

Coming Home
STRONG!



The Treatment of PTSD with Chinese Medicine—An Integrative Approach

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Economic Perspective

Economic Perspective

- In a study conducted by The RAND Corporation, researchers estimated that PTSD and depression among returning service members will cost the nation as much as \$6.2 billion in the two years following deployment -- an amount that includes both direct medical care and costs for lost productivity and suicide.
- For a typical service member returning from Iraq or Afghanistan (an E-5 with 5 to 7 years of service), baseline scenario predicts that two-year post-deployment costs range from \$5,635 to \$13,935 for PTSD.
- One year post-deployment costs range from \$27,259 to \$32,759 for mild Traumatic Brain Injury.
- One year post-deployment costs range from \$268,902 to \$408,519 for moderate or severe Traumatic Brain Injury.

Economic Perspective

- The Congressional Budget Office (CBO) estimated that life-long veteran benefits will be \$7 to \$9 billion over a period of 2008 through 2017 for Afghanistan and Iraq veterans.
- Therefore, investing in more high-quality treatments could save close to \$2 billion within two years by substantially reducing those indirect costs.
 - So far, the Pentagon has invested \$5 million in 2008 on research in seeking new ways to treat troops suffering from combat stress and brain damage by researching alternative methods such as acupuncture, meditation, yoga, and the use of animals as therapy.

Research

Research

- Acupuncture for Posttraumatic Stress Disorder in a Military Population
 - To evaluate the efficacy and acceptability of acupuncture as a treatment for PTSD in a military population, we conducted a 12-week (8-treatment), wait-listed control trial (n=55).
 - Acupuncture was associated with a significant decrease in PTSD Checklist (PCL-M) symptoms, which was maintained at the 3-month follow-up.
 - Symptom reductions were significantly greater in the acupuncture group as compared to the wait-listed control.
 - Similar patterns of improvement were seen with symptoms of pain, depression, and psychological functioning.

Research

- Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury Studies Funded:
 - Acupuncture for Combat-Related Post-Traumatic Stress Disorder.
 - Acupuncture as a Novel Technique for Treating Insomnia in the Outpatient Traumatic Brain Injury population: A Randomized Controlled Trial.
 - Acupuncture for the Treatment of Trauma-Induced Spectrum Disorder: A Three-Armed Randomized Pilot Study
 - Evaluation of a Yoga Intervention for PTSD.
 - The Impact of Meditation on Veterans with Post-Traumatic Stress Disorder.
 - Mindfulness and Self-Compassion Meditation for Combat Post-Traumatic Stress Disorder: A Randomized Controlled Trial and Mechanistic Study.

Research: Acupuncture for PTSD

Research: Acupuncture for PTSD

- Acupuncture and Integrated CBT for Post-Traumatic Stress Disorder: A Randomized Controlled Pilot Trial
 - Subjects diagnosed with PTSD were randomized to either acupuncture treatment, a group integrated cognitive-behavioral therapy (iCBT), or a wait-list control (WLC).
 - The primary outcome measure was self-reported PTSD symptoms at baseline, end-treatment, and three-month follow-up.
 - Compared to the WLC condition, acupuncture provided large treatment effects for PTSD ($p < 0.01$), similar in magnitude to group iCBT ($p < 0.01$).
 - Symptom reductions at end-treatment were maintained at 3-month follow-up for both interventions. Acupuncture may be an efficacious non-exposure treatment option for PTSD.

Research: Randomized Effectiveness Trial of a Brief Course of Acupuncture for Posttraumatic Stress Disorder

Research: Acupuncture for PTSD with Usual PTSD Care

- Acupuncture with usual PTSD care as compared to usual PTSD care:
 - Fifty-five service members meeting research diagnostic criteria for PTSD were randomized to usual PTSD care (UPC) plus eight 60-minute sessions of acupuncture conducted twice weekly or to UPC alone.
 - The primary study outcomes were differences in PTSD symptom improvement on the PTSD Checklist (PCL) and the Clinician-administered PTSD Scale (CAPS) from baseline to 12-week follow-up between the 2 treatment groups.
 - Mean improvement in PTSD severity was significantly greater among those receiving acupuncture than in those receiving UPC.
 - Acupuncture was also associated with significantly greater improvements in depression, pain, and physical and mental health functioning.

Research: Using the NADA Protocol to Treat Combat Stress-Induced Insomnia

Research: NADA Protocol

- The NADA protocol was associated with statistically significant improvements in overall scores of:
 - The Pittsburg Sleep Quality Index (PSQI, $p \leq 0.04$ at five days post-treatment and follow-up after one week)
 - Statistical significant improvement in sleep quality post-treatment ($p \leq 0.05$) on the PSQI.
 - Post-Traumatic Stress Disorder Check List- Military Version (PCL-M, $p \leq 0.05$ at five days post-treatment and follow-up after one week)
 - Reductions in re-experiencing ($p < 0.04$ at follow-up) and hypervigilance ($p < 0.003$ post-treatment) were statistically significant on the PCL-M.

Research: Psychological
Trauma Symptom
Improvement in Veterans
Using Emotional Freedom
Techniques

Research: EFT for PTSD

- The EFT intervention consisted of 6-hour-long EFT coaching sessions concurrent with standard care.
- The standard of care wait-list (SOC/WL) and EFT groups were compared before and after the intervention (at 1 month for the SOC/WL group and after six sessions for the EFT group):
 - the EFT subjects had significantly reduced psychological distress ($p < 0.0012$) and PTSD symptom levels ($p < 0.0001$).
 - 90% of the EFT group no longer met PTSD clinical criteria, compared with 4% in the SOC/WL group.
 - in both study groups, PCL-M clinical symptom scores showed subjects no longer met PTSD criteria after 3 sessions, at the 3-month follow-up, and at 6-month follow-up.

Research: Acupuncture Modulates the Limbic System

Research: Acupuncture Modulates the Limbic System

- Centers of Excellence for Research on CAM
 - Neuroimaging Acupuncture Effects on Human Brain Activity
 - Functional MRI (fMRI) and PET studies on acupuncture at specific acupuncture points have demonstrated significant modulatory effects on the limbic system, paralimbic, and subcortical gray structures.
 - In a fMRI study at Harvard University (Hui et al., 2005), acupuncture stimulation that produced de-qi sensation at ST36 produced a reduction in neuronal activity, particularly the limbic/paralimbic structures and limbic cortices in the cerebrum (amygdala, hippocampus, cingulate, septal area, temporal pole, frontal pole, and ventromedial prefrontal cortex).

Research: Yoga as an
Adjunctive Treatment for
Posttraumatic Stress
Disorder- A Randomized
Controlled Trial

Research: Yoga for PTSD

- 16 of 31 participants (52%) in the yoga group no longer met criteria for PTSD compared to 6 of 29 (21%) in the control group (n=60, $P=0.013$).
- Participants were randomly assigned to either trauma-informed yoga or supportive women's health education, each as a weekly 1-hour class for 10 weeks.
- Assessments were conducted at pretreatment, midtreatment, and posttreatment.
- Both groups exhibited significant decreases in PTSD symptoms during the first half of treatment, but these improvements were maintained in the yoga group, while the control group relapsed after its initial improvement.

Research: Healing Touch with
Guided Imagery for PTSD in
Returning
Active Duty Military- A
Randomized Controlled Trial

Research: Healing Touch for PTSD

- A randomized controlled trial to determine whether a complementary medicine intervention (Healing Touch with Guided Imagery [HT+GI]) in addition to any other standard care, reduced PTSD symptoms as compared to treatment as usual (TAU) in returning combat-exposed active duty military with significant PTSD symptoms.
- Active duty military (n=123) were randomized to 6 sessions (within 3 weeks) of HT+GI vs. TAU.
- Statistically and clinically significant reduction in PTSD symptoms ($p < 0.0005$) as well as depression ($p < 0.0005$) for HT+GI vs. TAU.
- HT+GI also showed significant improvements in mental quality of life ($p=0.002$) and cynicism ($p=0.001$) vs. TAU.

Research: Impact of Transcendental Meditation on Psychotropic Medication Use Among Active Duty Military Service Members with Anxiety and PTSD

Research: TM for PTSD and Anxiety

- The purpose of the study was to determine whether the regular practice of Transcendental Meditation (TM) decreased the need for psychotropic medications required for anxiety and post-traumatic stress disorder (PTSD) management and increased psychological wellbeing.
- At 1 month, 83.7% of the TM group stabilized, decreased, or ceased medications and 10.8% increased medication dosage; compared with 59.4% of controls (did not practice TM) that showed stabilizations, decreases, or cessations; and 40.5% that increased medications ($p < 0.03$).
- A similar pattern was observed after 2 ($p < 0.27$), 3 ($p < 0.002$), and 6 months ($p < 0.34$).
 - The control group experienced an increase in symptom severity compared with the group practicing TM post-six months.

Research: A Randomized Controlled Study of Neurofeedback for Chronic PTSD

Research: Neurofeedback for PTSD

- 52 individuals with chronic PTSD were randomized to either NF (n=28) or waitlist (WL) (n=24).
- Four evaluations were completed at baseline (T1), after week 6 (T2), at post-treatment (T3), and at one month follow-up (T4).
- Assessment measures were: 1. Traumatic Events Screening Inventory (T1); 2. the Clinician Administered PTSD Scale (CAPS; T1, T3, T4); 3. the Davidson Trauma Scale (DTS; T1-T4) and 4. the Inventory of Altered Self-Capacities (IASC; T1-T4).
- Compared with the control group, NF produced significant PTSD symptom improvement in individuals with chronic PTSD, as well as in affect regulation capacities.

Research: Acupuncture for
Treatment of Persistent
Disturbed Sleep-
A RCT in Veterans With mTBI
and PTSD

Research: Acupuncture for Persistent Disturbed Sleep in Veterans with mTBI and PTSD

- 60 veterans with history of mTBI, refractory sleep disturbance, and concurrent diagnosis of PTSD were randomized.
- Each participant received up to 10 treatment sessions twice weekly over 5 weeks lasting 50-60 minutes.
- Participants received either sham or real acupuncture with no concurrent psychotherapy or behavioral therapy.
- No needle manipulations were performed to elicit de-qi sensation in either group.
- Those receiving real acupuncture had a global Pittsburgh Sleep Quality Index improvement of 4.4 pts ($P=0.04$) and actigraphically measured sleep efficiency (absolute) improvement of 2.7% ($P=0.0016$).
- Real acupuncture compared with sham needling procedure resulted in a significant improvement in sleep measures for veterans with mTBI and disturbed sleep, even in the presence of PTSD.

Research: Acupuncture for Gulf War Illness

Research: Acupuncture for Gulf War Illness

- This pragmatic randomized clinical trial tested the effects of individualized acupuncture treatments offered in extant acupuncture practices in the community.
- Veterans with diagnosed symptoms of Gulf War Illness were randomized to either six months of biweekly acupuncture treatments (group 1, n=52) or 2 months of waitlist followed by weekly acupuncture treatments (group 2, n=52).
- Measurements were taken at baseline, 2, 4, and 6 months. The primary outcome is the SF-36 physical component scale score (SF-36P) and the secondary outcome is the McGill Pain scale.
- A clinically and statistically significant average improvement in the SF-36P and the McGill Pain scale was observed for group 1 at month 6 compared to group 2.

Research: Matrix Analysis of Traditional Chinese Medicine Differential Diagnoses in Gulf War Illness

Research: Matrix Analysis of Traditional Chinese Medicine Differential Diagnoses in Gulf War Illness

- Frequencies of diagnoses of excess, deficiency, and channel patterns were tabulated.
- Diagnoses of excess combined with deficiency decreased from 43% at baseline to 39% of the sample at 6 months.
- Excess + deficiency + channel imbalances decreased from 26% to 17%.
- Deficiency + channel imbalances decreased from 11% to 4% over the study duration.
- This may suggest that fewer people were diagnosed with concurrent excess, deficiency, and channel imbalances and perhaps a lessening in the complexity of their presentation.

Research: Effects of Integrative PTSD Treatment in a Military Health Setting

Research: Integrative PTSD Treatment

- The Warrior Combat Stress Reset Program, an innovative intensive outpatient behavioral health program at the Carl R. Darnall Army Medical Center at Fort Hood, Texas, provided integrative care for active-duty service members for the treatment of PTSD symptoms from 2008 to 2015.
- The Reset protocol combined trauma-focused behavioral health techniques with complementary and alternative medicine (CAM) modalities including acupuncture, massage, Reiki, reflexology, and yoga.
- Treatment outcomes were analyzed for 764 service members who attended the 3-week behavioral health program between 2008 and 2013.
- Significant reductions in PTSD symptoms (PTSD Checklist–Military version; $p < .001$), anxiety (Beck Anxiety Inventory; $p < .001$), depression (Beck Depression Inventory II; $p < .001$), and pain (Oswestry Pain Index; $p < .001$) from pre- to post-treatment.

Research: Treatment of Depression with OnabotulinumtoxinA

Research: Treatment of Depression with OnabotulinumtoxinA

- To determine the antidepressant effect of onabotulinumtoxinA (OBA) treatment of corrugator and procerus muscles in people with major depressive disorder.
- Eighty-five subjects with DSM-IV major depression were randomized to receive either OBA (29 units for females and 40 units for males) or saline injections into corrugator and procerus frown muscles (74 subjects).
- A single treatment with OBA to the corrugator and procerus muscles appears to induce a significant and sustained antidepressant effect in patients with major depression.

Research: Treatment of Depression with OnabotulinumtoxinA

- Omega sign / omega melancholicum – Wrinkling of the skin above the nose and between the eyebrows that resembles the greek letter 'omega' produced by the excessive action of corrugator muscle
- First described by Charles Darwin in 'The expressions of the emotions in man and animals'



Research: Acupuncture for Chronic Pain

Research: Acupuncture for Pain

- Acupuncture is associated with improved pain outcomes compared with sham-acupuncture and no-acupuncture control, with response rates of approximately 30% for no acupuncture, 42.5% for sham acupuncture, and 50% for acupuncture.

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Integrative Care: VA and U.S. Army

Integrative Care

- VA:
 - Whole Health Approach
 - Whole Health Clinical Care is provided by clinicians who utilize a whole health approach, which is grounded in a healing relationship and incorporates complementary and integrative health approaches based on the Veteran's personal health plan.
 - Well-Being Programs focus on self-care and equip each person with skill building and proactively supports one's personal health plan with complementary and integrative health (CIH) approaches such as mindfulness, yoga, tai chi, and health coaching.
 - Integrative Pain Clinics throughout the VA
 - Acupuncturists are utilized within various pain clinics.
- U.S. Army:
 - Integrative Pain Clinics (i.e., medical massage, acupuncture, yoga, chiropractic care).

Post-Traumatic Stress Disorder

Post-Traumatic Stress Disorder

- Definition: Post-Traumatic Stress Disorder (PTSD) is an anxiety disorder that develops in response to a traumatic experience and is characterized by the core features of reexperiencing, avoidance behaviors, numbing responsiveness, and hyperarousal.

