attitudes, health anxiety

■ Less Impairment of social role functioning and ADL's

■ No change in Hypochondriacal somatic symptoms

Conclusion Brief, individual CBT designed to alter hypochondriacal thinking and restructure beliefs, produces beneficial long-term effects.

Mind/body therapies (MBT) for Pain and Symptom Management

- Clinical Review by Astin JA et al.
- MBT = Relaxation, imagery, biofeedback, CBT, meditation, - not yoga or Tai Chi
- Oxman/Guyatt quality rating scale
- "Considerable evidence" for MBT in headache, insomnia, chronic LBP, CA sx, post-op outcomes
- "Moderate evidence" for HTN and OA
- Astin JA et al. Mind-body medicine: state of the science, implications for practice. J Am Board Fam Pract 2003;16:131-47

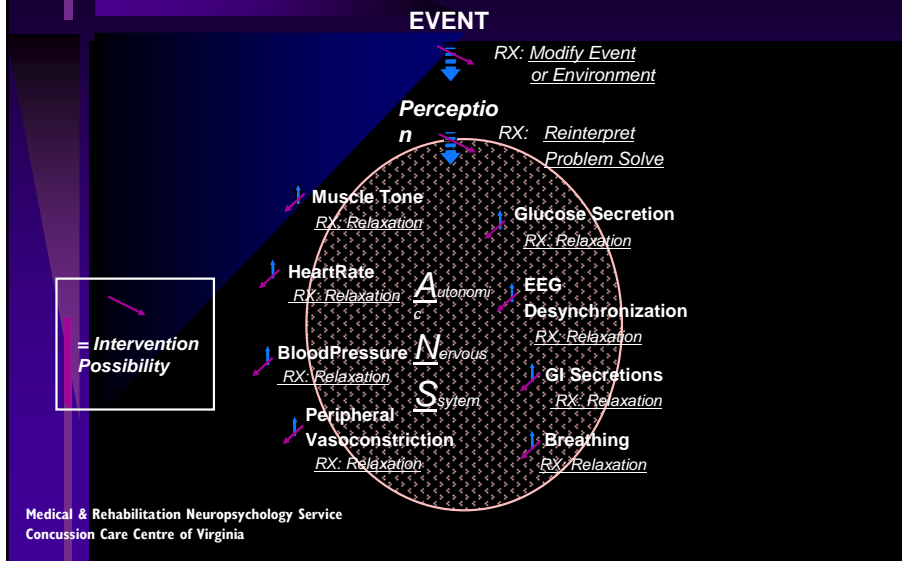
Biofeedback

- Visual and/or auditory information about bodily functions
 - Muscle tension
 - Skin temperature
 - Heart rate
 - Blood pressure
 - Breathing
 - Sweat gland activity
 - EEG (Brain waves)

Commonly treated conditions:

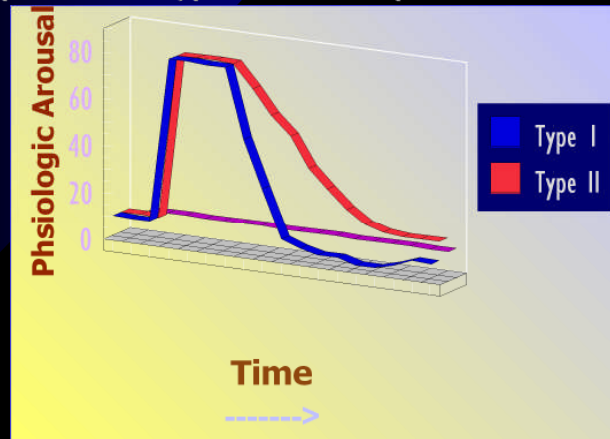
- Hypertension
 - Feedback on blood pressure, heart rate, and skin temperature (fingers, toes)
- Headaches
 - Feedback on muscle tension in the face and neck muscles
- Other chronic pain conditions, esp back, shoulders