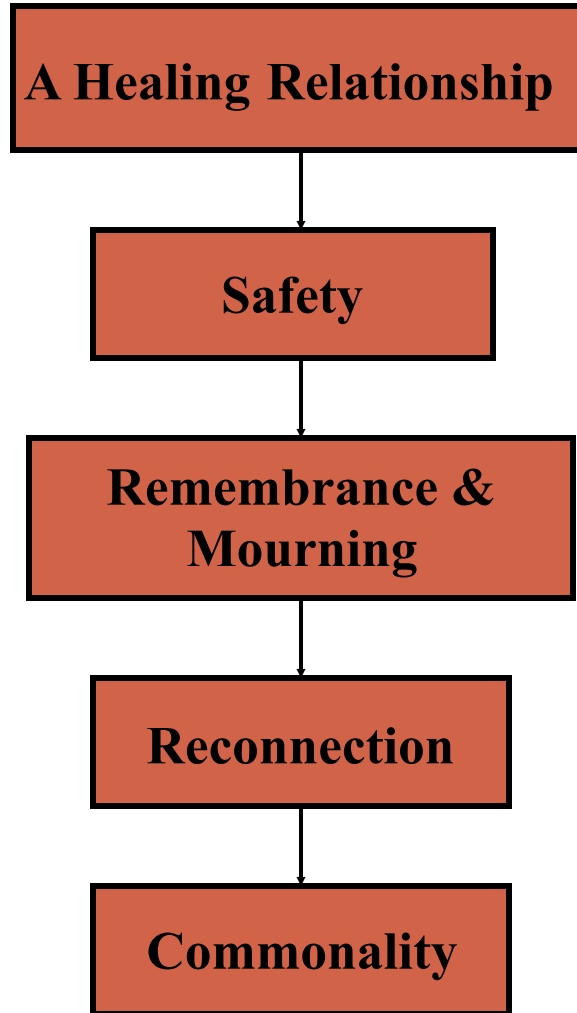
Types of Trauma Events

- “Shock and Awe” – Usual definition
 - Conditioned responses to fear, horror, and shock.
- Grief, Loss, Guilt
 - Includes “Survivor Guilt.”
 - Complex grief, unfinished.
- “Moral Injury”
 - Broken beliefs, values, and faith.
 - Betrayal and disappointment.
 - “Wrongness” or “Evil” at a deep level.

Complex PTSD

- Changes in Self-Perception
 - Helplessness, shame, guilt, stigma.
- Difficulties Regulating Emotions
 - Explosive anger, persistent sadness.
- Alterations in Consciousness
 - Forgetting, reliving, or detached, dissociated.
- Alterations in Relations with Others
 - Interpersonal problems (i.e., anger), distrust, isolation.
- Changes in One's System of Meanings
 - Loss of faith, sense of hopelessness and despair, rage.
- Developmental Trauma
 - Many soldiers have severe developmental trauma before the military.

Stages of Recovery



Stages of Recovery

- A Healing Relationship
 - The core experiences of psychological trauma are disempowerment and disconnection from others. Recovery, therefore, is based upon the empowerment of the survivor and the creation of new connections.
 - The first principle of recovery is the empowerment of the survivor. The survivor must be the author and arbiter of their own recovery.
- Safety
 - Establishing safety begins by focusing on control of the body.
 - Regulation of bodily functions such as sleep, eating, and exercise, management of post-traumatic symptoms, and control of self-destructive behaviors.
 - Establishing safety with the control of ones environment.
 - The establishment of a safe living situation, financial security, and a plan for self-protection.

Stages of Recovery

- Remembrance and Mourning
 - A story of the trauma is reconstructed.
 - Reconstructing the trauma story begins with a review of the patient's life before the trauma.
 - The telling of the trauma story will inevitably plunge the survivor into profound grief. The descent into mourning is at once the most necessary and the most dreaded task of this stage of recovery.
- Reconnection
 - A survivor faces the task of creating a future; they have mourned the old self that the trauma destroyed, now they must develop a new self.
 - A survivor can establish an agenda. They can recover some of their aspirations from the time before the trauma.
 - With peers, they now seek mutual friendships.

Stages of Recovery

- Commonality
 - Traumatic events destroy the sustaining bonds between individual and community. Those who have survived learn that their sense of self, worth, of humanity, depends upon a feeling of connection to others.
 - The solidarity of a group provides the strongest protection against terror and despair, and the strongest antidote to traumatic experience.
 - The restoration of social bonds begins with the discovery that one is not alone.
 - Nowhere is this experience more immediate, powerful, or convincing than in a group. Because traumatized people feel so alienated by their experience, survivor groups have a special place for the recovery process.
 - The encounter with others who have undergone similar trials dissolves feelings of isolation, shame, and stigma.

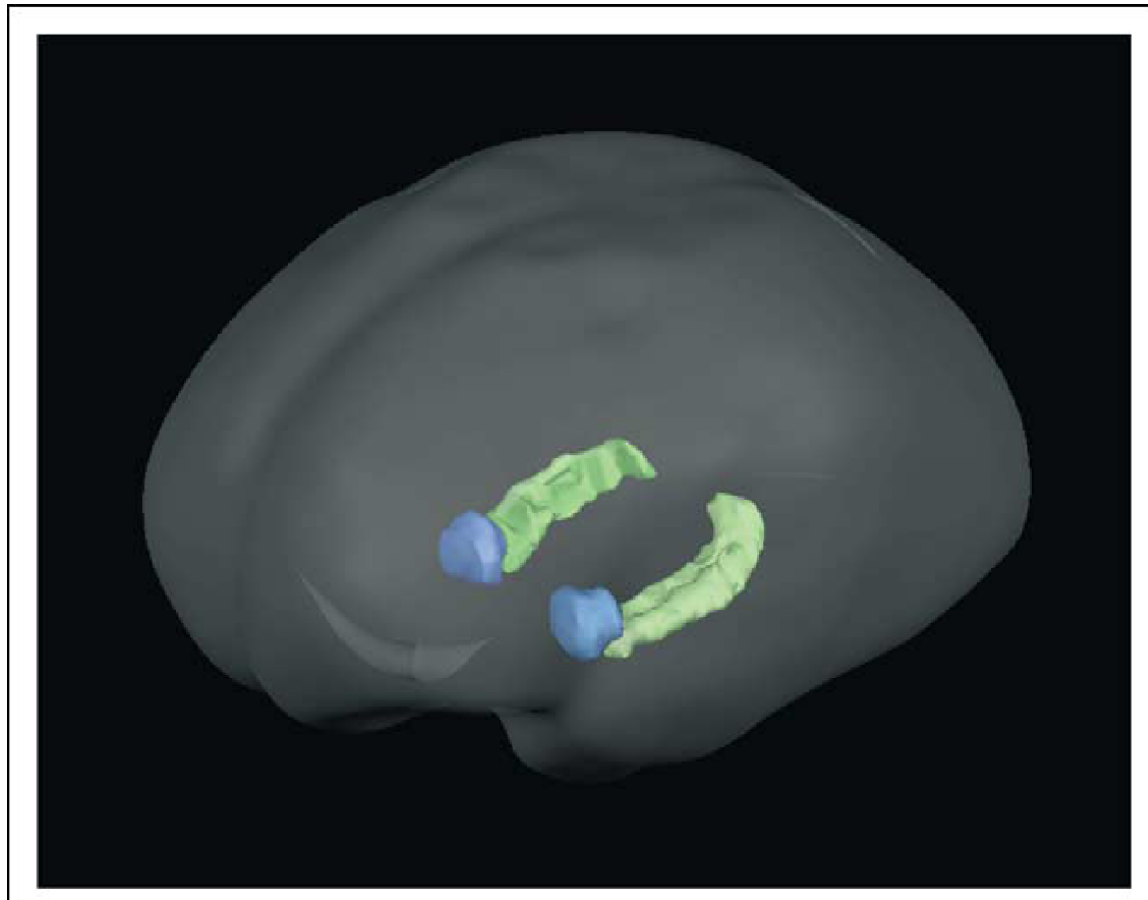
PTSD Symptom Clusters

- Repeated “reliving” of the event
 - Recurrent distressing memories of the event
 - Recurrent dreams of the event
 - Flashback episodes
 - Bodily reactions to situations that remind them of the traumatic event
- Avoidance
 - Inability to remember important aspects of the trauma
 - Lack of interest in normal activities
 - Feelings of detachment
 - Sense of having no future
 - Emotional “numbing”
 - Reduced expression of moods
- Arousal
 - Outburst of anger
 - Sleeping difficulties
 - Difficulty concentrating
 - Hypervigilance

PTSD Symptom Clusters

- PCL-M by Item
- ****Related to Hyperarousal***
 - Intrusive Memories
 - Dreams
 - Flashbacks
 - ***Upset/Reminded****
 - ***Physical Reactions****
 - ***Avoid Think/Talk/Feel****
 - Avoiding Activities
 - Memory Loss
 - Loss of Interest
 - Distant/Cut Off
 - Emotional Numbness
 - Future Cut Short
 - ***Trouble Falling Asleep****
 - ***Irritable/Anger****
 - ***Difficulty Concentrating****
 - ***On Guard****
 - ***Jumpy****

Pathophysiology of PTSD



The human amygdala (blue) and hippocampus (green).

Pathophysiology of PTSD

- Amygdala
 - A medial temporal lobe structure that appears to be involved in the assessment of threat-related stimuli.
 - Plays a crucial role in the process of fear conditioning.
 - High levels of catecholamine and cortisol released during stress enhances the functioning of the amygdala, promoting fear conditioning.
 - Evidence suggests that the amygdala may be hyperresponsive in individuals with PTSD.
 - Increased regional cerebral blood flow (rCBF) in the amygdala.

Pathophysiology of PTSD

- Medial Prefrontal Cortex
 - Involved in the extinction of fear conditioning and the retention of extinction.
 - There is an abnormal extinction of fear responses in PTSD.
 - Clinically, PTSD patients experience only minimal declines in fear responses over repeated presentations of traumatic reminders.
 - Medial prefrontal cortex is hyporesponsive in PTSD.
 - Decreased regional cerebral blood flow (rCBF) in the medial prefrontal cortex.

Pathophysiology of PTSD

- Hippocampus
 - Involved in memory processing.
 - The hippocampus plays an important role in connecting and organizing different aspects of a memory.
 - Short-term memory loss was associated with diminished right hippocampal volume in PTSD patients.
 - Severe stressors and high levels of stress-related hormones can be associated with memory impairment and hippocampus cell damage.

Neurobiology of PTSD

- Hypothalamic-Pituitary-Adrenal (HPA) Axis
 - Chronic HPA axis over-activation.
 - Low levels of cortisol output.
 - Enhanced negative feedback inhibition.
 - Due to a generally increased sensitivity of cortisol receptors.
 - Clinical presentation: chronic PTSD, those chronically stressed and fatigued.
- Sympathetic-Adrenal-Medullary (SAM) System
 - Increased SAM system activation is common in PTSD patients.
 - Increases heart rate, blood pressure, and startle responses.
 - Increases plasma catecholamine output (epinephrine & norepinephrine).

Neurochemical Alterations in PTSD

- Noradrenergic sensitization presumably lies at the basis of hyperarousal symptoms.
 - Exposure to trauma-related stimuli increases plasma concentrations of norepinephrine (NE), epinephrine, and their metabolites in those with PTSD.
 - Intravenous administration of the 2 receptor antagonist yohimbine, which results in increased NE activity, precipitates flashbacks and panic attacks in most PTSD patients.
- Opioid dysfunction may underlie some of the numbing symptoms seen in PTSD.
 - Conditioned and unconditioned stressors triggers the release of endogenous opioids leading to stress-induced analgesia that can be blocked by opioid antagonists.
- Cortisol mediated damage to the hippocampus may underpin problems in memory.
 - Neuronal damage to the hippocampus resulting in cognitive impairment.

Neurochemical Alterations in PTSD

- Serotonin depletion may be a factor in the development of depression and aggression.
 - Seems to play numerous roles in the central nervous system, including regulation of sleep, aggression, appetite, cardiovascular and respiratory activity, motor output, anxiety, mood, neuroendocrine secretion, and analgesia.
 - Evidence of serotonergic dysregulation in PTSD includes frequent symptoms of aggression, impulsivity, depression.
- Dopamine dysfunction may mediate symptoms of hypervigilance and paranoia.
 - Reduced activity in the dopamine system, in the prefrontal medial cortex, could lead to excessive and persistent fear of trauma-related cues, which causes hypervigilance and paranoia.

Treatment of PTSD

- Cognitive-Behavioral Therapy

- Cognitive therapy (first-line)

- Identify thoughts about the world and yourself that are making you feel afraid or upset.
 - Learn to replace these thoughts with more accurate and less distressing thoughts.
 - Helps you understand that the traumatic event you lived through was not your fault.

- Cognitive-Behavioral Therapy

- Exposure therapy (first-line)

- Goal is to have less fear about your memories.
 - Repeated confrontation of feared stimuli through imagination or in person.
 - Systematic desensitization is one form of exposure therapy where patient repeatedly imagines weak-anxiety-arousing stimulus until stimulus loses ability to evoke anxiety.

Treatment of PTSD

- Pharmacotherapy

- Selective Serotonin Reuptake Inhibitors
 - First-line of choice in the treatment of PTSD.
 - Sertraline and Paroxetine: effectively reduces symptom clusters of PTSD (hyperarousal, avoidance, intrusion).
- Adrenergic antagonists
 - Clonidine & propranolol decreases symptoms of anxiety, startle reactions, nightmares, agitation, hypervigilance.

- Pharmacotherapy

- Tricyclic antidepressants
 - Fallen out of favor as first-line treatment for PTSD.
 - More side effects than SSRIs.
- Monoamine Oxidase Inhibitors
 - Powerful antidepressant & antipanic agents.
 - But strict dietary, alcohol restrictions.
- Benzodiazepines
 - No positive findings for PTSD patients.

Traditional Chinese Medicine

TCM Etiology & Pathology

- Phlegm

- Tends to linger.
- Can cause heat.
- Effects the heart.

- Dampness

- Tends to linger.
- Has a downward action.
- Can cause heat.
- Effects the spleen.

- Heat/Fire

- Has a rising and ascending action.
- Effects the head and facial regions.
- Effects the heart.
- Impairs body fluids.

TCM Etiology & Pathology

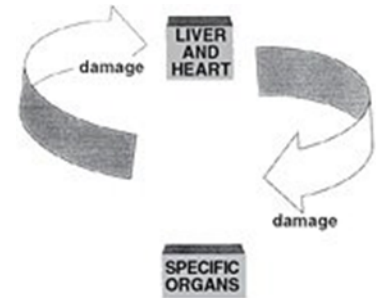
- Anger causes the qi to ascend: this refers to the tendency of anger to cause liver-fire or ascending liver yang.
- Joy causes the qi to scatter: this is in reference to manic hysteria, when a person has gone mad with extreme excitement. The classic TCM differentiation pattern is heart-fire.
- Sorrow causes the qi to disperse: this refers to the weakening effect sorrow has on lung qi and yin, causing it to break up or disperse from the body.
- Fear causes the energy to descend: this refers to the downward draining effect fear can have on the kidneys, as well as to the urinary incontinence extreme fear can cause.
- Fright differs from fear in that fear arises from thoughts within one's own mind, while fright comes from being suddenly shocked by something from the outside. This type of fright is said to cause abnormalities in the qi, in which the qi becomes chaotic and scatters. Fright affects the heart. Unchecked fright affects the kidney.
- Pensiveness/Thought causes the qi to become knotted: a description of the stagnation that can form as a result of the spleen's transporting and transforming functions becoming injured.
- Anxiety: when one feels anxiety, the qi is knotted and becomes stagnant. This in turn injures the spleen's transporting and transforming functions.

TCM Etiology & Pathology

- The soul is stored in the liver. The spirit is stored in the heart.
 - These two organs work together in the process of creating disordered emotional states.
 - Therefore, if an emotional condition is just beginning and uncomplicated, one can simply treat the heart and perhaps the liver.
- The Seven Affects
 - Damage to the Zang organs occurs from recurrent stimulations.
 - Joy: too much joy damages the heart.
 - Anger: prolonged anger also damages the liver.
 - Pensiveness/Thought: over-thinking damages the spleen.
 - Sorrow: excessive sorrow damages the lungs.
 - Fear: prolonged fear damages the kidneys.
 - Fright: damages the heart and the kidneys.
 - Anxiety: damages the heart and the spleen.

TCM Etiology & Pathology

- If an emotion has indeed caused damage to its target organ, it will come back and cause damage to the heart and liver as well, which can then give rise to new emotions.
- The whole process is therefore cyclical:
 - the heart and liver generate the emotion.
 - the emotion damages specific organs.
 - then it damages the heart and liver.



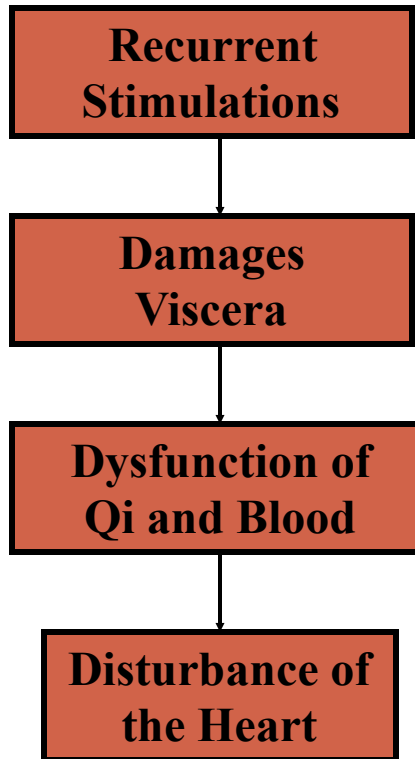
TCM Etiology & Pathology

- In Chinese Medicine, PTSD is caused by recurrent stimulations to the Zang organs, primarily from the seven affects: joy, pensiveness/thought, anxiety, sorrow, fear, fright, and anger.
- This recurrent stimulation can internally damage four main visceras, mainly the spleen, heart, kidney, and liver.
- The dysfunction of the visceras can then result in the disturbance of qi and blood.
- The liver and spleen have a reciprocal relationship where a dysfunction in one viscera can affect the other.
 - Excessive anger mainly affects the liver, causing qi stagnation and resulting in spleen qi vacuity.
 - Persistent liver qi stagnation leads to the accumulation of heat/fire that can damage yin fluids.
 - Heat/Fire tends to have an upward effect that results in the disturbance of the heart and disquiets the spirit.

TCM Etiology & Pathology

- Excessive worrying, over-thinking, and anxiety damages the heart and the spleen, causing heart-blood and spleen qi vacuity.
 - The heart lacks nourishment and the spirit will become disquieted.
- Excessive fear causes the qi mechanism to descend, damages the kidneys, resulting in kidney deficiency.
 - The kidneys cannot nourish the heart, and thus, causes disturbance of the shen.

TCM Pathogenesis



TCM Treatment

- Acute Phase:
 - Heat/Fire
 - Tends to rise and affect the facial regions.
 - Phlegm
 - Tends to linger.
 - Causes heat/fire and effects the heart.
- Chronic Phase:
 - Heat/Fire accumulation over long periods of time.
 - Impairs body fluids: leads to blood stasis, qi and blood deficiency, and yin deficiency.
 - Need to clear phlegm, eliminate heat/fire, nourish yin, tonify and move qi and blood.

TCM Treatment

- Acute Phase:
 - usually affects the heart and liver.
 - differentiation pattern of heart-fire, heart phlegm-fire, liver-heat, and liver qi stagnation leading to heat.
 - agitation, anger, palpitations, nightmares, frequent panic attacks, difficulty falling asleep.
- Chronic Phase:
 - usually affects the spleen, the heart, and the kidney.
 - differentiation pattern of qi and blood deficiency, blood stasis, and yin deficiency.
 - for these differentiation patterns, there are usually a persistence of the disease states.

TCM Differentiation

- Heart-fire (acute phase):
 - Symptoms: palpitations, mind races, thirst, difficulty falling asleep, short voidings of reddish urine, and constipation, red tongue body with thin yellow coating, rapid pulse.
 - Points: LI11, HT3, HT7, PC6, Yintang, Anmian, LIV2, REN15.
 - Herbs: Ye Jiao Teng, Lian Xin, Shi Gao, Zhi Zi, Long Gu, Dan Zhu Ye.
- Liver-heat (acute phase):
 - Symptoms: outbursts of anger, dream-disturbed sleep, irritability, stress & anxiety, thirst, red tongue with thin yellow coating, rapid pulse.
 - Points: LI11, LIV2, LIV3, LIV13, Yintang, HT3, HT7, PC6, Anmian.
 - Herbs: Long Dan Cao, He Huan Pi, Huang Qin, Zhi Zi, Chai Hu.

TCM Differentiation

- Heart phlegm-fire (acute phase):
 - Symptoms: mental confusion, lack of mental clarity, palpitations, restlessness, incoherent speech, rash behavior, tendency towards hitting a/or scolding people, uncontrollable laughter a/or crying, yellow urine, red tongue body with thin yellow coating, slippery, and rapid or wiry pulse.
 - Points: HT3, HT7, PC6, REN15, ST40, Yintang, Anmian, LI11, LIV2.
 - Herbs: Huang Lian, Huang Qin, Zhi Shi, Ban Xia, Zhu Ru, Fu Shen, Yuan Zhi, Dan Nan Xing, Chuan Xiong.
- Liver qi stagnation leading into heat (acute phase):
 - Symptoms: poor appetite, depression, irritability, anger, purplish, red tongue with thin white coating, wiry pulse.
 - Points: SP6, PC6, HT7, UB18, LIV2, LIV3, LIV13, LI11, Yintang.
 - Herbs: Chai Hu, Bai Shao, Fu Ling, Bai Zhu, Mu Dan Pi, Zhi Zi, Dang Gui, Sheng Jiang, Gan Cao, Bo He.

TCM Differentiation

- Heart blood deficiency with spleen qi deficiency (chronic phase):
 - Symptoms: anxiety, insomnia, profuse dreams, impaired memory, lassitude of the spirit, lack of strength in the limbs, loose stools, shallow facial complexion, excessive worry, fatigue, pale tongue with thin, white coating, thin, weak pulse.
 - Points: HT7, PC6, SP6, ST36, UB15, UB20, DU20, SP10, LIV8.
 - Herbs: Fu Shen, Huang Qi, Yuan Zhi, Long Yan Rou, Bai Zhu, Dang Gui, Suan Zao Ren, Mu Xiang, Ren Shen.
- Phlegm accumulation leading to yin deficiency (chronic phase):
 - Symptoms: mental exhaustion, fear and dread, agitation, tinnitus, dizziness, insomnia, heart palpitations, night sweats, low back and knee soreness, insomnia, dry throat, and thirst, dry and red tongue body with thin coating or no coating, thready and slippery pulse.
 - Points: KID3, KID7, UB15, UB23, ST40, HT7, PC6, LIV8, SP10.
 - Herbs: Xuan Shen, Yuan Zhi, Bai Zi Ren, Sheng Di Huang, Zhi Mu, Gua Lou, Fu Ling, Long Gu, Huang Bai.

TCM Differentiation

- Heart qi and blood stasis (chronic phase):
 - Symptoms: anxiety, insomnia, profuse dreams, impaired memory, lassitude of the spirit, lack of strength in the limbs, chest pain, loose stools, shallow facial complexion, excessive worry, fatigue, pale, purplish tongue with thin, white coating, thin, weak, choppy pulse.
 - Points: HT7, PC6, LIV3, LI4, REN17, REN15, UB14, UB15.
 - Herbs: Dan Shen, Dang Gui, Chuan Xiong, Chi Shao, Tao Ren, Hong Hua, Chai Hu, Zhi Ke, Xiang Fu, Yu Jin, Long Chi, Yuan Zhi, Hu Po.

Treatment Protocol

Treatment Protocol

- First, unblock the sympathetic system.
- Next, unblock the paired channels.
- Finally, utilize the PTSD TCM Differentiation Patterns for the remaining residual symptoms.
- Optional: balance the neurochemical levels to help further solidify the treatments.

Treatment Protocol

- First, unblock the sympathetic system:
 - Acupuncture point prescription combined front and back treatments to avoid point fatigue (tolerance due to frequent use).
 - Front treatment included acupuncture points bilaterally at ST36 (tonify), SP6 (tonify), LI4 (reduce), LIV2 (reduce), GB15 (reduce), UB2 (reduce), KID3 (tonify), and one point at Yintang (reduce), DU20 (reduce), and DU24 (reduce).
 - Back treatment included acupoints at GB21 (reduce), UB13 (tonify), UB15 (reduce), UB18 (reduce), UB20 (tonify), UB23 (tonify) bilaterally.

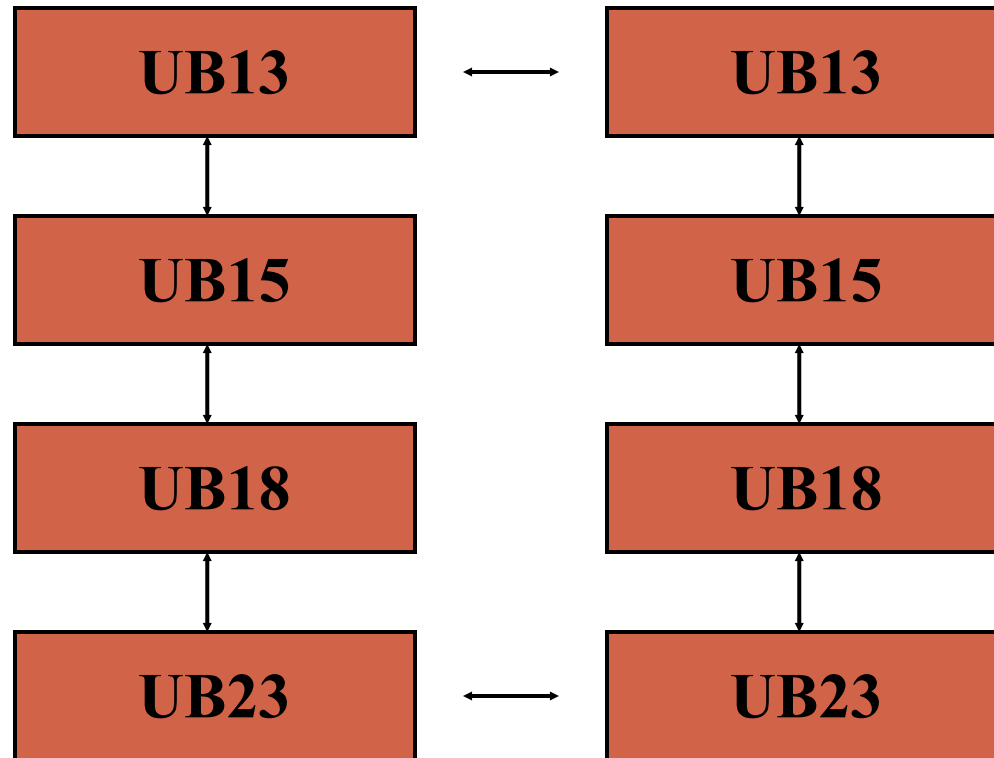
Treatment Protocol

- Five points on the outer UB line can also be added or alternated with the UB points in the first line. Their names clearly relate to the mental-spiritual aspect of the relevant Yin organ:
 - Lung Shu UB 13: Po Corporeal Soul.
UB 42: Window of the Corporeal Soul (for grief/sadness).
 - Heart Shu UB 15: Shen Spirit.
UB 44: Hall of the Shen (for anxiety/insomnia).
 - Liver Shu UB 18: Hun Ethereal Soul.
UB 47: The door to the Ethereal Soul (for anger/depression).
 - Spleen Shu UB 20: Yi Intellect.
UB 49: Hut of the Intellect (for overthinking/worry).
 - Kidney Shu UB 23: Zhi Will-Power.
UB 52: Room of the Will-Power (for fear/hopelessness).

Treatment Protocol

- Ear press needles were also placed at LU, LIV, KID, Shenmen, and sympathetic in either left or right ear. Patients were asked to massage each point at least 10 minutes per day for one week.
- Use Moving Cupping for the last 5 minutes.
- Use this protocol for the first three to five treatments.

Treatment Protocol



Treatment Protocol

- Main Channel Blocks: specific paired channels need to be unblocked after you have utilized the sympathetic treatment protocol. Patients usually fall under one or two of the paired channels listed below.
 - Spleen & Heart:
 - Symptoms: obsessive thoughts, overthinking, frequent panic attacks, insomnia, palpitations, feels tightness in the chest region.
 - Points: SP1 (bleed), SP6, HT7, HT3, HT1 (bleed).
 - Small Intestine & Urinary Bladder:
 - Symptoms: patients usually has pain and stiffness throughout the back and neck regions, holds tension in the back and neck.
 - Points: SI3, UB60, UB62.

Treatment Protocol

- Kidney & Pericardium:
 - Symptoms: depressed, tendency to gain weight, lack of mental or physical energy, highly anxious, tends to feel hopeless.
 - Points: KID3, PC7, PC6.
- Triple Burner & Gallbladder:
 - Symptoms: problems making decisions, frequent temporal headaches, tinnitus, pain in the trapezius.
 - Points: SJ1 (bleed), SJ5, GB42.
- Liver & Lung:
 - Symptoms: patients usually cannot let go of past events and/or losses, depressed, explosive anger, experience extended periods grief, tears up easily.
 - Points: LIV2, LIV13 (subcutaneous), LU1 (subcutaneous).

Treatment Protocol

- Utilize the PTSD TCM Differentiation Patterns for the remaining residual symptoms.

Treatment Protocol

- Optional: balance the neurochemical levels to help further solidify the treatments.
- In terms of balancing the neurochemical levels, please refer to the book listed below to learn more about the protocols:
 - Ross, Julia. The Mood Cure. Penguin Books: New York, NY.

Treatment Protocol

- Low Serotonin
 - Indication: irritable, anger, often anxious or worried, depression, panic attacks, suicidal thoughts, tendency to be negative, self-critical, obsessive behaviors, racing thoughts, fearful, nervous about heights, flying, enclosed spaces, crowds.
 - Points: UB2, GB15, Yintang, DU20, DU24.
 - Recommend Serotone (Apex Energetics) or 5-HTP (Integrative Therapeutics).
 - Suggest Compounded Formulas (i.e., Mayway Dispensary):
 - Liver Channel Herbs: chai hu, yu jin, zhi ke, dan shen, bai shao.
 - ❖ With Heart Shen and Liver Yang Anchoring Herbs: long gu, mu li, shi chang pu.