PHYSIOLOGIC STRESS RESPONSE



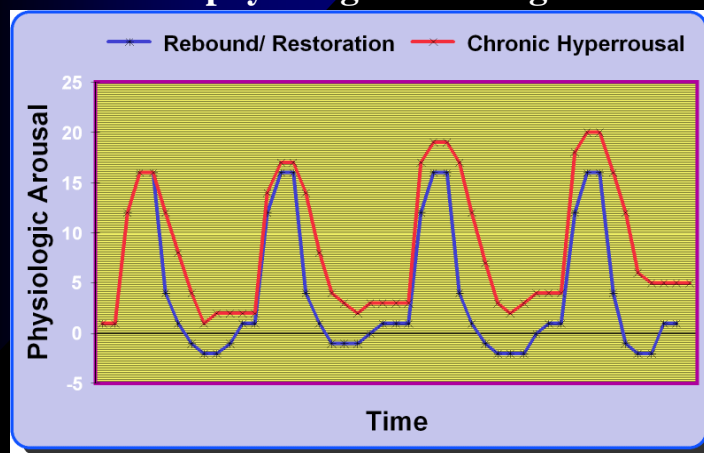
PATTERNING: Physiologic Response Habits

- Type I (Good) versus Type II (Bad) Stress
- Type I versus Type II Stress Response Habit