Treatment Protocol

- Low Norepinephrine or Thyroid
 - Indication: often feel depressed, low mental and physical energy, difficulty with concentration, tendency to gain weight, no motivation, consumes coffee, cocaine, methamphetamines to stay awake.
 - Points: SP6, ST36, DU20, REN6, KID3, KID6, HT7, Yintang, UB15, UB23.
 - Recommend Tyrosine Complex (Integrative Therapeutics).
 - Suggest Kidney Yang Deficiency Formulas: Jin Gui Shen Qi Wan or You Gui Wan.

Treatment Protocol

- Low GABA or Cortisol (chronic phase)
 - Indication: has trouble relaxing, extremely fatigued, low blood pressure and glucose levels, feels overworked and overwhelmed, easily upset, it takes 30 minutes or longer to feel awake in the morning, salt cravings, uses tobacco, alcohol, food, or drugs to relax and calm down.
 - Points: SP6, ST36, DU20, Yintang, HT7, KID3, KID6, UB14, UB15, UB20, UB23, LIV8, SP10.
 - Recommend GABA (Integrative Therapeutics) or Anxiety Control (Metabolic Maintenance) or Adrenal Response (Innate Response) with Adaptocrine (Apex Energetics).
 - Suggest Tonifying Qi and Blood with Yang Deficiency Formulas: Shi Quan Da Bu Tang.
 - With Tonifying Heart Formulas: An Shen Bu Xin Wan.

Treatment Protocol

- High Cortisol (acute phase)
 - Indication: has trouble relaxing, getting to sleep, feels overworked and overwhelmed, easily upset, high blood pressure and glucose levels, has tension headaches, neck and back pain from muscular hypertonicity, weight gain typically around the abdominal region, uses tobacco, alcohol, food, or drugs to relax and calm down.
 - Points: UB13, UB14, UB15, UB18, UB47 (LIV), UB20, UB23, UB43 (PC), UB44 (HT), DU14, GB20, GB21, HT3, HT7, PC6.
 - Recommend Cortisol Manager (Integrative Therapeutics) with Stress Essentials (Integrative Therapeutics) or MetaCalm (Metabolic Maintenance).
 - Suggest Liver Stagnation with Rising Liver Yang Formulas: Chai Hu Long Gu Mu Li Tang.
 - Or Stagnation Leading to Liver Fire Formulas: Long Dan Xie Gan Tang.

Treatment Protocol

- Low Endorphin
 - Indication: very sensitive to emotional and physical pain, been through a great deal of physical or emotional pain, tears up easily, avoids dealing with painful issues, has difficulty grieving, gravitates towards certain foods that seems to provide comfort (chocolate, marijuana, tobacco, alcohol).
 - Points: UB13, UB14, UB15, UB42 (LU), DU14, GB21, HT3, HT7, LU1, REN15, REN17, Gan Wang (Liver King).
 - Recommend D, L-Phenylalanine (Metabolic Maintenance).
 - Suggest Heart and Lung Stagnation Formulas: Ban Xia Hu Po Tang.

Internal & External Dragon

- If you find that the patient is not responding to the treatments and if you feel that they are not quite connected with themselves, then utilize the Internal & External Dragon points first before proceeding to the protocols listed.
- Internal and External Dragon points typically work on patients where their sympathetic system is in a state of shock and on patients who have experienced an extreme trauma.
 - Patients may be experiencing a lack of control over aspects of their body, mind, or spirit.
 - They usually cannot stop moving, sweats profusely, feels tightness in their chest, and they have a rapid heart rate.
- First, needle the Internal Dragon points and then the External Dragon points.

Internal & External Dragon

- Internal Dragon Points:

- REN15
- ST25
- ST32
- ST41

- External Dragon Points:

- DU20
- UB11
- UB 23
- UB61

PTSD Case Study

Case History

- Background: 35-year-old male reported depressed mood and poor attitude for 4 months. Described the many exposures to traumatic events starting with the Oklahoma City federal building bombings, the 9/11 Twin Towers, Hurricane Katrina, and combat in Iraq.
- Psychological symptoms: recurrent, persistent thoughts, and images of traumatic events, attempts to avoid and suppress thoughts and images, obsessional behaviors to rid self of guilt and anxiety, recurrent distressing nightmares, avoidance of situations reminding him of events, feelings of detachment, sleep disturbance, irritability and anger, hypervigilance, and exaggerated startle responses.
- General appearance: in acute distress, oriented to time, place, and person, patient did not appear uncomfortable.
- Current medications: prazosin, hydroxyzine, zolpidem, citalopram, sumatriptin, Phenergan (promethazine).

Case Study

- 8th treatment on 7/21/08
- Subjective: has had no migraines for three weeks since acupuncture treatment. Sleep has improved. Has no left arm numbness or pain in HT meridian. Still has nightmares. Panic attacks and anxiety are much better. Depression has improved. Left shoulder pain with rotating of neck that is located on top of trapezius. Pain scale 3/10. Left treatment with no pain and less anger.
- Objective: frustration, anxiety, and anger has improved. Thought content revealed no impairment.
- Pulse/Tongue: (L)- wiry, (R)- slippery; slight purple, swollen, thin, white coating, red tip throughout the upper-half of the tongue.
- TCM Diagnosis: PTSD with heart shen disturbance and liver stagnation.
- Points: standard PTSD treatment protocol. Cleared the Spleen/Heart and the Liver/Lung channels. Aishi points for left shoulder pain.

PTSD & Traumatic Brain Injury Case Study

Traumatic Brain Injury

- Definition: Traumatic Brain Injury (TBI) is defined as a blow or jolt to the head or a penetrating head injury that disrupts the function of the brain. Concussions (closed head injuries) are a type of TBI. TBI can range from mild TBI, where there was a brief change in mental status or consciousness to severe TBI, where there was an extended period of unconsciousness or amnesia.

Epidemiology

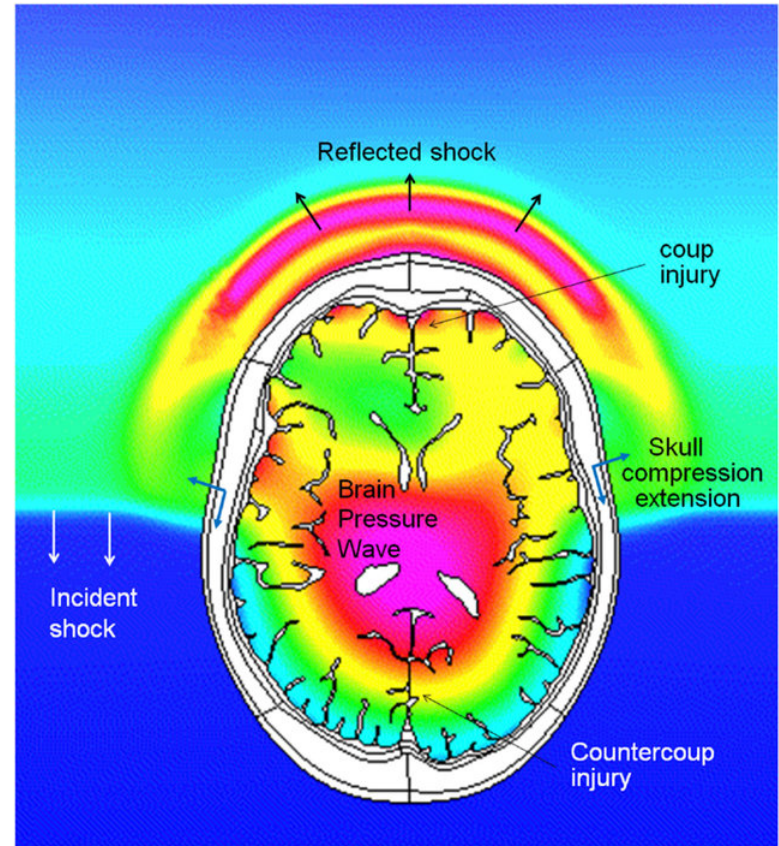
- Prevalence of TBI in the 1.64 million service members who have been deployed to Iraq and Afghanistan, approximately 320,000 experienced a probable TBI.
- About 1,800 U.S. troops, according to the Department of Veterans Affairs, are now suffering from traumatic brain injuries (TBIs) caused by penetrating wounds.
- At least 30 percent of all veterans who've engaged in active combat for four months or longer in Iraq and Afghanistan are at risk of potentially disabling neurological disorders from the blast waves of IEDs and mortars.
- Two-thirds of all soldiers wounded in Iraq who don't immediately return to duty have traumatic brain injuries.

Diagnosis and Classification

- Two conditions must be met to diagnose a history of TBI:
 - there must have been an injury event.
 - the injury event must have resulted in the person experiencing an alteration of consciousness (ranging from dazed and confused to loss of consciousness).
- Classification of TBI:
 - mild TBI is one that causes loss of consciousness lasting less than 1 hour or amnesia lasting less than 24 hours.
 - moderate TBI produces loss of consciousness lasting between 1 and 24 hours or post-traumatic amnesia for 1 to 7 days.
 - severe TBI produces a loss of consciousness for more than 24 hours or post-traumatic amnesia for more than 1 week.

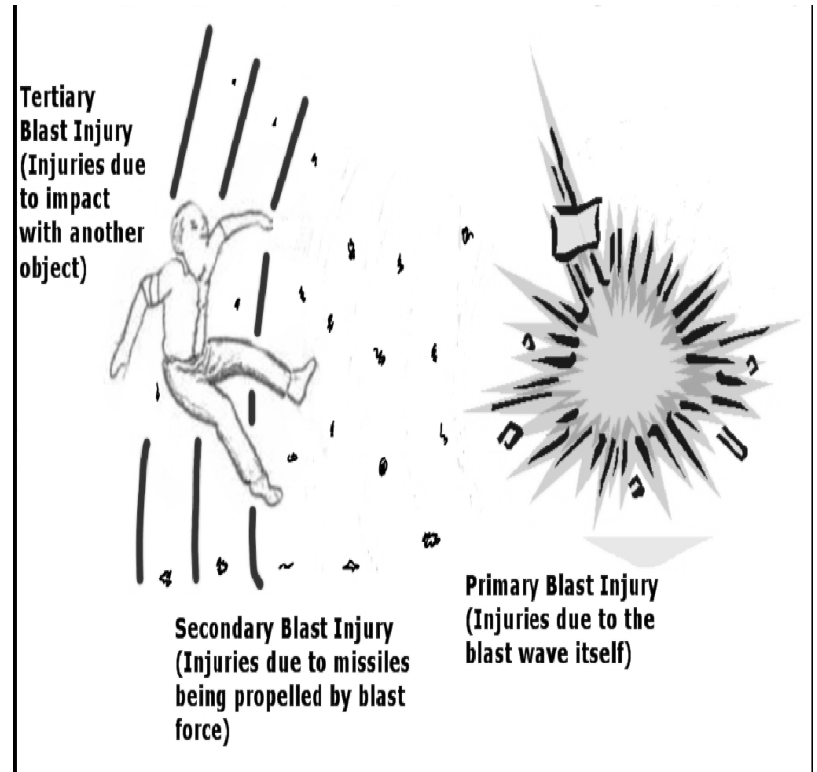
Etiology

- Majority of the causes of TBI are a result of blast waves from Improvised Explosive Devices (IED).
- The detonation of an IED can generate a blast wave of high pressure that spreads out at 1,600 feet per second from the point of explosion and travels hundreds of yards.
- The lethal blast wave is a two-part assault that rattles the brain against the skull.



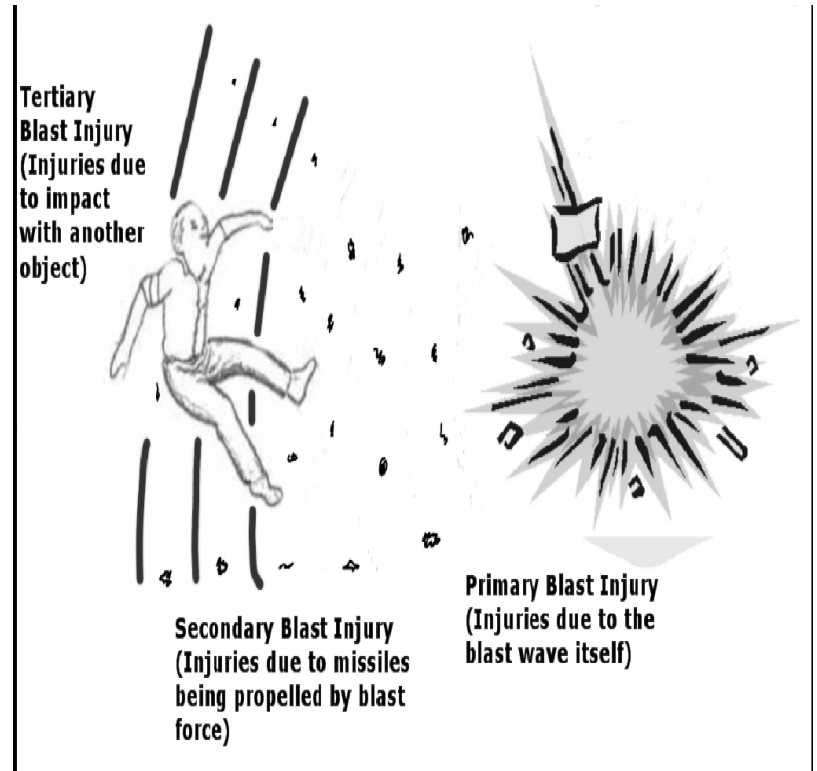
Pathophysiology

- The initial shock wave of very high pressure is followed closely by the "secondary wind": a huge volume of displaced air flooding back into the area, again under high pressure.
- These rapid pressure shifts can injure the brain directly, producing concussion or contusion, cerebral swelling.
- Air emboli can also form in blood vessels and travel to the brain, causing cerebral infarcts.