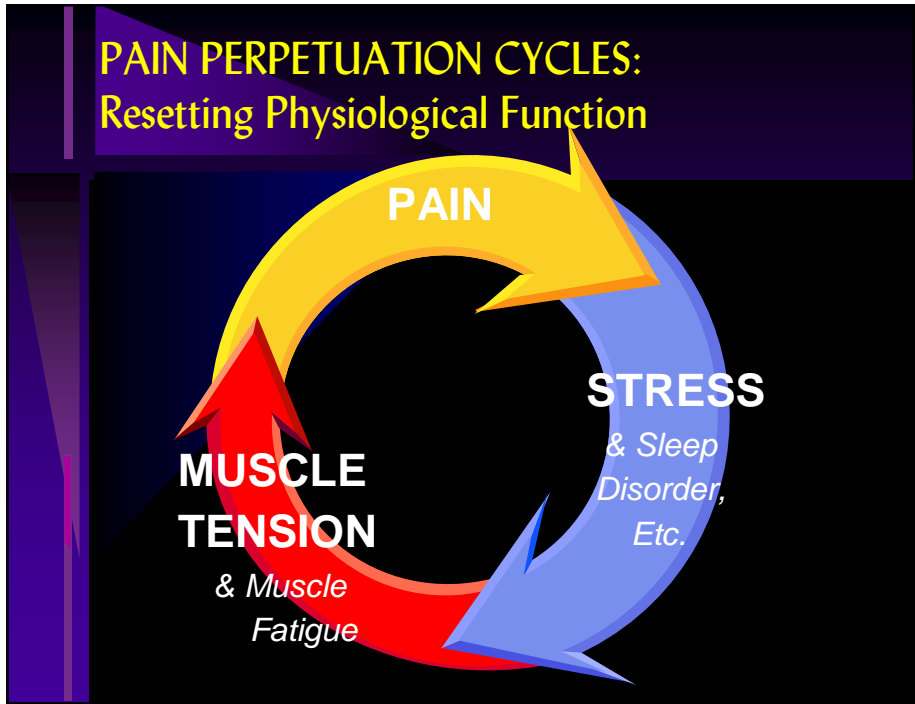
Chronic Stress and Disease Models

Pathophysiologic Resetting

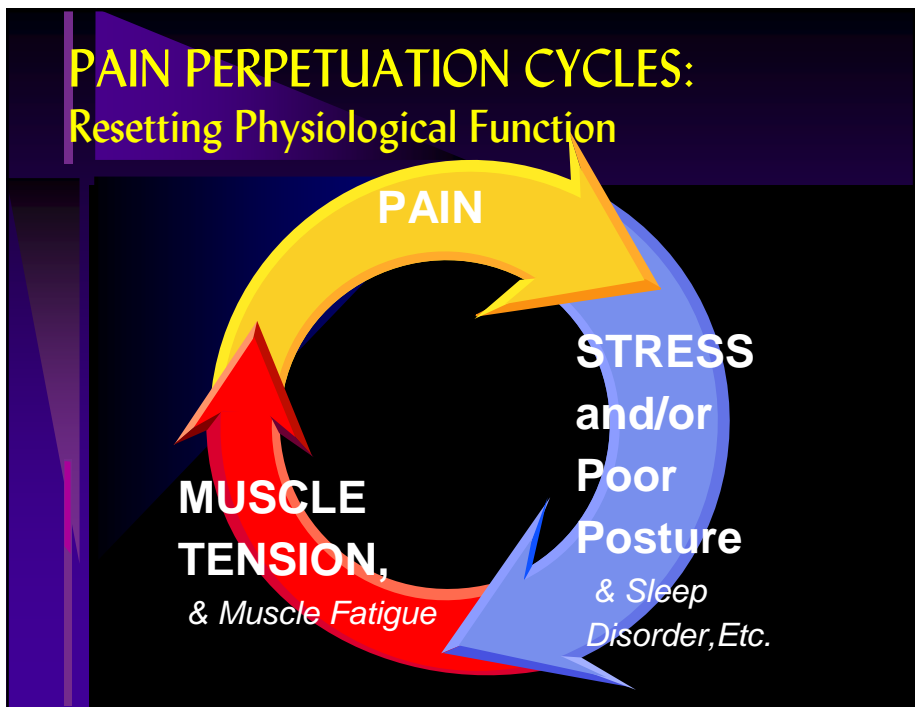


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**PAIN PERPETUATION CYCLES:
Resetting Physiological Function**



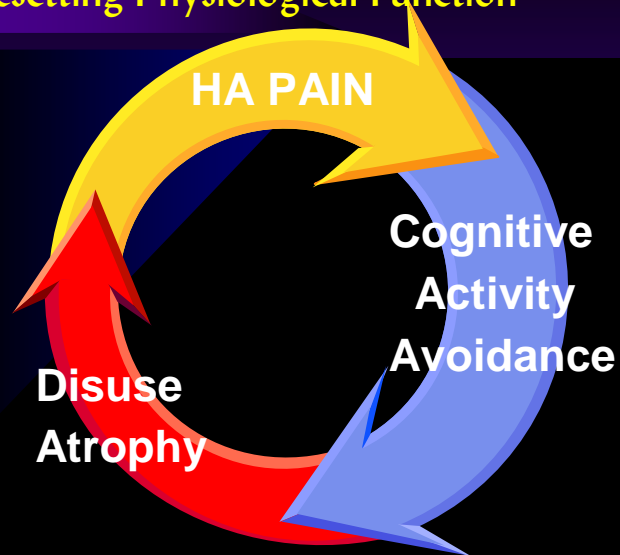
**PAIN PERPETUATION CYCLES:
Resetting Physiological Function**



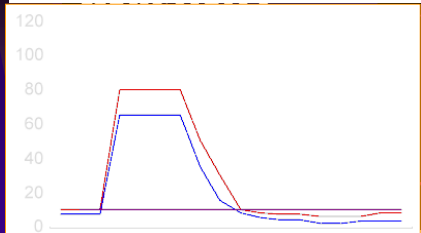
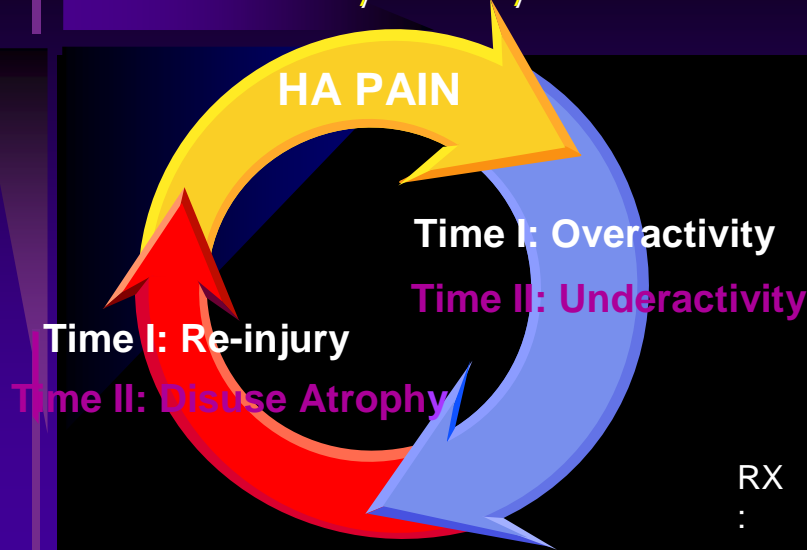
**PAIN PERPETUATION CYCLES:
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PAIN PERPETUATION CYCLES: Over-Under-Activity Disability Pattern



Time

The Basics: **The 3 R's of Self Control**

RESTING Baseline refers to the usual state of physiological & emotional arousal - for example, level of muscle tension, heart rate, electrical activity in the brain, or more general level of stress or emotional distress. Decreasing resting baseline level of physiological or emotional arousal provides increased protection against the harmful effects of stress by establishing a healthier regular resting state and a buffer against future stresses.

REACTIVITY to stressful events refers to the strength of increases in physiological variables such as heart rate, muscle tension or blood pressure, or the level of increased emotional arousal in response to stressful events. Decreasing our reactivity to stresses in the environment by controlling elevations in individual physiological channels & emotional status is another way of reducing the harmful effects of stress on our bodies and emotions.

RECOVERY refers to the length of time required for reducing physiological and emotional reactions to normal levels after stress responses. Learning to more quickly reduce our physiological and emotional responses reduces the harmful effects that come from prolonged stressful reactions and helps produce greater rebound & restoration of general physiological and emotional health. More importantly, it facilitates a habit of healthy recovery after stress that will lower long term physical and emotional distress and promote improved health and resistance to continuing stressors are encountered in everyday life.

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Table 1
The Four Rs Approach to Consumer-Focused Psychological Assessment

Relevant:

Identify consumer needs. Consumers indicate that reports:

1. Contain too much jargon; reading level is too advanced
2. Overly re-stated history of tests
3. Contain stereotyped content
4. Are deficit-focused
5. Contain vague recommendations

Response:

Create a useful product:

1. Reduce jargon; write at a lower reading level
2. Reduce use of standard history; focus on relevant questions
3. Individualize content
4. Focus on strengths
5. Write concrete recommendations

Relationships:

Build lasting alliances with consumers:

1. Collaborate with consumer to formulate relevant questions
2. Collaborate with consumer during verbal feedback session

Results:

Continually assess attempts at consumer focus:

1. Measure consumer satisfaction
2. Monitor frequency of referrals

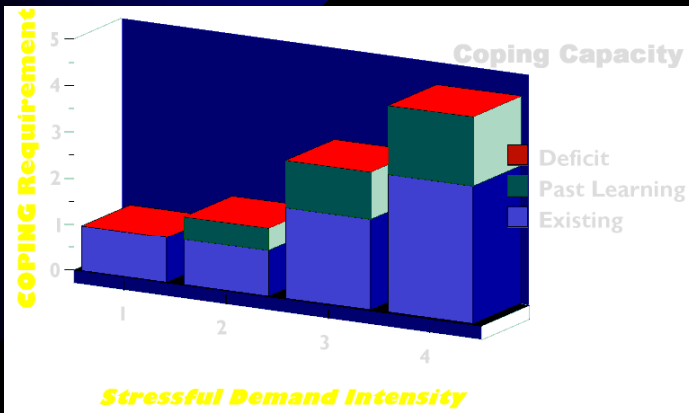
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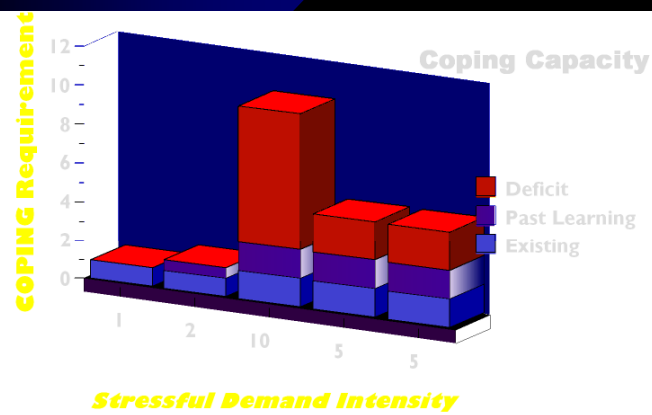