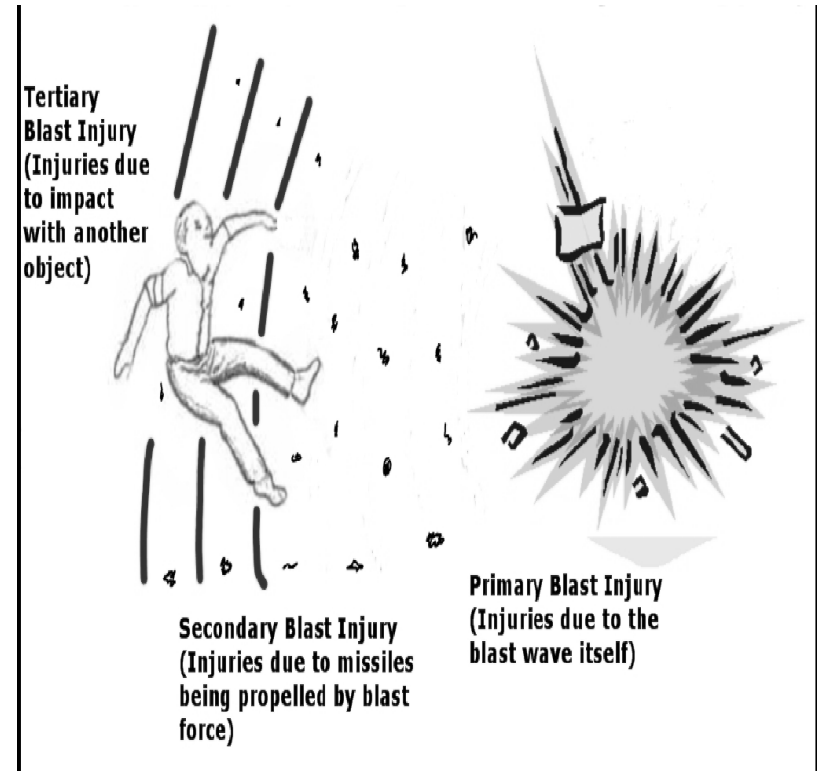
Pathophysiology

- Rapid acceleration, deceleration, or rotational forces cause the brain to elongate and deform, stretching individual cells, blood vessels, altering membrane permeability.
- The integrity of the microvasculature is compromised with disruption of the blood-brain barrier and focal cortical hypoperfusion.
- Axons are especially vulnerable to shear injury given their relatively long length.



Pathophysiology

- Acceleration-deceleration forces produce alterations in sodium channels with subsequent ionic dysregulation, producing an influx of calcium and an efflux of potassium, acceleration of the cellular sodium-potassium (Na^+/K^+) pump to maintain membrane homeostasis.



Symptoms of TBI

- Headaches
- Sleep disturbances
- Sensitivity to light and noise
- Disturbances in attention, memory, and language
- Delayed reaction time with problem solving
- Mood changes
- Depression
- Anxiety
- Impulsiveness
- Emotional outbursts

PTSD and mTBI Co-Morbidity

PTSD

- Insomnia
- Memory Problems
- Poor concentration
- Fatigue
- Depression
- Anxiety
- Irritability
- Emotional lability

Differences

- Re-experiencing
- Avoidance
- Emotional Numbing
- Hypervigilance
- Exaggerated startle response

Post Concussion Syndrome (wks, mths, yrs after mTBI)

- Insomnia
- Memory Problems
- Poor concentration
- Fatigue
- Depression
- Anxiety
- Irritability
- Emotional lability

Differences

- Headache
- Dizziness, Nausea, Vomiting
- Noise/light intolerance
- Blurred vision

Case History

- Background: 30-year-old male reported his vehicle was hit by an anti-tank mine. He denies loss of consciousness but reports he was dazed and confused for a few minutes. He has daily HA's that gets to a 10 out of 10. HA's causes nausea. His balance is off, has mood swings. Stutters frequently now and cannot concentrate.
- Psychological symptoms: recurrent, persistent thoughts, and images of traumatic events, attempts to avoid and suppress thoughts and images, recurrent distressing nightmares, avoidance of situations reminding him of events, feelings of detachment, sleep disturbance, irritability and anger, hypervigilance, and exaggerated startle responses.
- Neurological symptoms: speech was abnormal, some slow word findings, cranial nerves intact, motor exam demonstrated no dysfunction, no coordination/cerebellum abnormalities were noted, normal balance and stance, slightly wobbly tandem gait.
- Current medications: Elavil (amitriptyline), Prilosec (omeprazole), Phenergan, Percocet, Seroquel, sertraline.

Case Study

- 1st treatment on 1/15/09
- Subjective: constant HA's currently at a 8 out of 10. Mostly on the temples today. SM has high anxiety and does not like public places. SM also states that he gets agitated easily. Endorses nausea.
- Objective: HA's are located throughout the whole head. SM describes the quality as throbbing, aching pain that lasts 30-45 minutes with a frequency of once per day. Pain scale is an average of 6-8/10, worse 8-9/10 (once a week). Additional symptoms include: photophobia, phonophobia.
- Pulse/Tongue: (L)- wiry, (R)- wiry; red, thin, white coating, red tip with red prickles throughout the upper-half of the tongue.
- TCM Diagnosis: PTSD with heart shen disturbance and liver stagnation, mTBI with liver yang hyperactivity.
- Points: standard PTSD treatment protocol. Cleared the Spleen/Heart and the Liver/Lung channels. Electroacupuncture on DU20 (black clip), DU24 (red clip) on "mixed" pulse mode. Battlefield Acupuncture for mTBI headaches.

Case Study

- 8th treatment on 2/05/09
- Subjective: HA's are now at a 2 out of 10. Anxiety and anger levels are under control now. Has had no panic attacks. HA's are less frequent and less intense.
- Objective: HA's are located mainly on the temples. SM describes the quality as throbbing, aching pain that lasts 30-45 minutes with a frequency of twice per week now. Pain scale is an average of 2/10, never reached a 10/10. Decreased photophobia, phonophobia.
- Pulse/Tongue: (L)- wiry, (R)- wiry; red, thin, white coating, red tip with red prickles throughout the upper-half of the tongue.
- TCM Diagnosis: PTSD with heart shen disturbance and liver stagnation, mTBI with liver yang hyperactivity.
- Points: standard PTSD treatment protocol. Cleared the Spleen/Heart and the Liver/Lung channels. Electroacupuncture on DU20 (black clip), DU24 (red clip) on "mixed" pulse mode. Battlefield Acupuncture for mTBI headaches.

PTSD & Gulf War Illness Case Study

Epidemiology

- Roughly 1 in 4 of the 697,000 veterans who served in the first Gulf War are afflicted with the disorder.
- U.S. and UK troops exhibited the highest prevalence of Gulf War Illness as compared to the other nations.
- 23% of U.S. and UK troops diagnosed with Gulf War Syndrome have symptoms of fatigue.
- 18% of U.S. and UK troops have symptoms of muscle and joint pain.
- 17% have symptoms of migraines, and 32% have impaired cognition.

Etiology

- Severity of symptoms is highly correlated with two known exposures:
 - use of the medication pyridostigmine bromide (PB).
 - PB was given as a prophylaxis treatment for soman nerve agent poisoning.
 - use of pesticides.
 - GW personnel were often exposed to high levels of a variety of pesticides and insect repellants in theater.
 - Researchers have also recently narrowed impaired neuropsychological function to individuals exposed to the destruction of the Khamisiyah weapons depot where large quantities of the neurotoxin sarin was stored.

Neurobiology

- In a recent biomarker study at Duke University (Abou-Donia et al., 2017), researchers found statistical significant fold increases of serum autoantibodies in GWI veterans relative to controls:
 - Increased autoantibodies against neurofilament proteins, tau, CaMKII and tubulin are indicative of axonal degeneration.
 - Increased autoantibodies against MAG and/or MBP suggest demyelination.
 - Increased autoantibodies against MAP-2 suggest dendritic degeneration.
 - Increased autoantibodies against GFAP suggest astrogliosis.
- These results confirm the continuing presence of neuronal injury/gliosis in these veterans and are in agreement with the recent reports indicating that 25 years after the war, the health of veterans with GWI may be getting worse and are not improving.

References

1. Abou-Donia MB, Conboy LA, Kokkotou E, et al. Screening for novel central nervous system biomarkers in veterans with Gulf War Illness. *Neurotoxicol Teratol* 2017 May;61:36-46.

Symptoms

- Chronic fatigue
- Joint and muscle pain (fibromyalgia)
- Insomnia
- Mood and cognitive symptoms (depression, memory deficits)
- Anxiety
- Irritability

Case Definition

- Cluster A: Fatigability
 - Persistent fatigue 24 hours or more after exertion
- Cluster B: Mood and Cognition
 - Feeling depressed
 - Feeling irritable
 - Difficulty concentrating or thinking
 - Feeling worried, anxious
 - Problems getting to sleep
- Cluster C: Musculoskeletal
 - Joint or muscle pain

Case History

- Background: 39-year-old male displaying GWI symptoms of fibromyalgia, anger, depression, chronic fatigue, anxiety, headaches. Displays PTSD symptoms as well.
- Psychological symptoms: recurrent, persistent thoughts, and images of traumatic events, attempts to avoid and suppress thoughts and images, recurrent distressing nightmares, avoidance of situations reminding him of events, feelings of detachment, sleep disturbance, irritability and anger.
- Neurological symptoms: speech was normal, cranial nerves intact, motor exam demonstrated no dysfunction, no coordination/cerebellum abnormalities were noted, normal balance, gait and stance were normal.
- Current medications: Wellbutrin (bupropion), sertraline, esomeprazole magnesium trihydrate, tramadol, Flovent (fluticasone propionate), loratadine.

Case Study

- 10th treatment on 5/28/09
- Subjective: constant body pain currently at a 8 out of 10. HA's mostly located on the temples. SM has high anxiety and does not like public places. SM also states that he gets agitated easily and is constantly fatigued. Additional symptoms include: GI problems (IBS), dizziness at times, nausea.
- Objective: body pains are located throughout the whole body. SM describes the quality as dull, aching pain that lasts 30-45 minutes with a frequency of once per day. Pain scale is an average of 6-8/10, worse 8-9/10 (once a week). Abdomen non-tender with palpation, not distended. Dyspnea, fatigue with physical exertion.
- Pulse/Tongue: (L)- wiry, slippery (R)- wiry, slippery; dark, red, thick, yellow coating.
- TCM Diagnosis: PTSD and Gulf War Syndrome with heart shen disturbance and spleen qi deficiency with damp-heat.
- Points: standard PTSD treatment protocol. Cleared the Spleen/Heart channel. Electroacupuncture at SP9 (black clip), SP6 (red clip) on "mixed" pulse mode. bilaterally. Acupuncture aishi points for headaches and fibromyalgia pain.

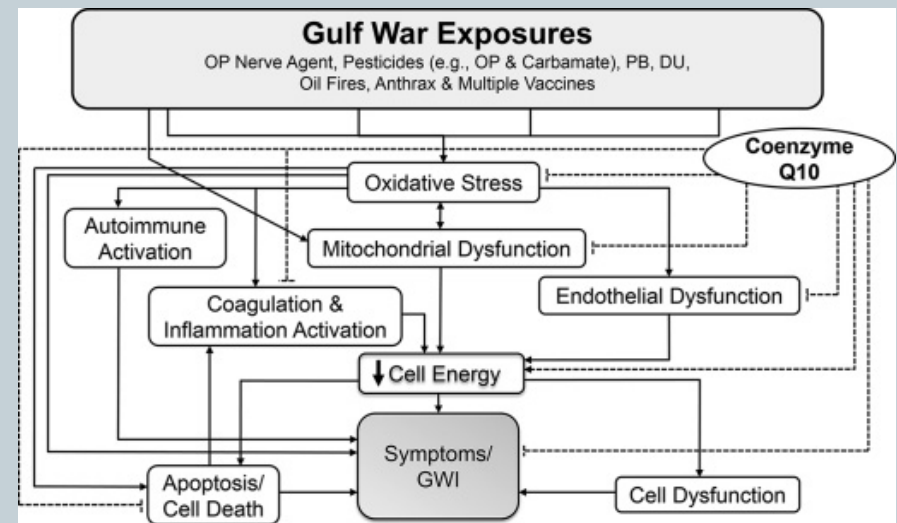
Case Study

- 18th treatment on 6/11/09
- Subjective: patient stated that his overall body pain has decreased to a 2 out of 10. Anxiety levels have decreased. Patient also stated that he has taken about 50% less pain medication since starting acupuncture treatments. Sleep and anxiety has improved.
- Objective: body pain are located throughout the whole body. SM describes the quality as dull, aching pain that lasts 30-45 minutes. Pain is currently less frequent and intense. Dyspnea, fatigue with physical exertion improved.
- Pulse/Tongue: (L)- wiry, slippery (R)- wiry, slippery; dark, red, thick, yellow coating.
- TCM Diagnosis: PTSD and Gulf War Illness with heart shen disturbance and spleen qi deficiency with damp-heat.
- Points: standard PTSD treatment protocol. Cleared the Spleen/Heart channel. Electroacupuncture at SP9 (black clip), SP6 (red clip) on “mixed” pulse mode. bilaterally. Acupuncture aishi points for headaches and fibromyalgia pain.

Novel Treatment Approach

- Research: CoQ10 for GWI
 - Gulf War exposures cause:
 - neuronal cell injury via oxidative stress (i.e., reactive oxygen species).
 - causes mitochondrial dysfunction leading to ↓ cell energy, resulting in symptoms of GWI.
 - CoQ10 (100 mg)/day for 3.5 ± 0.5 months resulted in significant improvement in physical function and GWI symptoms vs. CoQ10 (300 mg) vs. placebo.
 - Novel Treatment Approach: acupuncture + CoQ10 (100 mg).

Proposed Central Role for Oxidative Stress and Mitochondrial Dysfunction



References

1. Golomb BA, Allison M, Koperski S, et al. Coenzyme Q10 benefits symptoms in Gulf War veterans: results of a randomized double-blind study. *Neural Comput* 2014 Nov;26(11):2594-651.

Integrative PTSD Outpatient Programs

Ft. Bliss Restoration & Resilience Center



- 1940's barracks
- 6,000 square feet

The Warrior Lounge



Ft. Hood: Warrior Combat Stress Reset Program



Navy and Marine Corps: Camp Pendleton



NAVY AND MARINE CORPS COMBAT & OPERATIONAL STRESS CONFERENCE 2010: "TAKING ACTION, MEASURING RESULTS"

Integrative PTSD Outpatient Program

- Standard Behavioral Health Approach:
 - medicate the central nervous system leading to changes in cognition, emotion, and behavior.
 - psychotherapy to help cope with symptoms.
- Alternative Medical Effect:
 - intervene physiologically to reduce arousal (free qi and energy) leading to changes in cognition, emotion, and behavior.
 - cumulative effect leading to physiological changes (i.e., melatonin, cortisol, fMRI neuronal signal reduction in the limbic system) and reduction in hyperarousal symptoms.

Integrative PTSD Outpatient Program

- Agoraphobia/Claustrophobia Reduction Track
 - Goal: increase soldier's tolerance for public places, crowds, enclosed areas.
 - Interventions: therapeutic outings to challenging public places (malls, bowling alley, Carlsbad Caverns).

Integrative PTSD Outpatient Program

- Cognitive Behavior Track
 - Goal: reduce soldier's cognitive distortions and errors related to combat experience.
 - Interventions: individual and group psychotherapy with CBT interventions.

Integrative PTSD Outpatient Program

- Cognitive Rehabilitation Track
 - Goal: reduce soldier's hyperarousal to increase ability to focus and attend, and improve memory functioning (encoding and retrieval) through hippocampal rehabilitation.
 - Interventions:
 - Hyperarousal Reduction: acupuncture, biofeedback, Reiki, medical massage, daily power walk, daily physical training, water polo, and movement therapies (tai-chi, qi-gong, yoga).
 - Improvement in Memory Functioning: Brain Train (computer-based cognitive rehabilitation program).

Integrative PTSD Outpatient Program

- Emotional/Grief Work Track
 - Goal: reduce soldier's negative emotional valence attached to distressing combat memories/images.
 - Interventions: individual and group psychotherapy, expressive (art) therapy focused on emotional processing and grief work.