Acquisition of Coping: Resilience (Optimal Learning)



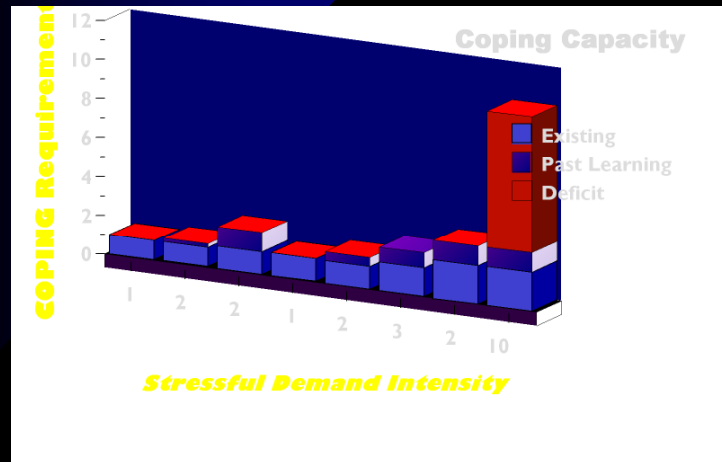
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Poor Acquisition of Coping: (Suboptimal Learning: Traumatization)



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Poor Acquisition of Coping: (Suboptimal Learning: Overprotection)



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Graduated Exposure Programs in Rehabilitation

- Exposure to distressful emotional, physiological and sensory reaction situations
- Incremental increases in tolerance (and incremental compensatory learning, anxiety extinction, sensory interpretation distress) without experiencing significant anxiety or sensory distress.
- Requires person Not experience distressful reactions or experiences.
- Examples: anxieties, phobias & distressful emotions and sensory reactions related to the following:
 - ▶ Noise and/or light (when not mediated by headaches, etc.)
 - ▶ Crowds and public places (e.g., stores, malls, sporting events)
 - ▶ Overwhelming visual stimulation and patterns
 - ▶ Driving (especially in traffic)

METHOD: Schedule Gradually Increased Exposure / Assigned Activities, Incremented in Time and/or Distance and/or Intensity that are followed Exactly

Lisa's Graduated Exposure Driving Program

(Beginner's Version)

Level/ Step	Activity	Time	Frequency	SUDS
1-1	Sit in and Start Car	<= 2 min.	1-3 X/day	
1-2	Start Car, Back up slightly, then pull forward in driveway, going no further than is comfortable	<= 2 min.	1-3 X/day	
1-3	Start Car, Back up all the way to street, then pull forward, going no further than is comfortable, and repeat one or two times.	<= 2 min.	1-3 X/day	
2-1	Start Car, Back up all the way to street and then slightly into street, then pull forward, going no further than is comfortable, and repeat one or two times.	<= 2 min.	1-3 X/day	
2-2	Start Car, Back up all the way to and one full car length into the street and then then pull forward, going no further than is comfortable, and repeat one or two times.	<= 2 min.	1-3 X/day	

RULES:

- Stop the activity if you begin to feel even a little shaky.
- Do not progress to next level previous level completed for all exposures for 2 consec. days
- Email feedback to MFM re: progress, any shakiness you experienced, when level completed

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Graduated Exposure Sensory Tolerance Program

Level/ Step	Activity	Time	Frequency	SUDS
1-1	Stand on stepladder or chair for 3 Sec's (s)	3 Sec.	3 X/day	
1-2	Perform a visuomotor scanning computer exercise	30 Sec	4 X/day	
2-1	Listen to radio while driving	1 Min	1-3 X/day	
2-2	Track 2 persons talking at same time	2 Min.	1-3 X/day	
3-3	Visit Clover Mall (9-11am, 2-4pm, Main ent.)	10 min.	1-2 X/day	

Sample Rationale: "Like Breaking a Bronco, you can't learn to ride until you can get in the saddle. You can't get in the saddle until the horse believes it won't die if something gets on its back. Similarly, You can't increase your tolerance for (sounds, etc.) unless your system learns that it can tolerate some level of that (noise, etc.) without great (distress, pain, fatigue, etc.)."

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