Integrative PTSD Outpatient Program

- Military Reintegration Track
 - Goal: increase soldier's ability to tolerate combat-simulated environments and activities.
 - Interventions: Engagement Skills Trainer (EST) 2000 (indoor simulated firing range), brief group missions (day-long Habitat for Humanity mission), planned: live range firing, shoot houses, IED lane, week-long Habitat for Humanity mission.

Integrative PTSD Outpatient Program

- Physical Arousal Reduction Track
 - Goal: reduce soldier's physical agitation, startle response, muscular hypertonicity.
 - Interventions: acupuncture, biofeedback, Reiki, medical massage, daily power walk, daily physical training, water polo, and movement therapies (tai-chi, qi-gong, yoga).

Integrative PTSD Outpatient Program

- Re-Socialization Track
 - Goal: increase soldier's tolerance for/ability to engage in social interaction with comrades, friends, family.
 - Interventions: recreation room at Center, Therapeutic Outings (planetarium, golf, bumper cars, water polo, social events at Center).

Integrative PTSD Outpatient Program

- Spiritual (Meta-Cognitive) Healing Track
 - Goal: help soldiers reconstitute a cohesive, reliable, robust self, reconceptualize a "meaning" for their lives, work through issues of death & dying, and (if appropriate) develop a more mature concept of deity that can be 'squared' with their combat experience.
 - Interventions: individual/group psychotherapy, counseling by facility chaplain, cross-cultural group experiences (Native American sweat lodge, Apache warrior healing ritual, etc.).

Case Study Exercise

Case History

- Background: 31-year-old female reported depressed mood and high anxiety with agitation for the past 6 months. Diagnosed with PTSD and mild Traumatic Brain Injury.
- Psychological symptoms: recurrent, persistent thoughts, and images of traumatic events, attempts to avoid and suppress thoughts and images, recurrent distressing nightmares, avoidance of situations reminding him of events, feelings of detachment, sleep disturbance, irritability and anger, and exaggerated startle responses.
- Physical symptoms: patient has headaches (R) at upper third of the scalp-motor area and scalp- sensory area. Has numbness on the lower left extremity. Has muscular tension at the trapezius and upper back.
- General appearance: in no acute distress, oriented to time, place, and person, patient did not appear uncomfortable.
- Current medication: trazadone (insomnia), prazosin (nightmares), clonazepam (anxiety), topiramate (HA's), citalopram (depression).
- Pulse/Tongue: (L)- rapid, slippery, wiry (R)- rapid, slippery, wiry; slight purple, swollen, thin, white coating, with red tip.

Integrative Approach

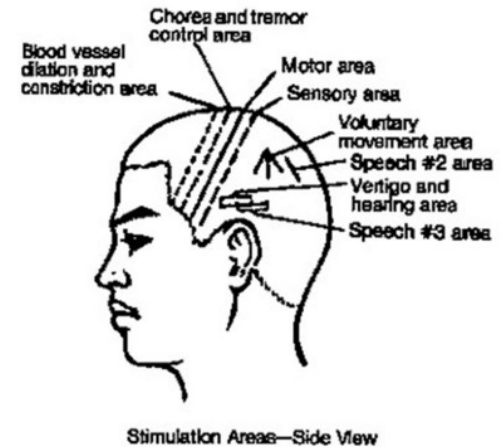
- What is happening with this patient?
- What is the acupuncture treatment plan?
 - What meridians are affected?
 - What is the point prescription?
- What methods can we use?
- What is the integrative medicine treatment plan?

Integrative Approach

- What is happening with this patient?
 - How do you treat PTSD with Chinese Medicine?
 - How do you treat mild TBI with Chinese Medicine?
- What is the acupuncture treatment plan?
 - Reduce anxiety, hyperarousal, HA's, depression, and improve sleep.
 - What is the duration of the treatment?

Integrative Approach

- What meridians are affected?
 - HT?
 - LIV?
 - KID?
 - SP?
 - GB?
- What is the point prescription?
 - Scalp- Motor, Scalp- Sensory, GB21, HT7, PC6, SP6, ST36, UB15, UB16, UB20, UB23, LIV3, Yintang.



Integrative Approach

- What methods can we use?
 - Cognitive behavioral therapy
 - Pharmacotherapy
 - Acupuncture
 - Medical massage
 - Neurofeedback
 - Supplements

Integrative Approach

- What is the integrative medicine treatment plan?
 - Acupuncture and neurofeedback
 - Acupuncture vs. pharmacotherapy vs. supplements
 - Acupuncture and cognitive behavioral therapy
 - Acupuncture and medical massage
 - Acupuncture
 - Auriculotherapy
 - Scalp Acupuncture
 - Electroacupuncture
 - Battlefield Acupuncture

NADA Protocol

NADA Protocol

- A method that combines traditional filiform needling methods in a group setting.
- Treatment Protocol
 - Treatments occur in a group setting and occurs 3 times per week.
 - Treatments lasts 30 to 45 minutes.
 - Uses the 5 needle ear technique insertion into the sympathetic, Shenmen, kidney, liver, and lung auricular points.
 - Treats anger, anxiety, depression, insomnia, substance abuse, and smoking cessation.
- Effective when used in combination with standard mental health protocols (i.e., cognitive-behavioral therapy).

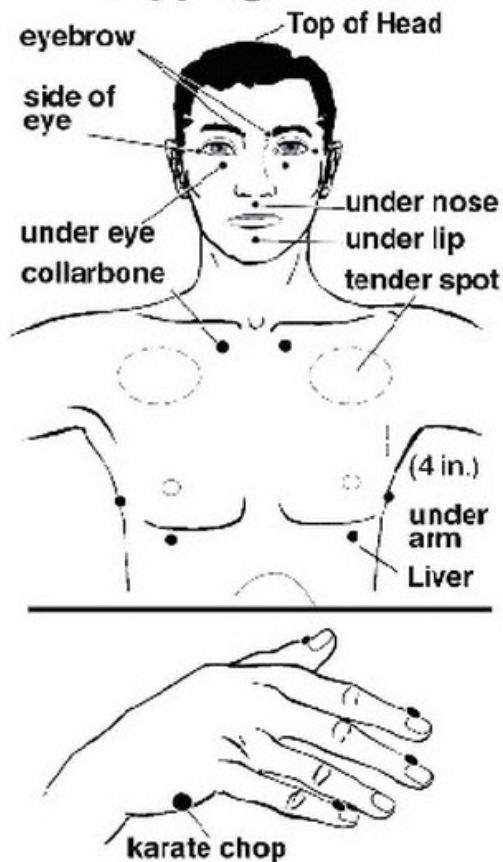
NADA Protocol

- Kidney: the kidney, and specifically its yin substances, needs to be strong in order for a person to be able to respond to fear and fright.
- Lung: the lung is associated with the emotion of grief and letting go, and its proper function is therefore required for a healthy grieving process.
- Liver: important in terms of resolving anger, controlling aggression.
- Shenmen: this point relates to the heart, helps alleviate anxiety and nervousness, and produces a calming, relaxing effect on the shen (mind/spirit).
- Sympathetic: the sympathetic point balances the activity of the sympathetic and parasympathetic nervous systems, calming the 'fight or flight' response.

EFT

EFT

Tapping Points



SET-UP

- **tender / sore spot** - Place your right hand over your heart. In the area where your fingertips land, rub gently until you find a place that's a little more sensitive than the surrounding area. This is the "sore" spot.
- **karate chop point** - outer edge of hand in fleshy part below the pinky finger

TAPPING POINTS (listed in order we tap them)

- **eyebrow** - inner edge of eyebrow, just above nose
- **side of eye** - on the bone, just outside the outer edge of the eye
- **under eye** - on the bone directly under the pupil
- **under nose** - center point under nose, above lip
- **chin** - center of chin, right in the crease
- **collarbone** - under collarbone, about 2" to either side of midline
- **under arm** - 4" below armpit
 - women: middle of bra band
 - men: even with the nipple
- **liver** - at lower edge of ribs, just outside imaginary line down from the nipple
- **wrist** - 3 points on each wrist, below crease where wrist joins hand
- **top of head** - crown of head

EFT

General Steps for the Tapping Process:

1. Identify a problem or concern you would like to address. This is often referred to as your Most Pressing Issue (MPI)
2. Rate the magnitude of the feeling, at this moment, on a scale of 0-10, with 10 being the most intense.
3. Establish a Set-up Statement or Affirmation using the following statement:
Even though I have _____, I deeply and completely love and accept myself.
4. Select a "Reminder Phrase"; this is a few words that help you focus on your most most pressing issue (MPI) For example, this stress....
5. Start by tapping on your karate chop point, repeat your "Set-up Statement" 3 times.
Even though I have _____, I deeply and completely love and accept myself.
6. Using 2 fingers, tap on each point (5-7 times each) starting from the inner eyebrow a and finishing the cycle at the top of your head, while making affirmative statements and reciting your "reminder phrase" Exapmle: This stress... is overwhelming
7. Complete 1-2 rounds of tapping and then rate the intensity of the problem again on a scale of 0-10.
8. Continue the tapping or stop when you experience relief or need to move on.

Battlefield Acupuncture

Battlefield Acupuncture



Battlefield Acupuncture

- ASP gold needles are inserted into the auricular points.
- After the patient has graded their pain out of 10, the first point is inserted and they activate the point by walking around.
- When asked to re-grade their pain, they usually find it has begun to drop.
- Further points are inserted one at a time in sequence and patients re-grade their pain out of 10 with each needle.
- Patients leave with the needles in place and are able to go about their daily lives.
- Patients may return for further treatments 1 to 2 weeks later, depending on their individual needs.

Battlefield Acupuncture

- Research: Battlefield Acupuncture for Chronic Pain in Veterans
 - A total of 112 patients attended the group clinics at the VA in the primary care setting.
 - The mean pretreatment pain score was 6.8, with an immediate postprocedure decrease of 2.4 points.
 - The proportion of patients reporting decreased pain was 88.4%, 80.7%, 52.4%, and 51% at posttreatment days 0, 1, 7, and 30, respectively.
 - Note: decrease in pain scores was more sustained in patients with higher baseline scores, suggesting that patients with greater baseline pain scores may experience a more prolonged benefit from Battlefield Acupuncture.

References

1. Federman DG, Radhakrishnan K, Gabriel L, et al. Group Battlefield Acupuncture in primary care for veterans with pain. South Med J 2018 Oct;111(10):619-624.

Compassion Fatigue

Compassion Fatigue

- A term that refers to a gradual lessening of compassion over time.
- Healthcare providers exhibit several symptoms including hopelessness, a decrease in experiences of pleasure, constant stress and anxiety, and a pervasive negative attitude.
- This can have detrimental effects on individuals, both professionally and personally, including a decrease in productivity, the inability to focus, and the development of new feelings of incompetency and self doubt.

Compassion Fatigue

- Self-Treatment Plan
 - Qi-Gong
 - Medical Massage
 - Yoga
 - Tai Chi
 - Acupuncture
 - Reiki
 - Meditation
- Exercise
- Nutrition
- Leave Work at Work

Psychopharmacology

Psychopharmacology

- SSRIs: selective serotonin reuptake inhibitors
 - Used first-line for anxiety and depression.
 - Sertraline (Zoloft): most widely used. First-line for PTSD.
 - Paroxetine (Paxil): has a lot of side effects. First-line for PTSD.
 - Fluoxetine (Prozac): has the longest half-life (for non-compliant pts).
 - Citalopram (Celexa): only used for depression.
 - Escitalopram (Lexapro): has the least side effects.
- Side Effects:
 - Sexual dysfunction
 - GI (nausea, diarrhea, constipation)
 - CNS (dizziness, insomnia, agitation, headaches)
 - Rare, but causes suicidal ideation in those < 24 yrs old

Psychopharmacology

- SNRIs: serotonin norepinephrine reuptake inhibitors
 - Used second-line for anxiety and depression.
 - Venlafaxine (Effexor): most widely used.
 - Duloxetine (Cymbalta): can also be used for diabetic neuropathic pain, fibromyalgia, musculoskeletal pain.
- Side Effects:
 - Sexual dysfunction
 - GI (nausea, diarrhea, constipation)
 - CNS (dizziness, insomnia, agitation, headaches)
 - Increase in blood pressure
 - Urinary retention
 - Rare, but causes suicidal ideation in those < 24 yrs old

Psychopharmacology

- Serotonin Syndrome:
 - SSRI's, SNRI's, St. John's Wort, Demerol, Tramadol, ondansetron (Zofran), TCA's, and MOAI's taken in combination may cause serotonin syndrome.
 - Clinical presentation: agitation, hyperthermia, hypertension, hyperreflexia, muscular rigidity, delirium, confusion, disorientation.
 - Treatment:
 - supportive care w/ IV fluids and oxygen.
 - benzodiazepines for agitation.
 - hypertension/tachycardia with short-acting beta-blockers (i.e., esmolol or nitroglycerin).
 - use evaporative and convective cooling for hyperthermia. The naked patient is sprayed with a mist of lukewarm water while fans are used to blow air over the moist skin.
 - If these measures do not improve agitation or correct vital signs, use serotonin antagonist: cyproheptadine.

Suicide Risk Factors and Protective Factors

Suicide Risk Factors and Protective Factors

- Suicide Risk Factors:
 - previous suicide attempts
 - access to firearms
 - history of substance and alcohol abuse
 - mental health diagnosis (i.e., depression)
 - isolation with no family and community support
 - chronic pain
 - insomnia
 - recent loss (i.e., relational, financial)
- Suicide Protective Factors:
 - religion
 - family and community support
 - no access to firearms
 - continued effective clinical mental health care
 - Goal Oriented (i.e., wants to get an education, wants a promotion at work)

Complex Cases: VA

Complex Cases

- Mr. E is a 33-yr-old African American male and Gulf War veteran with past psychiatric diagnosis of PTSD and cannabis abuse disorder with medical diagnosis of hypertension.
- Presents with:
 - chronic pain: back pain to the left of L2 to L4 with radicular pain to the left inguinal region. Bilateral knee and ankle pain with pain levels at 10 out of 10.
 - persistent PTSD symptoms of hyperarousal (i.e., anger, exaggerated startle responses).
 - somatic symptoms (i.e., rash on his lower back and abdominal region).
 - chronic cannabis abuse: smokes 2 to 5 blunts/day for chronic pain and anxiety.
 - Note: withdrawals from cannabis abuse causes anxiety, irritability.
- Mental Status Exam:
 - has passive suicidal ideations, no auditory or visual hallucinations.
 - thought content is logical and linear.
 - insight and judgment is fair.

Complex Cases

- Assessment:
 - PTSD with chronic cannabis abuse and chronic pain.
 - is goal oriented: seeking help for current condition.
 - has no access to firearms.
 - in a stable relationship with his girlfriend.
 - currently works at home with IBM as an IT analyst.
- Plan:
 - requested referral for chiropractic care for chronic pain.
 - requested referral for group psychotherapy.
 - educated patient on cannabis withdrawal symptoms of anxiety, insomnia, and irritability.
 - follow-up with primary care provider for further support and coordination.
 - contact psychiatry emergency care if symptoms of PTSD worsens.

Complex Cases

- Mr. S is a 73-yr-old Caucasian male and Vietnam veteran with past psychiatric diagnosis of PTSD and medical diagnosis of atherosclerotic heart disease and vascular dementia.
- Presents with (per collateral from wife):
 - worsening of aggression and anger for the past two weeks.
 - has punched the walls.
 - made verbal threats to wife, “Wishes she was a man so he could f*#\$ her up.”
 - patient then feels remorse for his actions and does not know why he is acting this way.
 - patient has worsening thoughts of depression from combat in Vietnam.
 - wife does not feel safe at home.
- Mental Status Exam:
 - has no insight to his current psychiatric condition with previous MoCA score of 9. Thus, poor remote and recent memory.
 - no current suicidal ideation.
 - no auditory or visual hallucinations.
 - thought process is tangential and circumstantial.

Complex Cases

- Assessment:
 - PTSD in the setting of worsening vascular dementia.
 - psychosocial stressors currently with son undergoing CF treatments.
 - wife needs respite and does not feel safe at home.
- Plan:
 - wife has power of attorney over medical care for Mr. S and has signed an involuntary commitment for inpatient psychiatric stabilization.
 - decreased dosage of sertraline as Serotonin Syndrome can cause agitation and aggression.
 - continued donepezil for dementia.
 - continued quetiapine for aggression.

Complex Cases

- Mr. R is a 26-yr-old Caucasian male and Gulf War veteran with past psychiatric diagnosis of adjustment disorder and medical diagnosis of degenerative disc disease and right shoulder bursitis.
- Presents with:
 - worsening of anxiety symptoms since Thanksgiving.
 - anxiety symptoms include: dizziness, nausea, dyspnea.
 - anxiety symptoms are affecting his social and work life.
 - takes 2 to 3 grams of kratom (herb with opioid properties: binds to mu receptors) for his anxiety, chronic pain for the past 2 yrs. Drinks on average 5 to 6 beers in social settings or every other day.
 - Note: withdrawals from kratom abuse is similar to opioid abuse, which causes anxiety, insomnia, rhinorrhea, diaphoresis, and nausea.
- Mental Status Exam:
 - affect is reactive, appropriate to mood.
 - insight and judgement is good/fair.
 - no current suicidal ideation.
 - no auditory or visual hallucinations.
 - thought process is logical and linear.

Complex Cases

- Assessment:
 - anxiety, unspecified in the setting of chronic substance abuse (i.e., kratom).
 - is goal oriented: seeking help for current condition.
 - currently employed at Roto-Rooter.
 - lives with his friend currently.
 - has a stable relationship with his girlfriend.
 - has a concealed permit.
- Plan:
 - requested hydroxyzine PRN for anxiety symptoms.
 - initiated trial of mirtazapine for anxiety symptoms (dosage taken at bedtime).
 - educated patient on kratom withdrawal symptoms of anxiety, insomnia, rhinorrhea, diaphoresis, and nausea.
 - follow-up with mental health access for further evaluation and coordination.
 - contact psychiatry emergency care if symptoms of anxiety worsens.

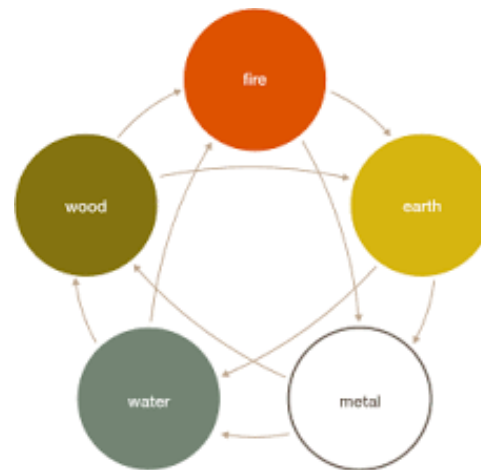
Complex Cases

- Mr. S is a 43-yr-old African American male and Gulf War veteran with past psychiatric diagnosis of schizoaffective disorder, major depression disorder, and cannabis abuse.
- Presents with (per collateral from wife):
 - worsening delusions, symptoms of agitation, and passive suicidal ideations.
 - patient stated he does not know why he is here at the psychiatry emergency care. Veteran was brought here by the police via involuntary commitment per wife.
 - wife noted increasing religious delusions of wanting to serve God with symptoms of agitation since the initiation of Prozac (fluoxetine), which are similar to previous episodes when veteran was admitted for inpatient stabilization.
 - smokes cannabis daily, amount not known.
 - Note: symptoms of Serotonin Syndrome include agitation, hypertension, and confusion. Symptoms of withdrawal from cannabis abuse include irritability.
- Mental Status Exam:
 - affect is labile. Mood is irritable, agitated.
 - has no insight to the cause of his current psychiatric condition.
 - has passive suicidal ideations, no auditory or visual hallucinations.
 - thought process is circumstantial, thought content is filled with religious delusions.

Complex Cases

- Assessment:
 - schizoaffective disorder in the setting of chronic cannabis substance abuse.
 - currently employed at La Quinta Inns & Suites.
 - does not have insight to his current psychiatric condition with worsening delusions and escalating agitation.
 - does not have access to firearms.
 - wife does not feel safe currently.
- Plan:
 - via involuntary commitment per wife, admitted veteran for inpatient psychiatric stabilization.
 - initiated quetiapine for agitation. Decreased dosage of fluoxetine as Serotonin Syndrome can cause symptoms of agitation.
 - adjusted dosage for next paliperidone injection, since paliperidone injection was initiated two weeks ago for schizoaffective disorder.

Five Elements



Five Elements

- Wood

- Clinical presentation:

- anger
 - frustration
 - easily irritable

- Approach:

- utilize acupoints in the Metal element: LU1 (subcutaneous), LU7.
 - letting go: Native American sweat lodge, healing ceremony through remembrance to enable closure.
 - adopting a spiritual perspective: post-traumatic growth.
 - occurs as a result of the struggle with highly traumatic event.
 - it is manifested in a variety of ways:
 - ❖ an increased appreciation for life.
 - ❖ more meaningful interpersonal relationships.
 - ❖ an increased sense of personal strength.
 - ❖ a richer existential and spiritual life.



Five Elements

- Fire

- Clinical presentation:

- anxious, insomnia
 - palpitations
 - diaphoresis

- Approach:

- utilize acupoints in the Water element: KID3, KID6, UB23.
 - regular meditation practice
 - neurofeedback
 - supplements: Stress Essentials (Integrative Therapeutics).



Five Elements

- Metal
 - Clinical presentation:
 - grief
 - profound emptiness
 - isolation, depression
 - Approach:
 - utilize acupoints in the Fire element: HT7, HT6, PC7.
 - Social support: family members, friends.
 - Group psychotherapy: gives comfort in that the grieving patient is not alone in their healing journey.



Five Elements

- Water

- Clinical presentation:

- constant fear
 - avoidance
 - nightmares

- Approach:

- utilize acupoints in the Earth element: SP6, ST36.
 - meditation: especially prior to being confronted with fear, provides a way to cultivate a secure “inner home” from within so that it could be available when needed.
 - yoga
 - EFT
 - Cognitive Behavioral Therapy



Common Psychiatric Conditions: Anxiety

Diagnostic Criteria for Generalized Anxiety Disorder (DSM-V)

- ≥ 3 symptoms, for at least 6 mths, excessive anxiety and worry occurring more days than not about a number of events or activities (such as work or school performance):
 - restlessness or feeling keyed up or on edge.
 - being easily fatigued.
 - difficulty concentrating or mind going blank.
 - irritability.
 - muscle tension.
 - sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep).

Western Differential Diagnosis

- Medical Disorders
 - Hyperthyroidism
 - Adrenal Tumors
 - Hyperparathyroidism
 - Cardiac Arrhythmias
- Panic Disorder
 - Post-Traumatic Stress Disorder
 - Generalized Anxiety Disorder
 - Obsessive-Compulsive Disorder
 - Phobia

Western Treatment

- SSRIs comprise the mainstay of Western treatment for anxiety (first-line).
- SNRIs can also be used: venlafaxine, duloxetine.
- Benzodiazepines are used as second-line: addictive.
- Buspirone (second-line):
 - Anxiolytic drug used for the long-term management of anxiety disorders and short-term relief of the symptoms of anxiety with no addictive potential.
- Cognitive-Behavioral Therapies (first-line):
 - deep breathing exercises
 - guided imagery
 - progressive muscle relaxation

TCM Etiology

- In Chinese Medicine, anxiety is caused by an imbalance of the Zang organs, primarily the heart and the spleen.
- This imbalance is a result of recurrent stimulations from the seven affects:
 - Joy: too much joy damages the heart.
 - Anger: prolonged anger also damages the liver.
 - Pensiveness/Thought: too much thinking damages the spleen.
 - Sorrow: excessive sorrow damages the lungs.
 - Fear: prolonged fear damages the kidneys.
 - Fright: damages the heart and the kidneys.
 - Anxiety: damages the heart and the spleen.

TCM Differentiation

- Heart qi deficiency and blood stasis:
 - Symptoms: sudden onset of tension and fear, restless sitting, distressed breathing, palpitations, suffocating feeling in the chest, shortness of breath, insomnia, profuse dreams, dark, pale tongue with white coating, fine, weak, intermittent pulse.
 - Formula: Tian Wang Bu Xin Tang (Modified).
 - Herbs: Sheng Di Huang, Wu Wei Zi, Dang Gui, Tian Men Dong, Mai Men Dong, Bai Zi Ren, Suan Zao Ren, Ren Shen, Xuan Shen, Fu Ling, Dan Shen, Jie Geng.
- Liver depression and phlegm-fire:
 - Symptoms: depression, anxiety, worry, sorrow, agitation, anger, frequent sighing, insomnia, profuse dreams, chest oppression, rib-side pain, profuse, thick phlegm, red tongue with greasy, yellow coating, rapid, slippery, bowstring pulse.
 - Formula: Chai Hu Shu Gan Tang (Modified).
 - Herbs: Chai Hu, Chen Pi, Bai Shao, Zhi Ke, Chuan Xiong, Xiang Fu, Huang Lian, Ban Xia, Gua Lou, Gan Cao.

TCM Differentiation

- Heart qi and blood stasis:
 - Symptoms: tension, impaired memory, fear and dread, chest pain and oppression, belching, stagnant facial complexion with dark circles around the eyes, dark, red tongue with macules, deep, fine, and choppy pulse.
 - Formula: Xue Fu Zhu Yu Tang (Modified).
 - Herbs: Dan Shen, Dang Gui, Chuan Xiong, Chi Shao, Tao Ren, Hong Hua, Chai Hu, Zhi Ke, Xiang Fu, Yu Jin, Long Chi, Yuan Zhi, Hu Po, Gan Cao.
- Heart and spleen deficiency:
 - Symptoms: fear and dread, worry and anxiety, insomnia, palpitation, fatigue, loose stools, lassitude of the spirit, cold hands and feet, pale, white facial complexion, pale lips, swollen tongue with teethmarks and a white tongue coating, fine, and weak pulse.
 - Formula: Gui Pi Tang (Modified).
 - Herbs: Ren Shen, Huang Qi, Dang Gui, Long Yang Rou, Bai Zhu, Fu Ling, Suan Zao Ren, Mu Xiang, Yuan Zhi, Da Zao, Sheng Jiang, Gan Cao.

TCM Differentiation

- Kidney yin deficiency transforming into heat:
 - Symptoms: fear and dread, susceptibility to fright, agitation, tinnitus, dizziness, malar flushing, night sweats, dry mouth, low back and knee soreness, red tongue with no tongue coating, fine, rapid pulse.
 - Formula: Huang Lian E Jiao Tang (Modified).
 - Herbs: Huang Lian, E Jiao, Huang Qin, Bai Shao.

TCM Differentiation

- Group Exercise:
 - Which points would you use for these TCM differential diagnoses?

Common Psychiatric Conditions: Insomnia

Diagnostic Criteria for Insomnia Disorder (DSM-V)

- ≥ 1 symptom, for at least 3 nights a week for at least 3 mths:
 - difficulty falling asleep.
 - difficulty staying asleep, with frequent awakenings or difficulty falling back asleep.
 - early morning awakening.

Western Differential Diagnosis

- Medical Disorders
 - Parkinson's Disease and Huntington's Disease
 - Alzheimer's Disease
 - Seizure Disorders (occurring during sleep)
 - Sleep Apnea
 - Restless Leg Syndrome
- Panic Disorder
- Post-Traumatic Stress Disorder
- Generalized Anxiety Disorder
- Mood Disorders (i.e., Bipolar Disorder, depression)
- Schizophrenia

Western Treatment

- Disrupted sleep is a concomitant of many neurological disorders, where there is no cure in Western medicine.
 - Parkinson's Disease
 - Huntington's Disease
- Antihistamines (hydroxyzine)
- Sedative-hypnotics (zolpidem)
- Benzodiazepines

TCM Etiology

- Sleep results from the descending heart's yang qi and enfolded by the yin.
 - Sleep is yin and is ruled by the spirit.
 - If the spirit is not quiet, there is no sleep.
- If the heart spirit becomes disquieted, the yang qi may not descend.

TCM Differentiation

- Heart blood deficiency with spleen qi deficiency:
 - Symptoms: insomnia, profuse dreams, impaired memory, lassitude of the spirit, lack of strength in the limbs, loose stools, shallow facial complexion, excessive worry, fatigue, pale tongue with thin, white coating, thin, weak pulse.
 - Formula: Gui Pi Tang (Modified).
 - Herbs: Huang Qi, Dang Shen, Bai Zhu, Fu Shen, Long Yan Rou, Suan Zao Ren, Mu Xiang, Dang Gui, Yuan Zhi, Shi Chang Pu, Hu Po, Long Chi, Gan Cao.
- Liver blood deficiency transforming into heat:
 - Symptoms: insomnia, agitation, irritability, palpitations, night sweats, dizziness, pale tongue with red tip, fine and rapid pulse.
 - Formula: Suan Zao Ren Tang (Modified).
 - Herbs: Suan Zao Ren, Zhi Mu, Fu Ling, Huai Xiao Mai, Gan Cao.

TCM Differentiation

- Heart and kidney noninteraction pattern:
 - Symptoms: insomnia, heart palpitations, low back and knee soreness, night sweats, red tongue with no fur, fine and rapid pulse.
 - Formula: Huang Lian E Jiao Tang (Modified).
 - Herbs: Huang Lian, Huang Qin, Bai Shao, E Jiao, Yuan Zhi, Fu Shen, Tian Men Dong.
- Heart yin deficiency:
 - Symptoms: insomnia, heart palpitations, profuse dreams, sores in the mouth, heat in the five hearts, night sweats, red tongue with no fur, fine and rapid pulse.
 - Formula: Tian Wang Bu Xin Dan (Modified).
 - Herbs: Sheng Di Huang, Dang Shen, Dan Shen, Xuan Shen, Fu Shen, Wu Wei Zi, Yuan Zhi, Dang Gui, Tian Men Dong, Mai Men Dong, Bai Zi Ren, Suan Zao Ren.

TCM Differentiation

- Heart and gallbladder qi deficiency:
 - Symptoms: insomnia, fear of sleeping alone, timidity, palpitations, waking in fright, frequent sighing, dizziness, pale tongue, fine, weak pulse.
 - Formula: Ding Zhi Wan (Modified).
 - Herbs: Ren Shen, Fu Ling, Fu Shen, Shi Chang Pu, Yuan Zhi, Suan Zao Ren, Long Chi, Hu Po.
- Phlegm-fire harassing the heart and the gallbladder:
 - Symptoms: profuse dreams, dizziness, heart palpitations, chest oppression, red tongue with greasy, yellow coating, slippery and rapid pulse.
 - Formula: Huang Lian Wen Dan Tang (Modified).
 - Herbs: Huang Lian, Ban Xia, Zhu Ru, Zhi Shi, Chen Pi, Shi Chang Pu, Yuan Zhi, Suan Zao Ren, Long Gu, Mu Li.

TCM Differentiation

- Liver-fire:
 - Symptoms: insomnia, headaches, irritability, rib-side distention, frequent sighing, bitter taste in the mouth, red eyes, constipation, red tongue with yellow coating, rapid and bowstring pulse.
 - Formula: Xie Qing Wan (Modified).
 - Herbs: Long Dan Cao, Huang Qin, Zhi Zi, Da Huang, Chai Hu, Dang Gui, Chuan Xiong, Zhen Zhu Mu, Long Chi.
- Heart-fire:
 - Symptoms: insomnia, red complexion, sores in the mouth, thirst with a desire for cold drinks.
 - Formula: Dao Chi San (Modified).
 - Herbs: Sheng Di Huang, Mu Tong, Dan Zhu Ye, Gan Cao, Deng Xin Cao.

TCM Differentiation

- Group Exercise:
 - Which points would you use for these TCM differential diagnoses?

Common Psychiatric Conditions: Depression

Diagnostic Criteria for Major Depressive Disorder (DSM-V)

- ≥ 5 symptoms, for at least 2 weeks, with at least one of the symptoms being depressed mood or loss of interest:
 - depressed mood (present most of the day, almost every day).
 - insomnia or hypersomnia.
 - loss of interest or pleasure (anhedonia).
 - feelings of worthlessness or guilt.
 - fatigue or loss of energy.
 - impaired concentration or indecisiveness.
 - change in weight or appetite.
 - psychomotor agitation or retardation.
 - thoughts of death or suicidal ideation or suicide attempt.

Western Differential Diagnosis

- Medical Disorders
 - Endocrinology Disorders (Hypothyroidism & Adrenal Dysfunction)
 - Cancer
 - Multiple Sclerosis (MS)
 - Infectious Diseases (HIV & Hepatitis)
 - Traumatic Brain Injury
 - Neurologic Disorders (Brain Tumors)
- Psychiatric Disorders
 - Major Depressive Disorder
 - Schizophrenia (negative symptoms: flat affect, anhedonia, apathy)
 - Bipolar Disorder (often concurrent with depression)
 - Anxiety Disorders (PTSD)

Western Treatment

- Hospitalization is required when symptoms are severe or the patient is suicidal.
- Combined approach utilizing antidepressants (SSRIs) and cognitive therapy: first-line.
- Serotonin norepinephrine reuptake inhibitors (SNRIs)
- Atypical antidepressants:
 - Bupropion: less sexual dysfunction, can also treat tobacco dependence, no weight gain, lowers seizure thresholds (don't give in those with eating disorders). Bupropion + Zoloft to improve mood for those with depression.
 - Mirtazipine: significant weight gain, depression w/no appetite, very sedating.
 - California Rocket Fuel: mirtazapine + Effexor (venlafaxine) for those with severe depression in which SSRIs have not worked.

TCM Etiology

- TCM mechanisms of depression involves the liver viscera.
- Patients with depression primarily exhibits symptoms of liver depression.
- Main causes of liver depression includes unfulfilled desires, faulty diet, too little exercise, and anger.
- When desires are unfulfilled, the liver's qi mechanism becomes depressed and stagnant.
- Liver depression eventually effects the heart and the spleen.
 - When liver qi is stagnant, spleen qi becomes weak leading to the accumulation of dampness.
 - When dampness lingers, it congeals into phlegm or accumulates into heat, blocking the orifices of the heart.
 - Liver qi stagnation can also turn into heat or fire, and thus, affecting the heart.

TCM Differentiation

- Liver qi depression:
 - Symptoms: irritability, frequent sighing, frequent sighing, rib-side pain, lower abdominal distention and pain, diminished appetite, dark tongue with thin, white coating, bowstring pulse.
 - Formula: Chai Hu Shu Gan Tang (Modified).
 - Herbs: Chai Hu, Zhi Ke, Bai Shao, Gan Cao, Xiang Fu, Yu Jin, Chuan Xiong.
- Liver depression transforming into fire:
 - Symptoms: violent outbursts of anger, frequent sighing, rib-side pain, lower abdominal distention and pain, diminished appetite, bitterness in the mouth, red eyes, headaches, constipation, red tongue with yellow coating, bowstring and rapid pulse.
 - Formula: Dan Zhi Xiao Yao San (Modified).
 - Herbs: Mu Dan Pi, Zhi Zi, Chai Hu, Bai Zhu, Bai Shao, Dang Gui, Fu Ling, Gan Cao.

TCM Differentiation

- Blood movement depression and stagnation pattern:
 - Symptoms: depression, agitation, thoughts of suicide, dark facial complexion, rib-side pain, purplish tongue with macules, white tongue coating, bowstring and choppy pulse.
 - Formula: Jin Ling Zi San (Modified).
 - Herbs: Chuan Lian Zi, Yan Hu Suo, Tao Ren, Dang Gui, Yu Jin, Jiang Xiang.
- Phlegm qi depression:
 - Symptoms: plum pit qi, discomfort within the throat as if there was something obstructing the throat, rib-side pain, oppression in the chest.
 - Formula: Si Qi Tang (Modified).
 - Herbs: Su Geng, Chuan Bu Hua, Ban Xia, Fu Ling, Sheng Jiang, Da Zao.

TCM Differentiation

- Phlegm-fire:
 - Symptoms: insomnia, profuse phlegm, chest oppression, acid regurgitation, nausea, bitter taste in the mouth, dizziness, greasy, yellow tongue coating, slippery bowstring, rapid pulse.
 - Formula: Jin Ling Zi San (Modified).
 - Herbs: Chuan Lian Zi, Yan Hu Suo, Tao Ren, Dang Gui, Yu Jin, Jiang Xiang.

TCM Differentiation

- Group Exercise:
 - Which points would you use for these TCM differential diagnoses?

Supplements

Supplements

- Supplement that support the Hypothalamus-Adrenal-Pituitary Axis and helps decrease the impact of stress on the body. Can be used for hypo or hyperfunction of the adrenals.
 - Adaptocrine (Apex Energetics)
 - Vitamin C (200 mg)
 - Panax Ginseng Root (400 mg)
 - Ashwagandha Root (400 mg)
 - Holy Basil Leaf Extract (200 mg)
 - Rhodiola Root Extract (150 mg)
 - Eleutherococcus Root (100 mg)
 - Pantethine (100 mg)

Supplements

- D, L-Phenylalanine helps to naturally reduce pain signals in the nervous system.
 - D, L-Phenylalanine (Metabolic Maintenance)
 - D, L-Phenylalanine (750 mg)
 - Vitamin B6 (15 mg)

Supplements

- Supplement that provides botanicals to support serotonin activity, balance serotonin catabolism, and provide amino acids and cofactors required for serotonin production.
 - Serotone (Apex Energetics)
 - Niacin (50 mg)
 - Vitamin B6 (10 mg)
 - Folic Acid (200 mcg)
 - Vitamin B12 (1000 mcg)
 - Magnesium (10 mg)
 - St. Johns Wort Extract (200 mg)
 - SAMe (60 mg)
 - 5-HTP (75 mg)

Supplements

- Supplement that nourishes depleted adrenals, wards off fatigue, and promotes a healthy stress response by the body.
 - Adrenal Response (Innate Response)
 - Vitamin C (100 mg)
 - Pantothenic Acid (30 mg)
 - Magnesium (40 mg)
 - Ashwagandha Root and Leaf Extract (250 mg)
 - L-Serine (200 mg)
 - Reishi Mushroom (200 mg)
 - Rhodiola Rosea Root Extract (200 mg)
 - Holy Basil Leaf Extract (175 mg)
 - Organic Astragalus Root (100 mg)
 - Organic Schisandra Berry (100 mg)

Supplements

- Supplement that replenishes nutrients depleted by physical stress.
 - Stress Essentials (Integrative Therapeutics)
 - Vitamin C (100 mg)
 - Thiamin (12 mg)
 - Riboflavin (12 mg)
 - Niacin (10 mg)
 - Vitamin B6 (15 mg)
 - Folic Acid (75 mcg)
 - Vitamin B12 (12 mcg)
 - Biotin (100 mcg)
 - Pantothenic Acid (20 mg)
 - Calcium (50 mg)

Supplements

- Supplement that replenishes nutrients depleted by physical stress.
 - Stress Essentials (Integrative Therapeutics)
 - Magnesium (30 mg)
 - Zinc (1.5 mg)
 - Manganese (5 mg)
 - Potassium (25 mg)
 - L-Tyrosine (50 mg)
 - Chinese Skullcap (50 mg)
 - Eleuthero (50 mg)
 - Hops (50 mg)
 - Inositol (50 mg)
 - Passionflower (50 mg)
 - Valerian (50 mg)
 - PABA (5 mg)

Supplements

- Supplement that supports serotonin production for normal sleep and positive mood.
 - 5-HTP (Integrative Therapeutics)
 - L-5-Hydroxytryptophan (50 mg)

Supplements

- Supplement that regulates healthy brain nerve cell functions and supports healthy neurochemical balance.
 - GABA (Integrative Therapeutics)
 - Gamma-aminobutyric acid (750 mg)

Supplements

- Supplement that supports healthy metabolism, promotes weight loss, and enhances thyroid health.
 - Tyrosine Complex (Integrative Therapeutics)
 - Vitamin B12 (100 mcg)
 - Iodine (200 mcg)
 - Magnesium (200 mg)
 - Zinc (6 mg)
 - Copper (300 mcg)
 - Manganese (2.3 mg)
 - Molybdenum (100 mcg)
 - Sodium (20 mg)
 - L-Tyrosine (248 mg)
 - Multi-Glandular Complex (70 mg)
 - Thyroid: thyroxin-free (8 mg)

Supplements

- Supplement that reduces cortisol levels for all-day stress reduction and restful sleep.
 - Cortisol Manager (Integrative Therapeutics)
 - Stress-Reducing Proprietary Blend (250 mg):
ashwagandha (*Withania somnifera*) (Sensoril® brand) root and leaf extract standardized to contain 8% withanolides and L-theanine (Suntheanine® brand).
 - Cortisol-Reducing Proprietary Blend (225 mg):
magnolia (*Magnolia officinalis*) bark extract standardized to contain 2% honokiol and 1% magnolol and epimedium (*Epimedium koreanum*) aerial part extract.
 - Phosphatidylserine 50 mg

Supplements

- Supplement that utilizes neurotransmitter inhibitor precursors to decrease hyperarousal.
 - MetaCalm (Metabolic Maintenance)
 - Vitamin C (40 mg)
 - Vitamin B6 (25 mg)
 - Folate (200 mcg)
 - Vitamin B12 (30 mcg)
 - Magnesium (200 mg)
 - Zinc (10 mg)
 - GABA, Taurine, Inositol, 5-HTP, L-Theanine (900 mg)

Supplements

- Supplement that utilizes a GABA agonist for anxiety and hyperarousal.
 - Anxiety Control (Metabolic Maintenance)
 - Vitamin B6 (10 mg)
 - Magnesium (100 mg)
 - GABA (400 mg)
 - Glycine (100 mg)
 - L-Glutamine (140 mg)
 - Passion Flower (150 mg)
 - Primula Veris Officinalis (150 mg)

Supplements

- Omega-3 formulation, combining a 1:1 ratio of EPA/DHA, along with standardized phytocannabinoids found in hemp oil. The omega-3 fatty acids found in this product are best known for their neuro-protective properties and their roles in brain health, including support for healthy mood and cognition (i.e., TBI).
 - CannabOmega (Designs For Health)
 - EPA (200 mg)
 - DHA (200 mg)
 - Other Omega-3 Fatty Acids (85 mg)
 - Hemp Oil (100 mg)

Supplements

- Supplement that provides the necessary means for the production of cellular energy (i.e., Gulf War Illness).
 - CoQ10 (Integrative Therapeutics)
 - CoQ10 (100 mg)

Reference Books

Reference Books

- Herman, Judith. Trauma and Recovery: The Aftermath of Violence. Basic Books: New York, NY.
- Van der Kolk, Bessel A. Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body, and Society. The Guildford Press: New York, NY.
- Maté, Gabor. When the Body Says No: Exploring the Stress-Disease Connection. John Wiley & Sons, Inc.: Hoboken, NJ.
- Maté, Gabor. In the Realm of Hungry Ghosts: Close Encounters with Addiction. North Atlantic Books: Berkeley, CA.

Reference Books

- Levine, Peter A. In an Unspoken Voice: How the Body Releases Trauma and Restores Goodness. North Atlantic Books: Berkeley, CA.
- Levine, Peter A. Waking the Tiger: Healing Trauma. North Atlantic Books: Berkeley, CA.
- Gordon, James S. Unstuck: Your Guide to the Seven-Stage Journey Out of Depression. The Penguin Press: New York, NY.
- Tick, Edward. War and the Soul. Quest Books: Wheaton, IL.
- Brandi, Andrew. The Warrior's Guide to Insanity. Brandi Books: Cerrillos, NM.

Reference Books

- Ross, Julia. The Mood Cure. Penguin Books: New York, NY.
- Wells BG, DiPiro JT, Schwinghammer TL, DiPiro CV. The Pharmacotherapy Handbook. McGraw-Hill Medical: New York, NY.
- Hanh, Thich Nhat. Reconciliation: Healing the Inner Child. Parallax Press: Berkeley, CA.
- Maciocia, Giovanni. The Psyche in Chinese Medicine. Elsevier: Philadelphia, PA.
- Flaws B, Lake J. Chinese Medical Psychiatry. Blue Poppy Press: Boulder, CO.

Reference Books

- Chen J, Chen T. Chinese Medical Herbology and Pharmacology. Art of Medicine Press, Inc.: City of Industry, CA.
- Dolowich, Gary. Archetypal Acupuncture: Healing with the Five Elements. Jade Mountain Publishing: Aptos, CA.

Inspirational Books

- A Long Way Home: Saroo Brierley
- Mountains Beyond Mountains: Tracy Kidder
- Trauma and Recovery: Judith Herman
- Chinese Medical Psychiatry: Bob Flaws
- The Art of Happiness: Dalai Lama
- The Healing of America: T.R. Reid
- The 7 Habits of Highly Effective People: Stephen Covey
- The Marshmallow Test- Mastering Self-Control: Walter Mischel
- Unbroken- A World War II Story of Survival, Resilience, and Redemption: Laura Hillenbrand

Afoot and light-hearted I take to the open road.
Healthy, free, the world before me. The long brown
path before me leading me wherever I choose.
Henceforth, I ask not good fortune, I myself am good
fortune. Henceforth, I whimper no more, postpone no
more, need nothing.

Walt Whitman

QuoteMaster.org

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Questions???

