

The Role of Acupuncture and Chinese Medicine for Emotional Disorders

Presented By :
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Better Living Through Chemistry

Side-effects:

Take two tablets everyday for joint pain

.....This drug may cause joint pain, nausea, headaches, shortness of breath. You may also experience muscle aches, rapid heartbeat, or ringing in the ears. If you feel faint, call your doctor. Do not consume alcohol while taking this pill; likewise, avoid red meat, shellfish, and vegetables. Okay foods: flounder. Under no circumstance eat yak.....Projectile vomiting is common in 30 percent of users-sorry: 50 percent. If you undergo disorienting nausea accompanied by migraine with audible raspy breathing, double the dosage. Leg cramps are to be expected; up to to one knee buckler per day is allowable. Bowel movements may become frequent up to every ten minutes. If bowel movements become greater than twelve per hour, consult your doctor, or in fact any doctor, or anyone who will speak to you. You many find yourself becoming lost or vague; this would be a good time to write a screenplay.....

-Quote from the book, **Pure Drivel** by Steve Martin

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Setraline hydrochloride (Zoloft)

Take for depression, OCD, PTSD, social anxiety

Frequent side-effects (26%-12%): Headache, nausea, diarrhea, insomnia, somnolence, dizziness, fatigue, rash, dry mouth

Occasional side-effects (6%-4%): Anxiety, nervousness, agitation, tremor, dyspepsia, diaphoresis, vomiting, constipation, abnormal ejaculation, visual disturbances, altered taste

Rare side-effects (less than 3%): Flatulence, urinary frequency, parasthesia, hot flashes, chills

-Taken from the Nursing Drug Handbook-2007 by Saunders

BLACK BOX WARNING: Antidepressants increased the risk compared to placebo of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults in short-term studies of major depressive disorder (MDD) and other psychiatric disorders.

-Taken from www.rxlist.com

**IF THERE WAS AN
ALTERNATIVE THAT
LACKED THESE SIDE-
EFFECTS, WOULD YOU
TRY IT ?**

World Health Organization (WHO)

cites over 43 conditions treatable (through controlled trials) by
Acupuncture including:

- Allergies
- Asthma
- Back pain
- Carpal Tunnel
- Colds & Flu
- Constipation
- Depression
- Gynecological disorders
- Headache
- Heart Problems
- Infertility
- Insomnia
- PMS
- Sciatica
- Sports Injuries
- Stress
- Tendonitis

What is Acupuncture?

Acupuncture is part of the system of healing called
Traditional Chinese Medicine (TCM)

TCM Includes:

- Acupuncture (needles, cupping, gwa sha, electrical and low-level laser)
- Chinese herbs
- Bodywork: tui na, acupressure
- Nutrition
- Exercise
- Meditation

How Does Acupuncture Work?

- TCM views illness as an “Imbalance” within the body
- This imbalance can refer to one or more “substances” within the body.
 - Qi, Yin, Yang, Blood, Water, Jing
- Examples of imbalances include excess, deficiency, stagnation, rebellious (flowing in wrong direction)
- Acupuncture uses needles at various points in the body to restore this Balance

What is Qi?

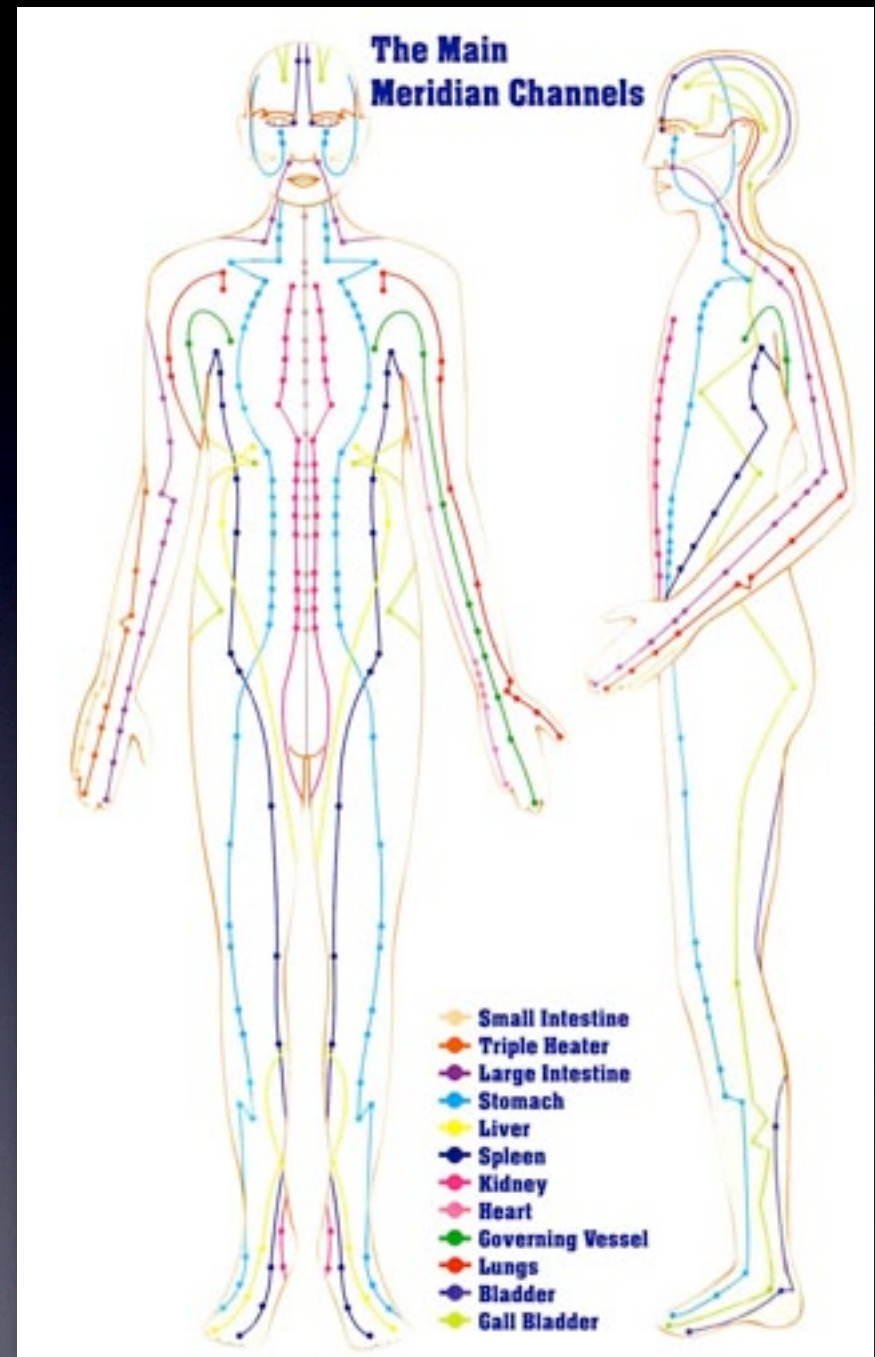
- Qi is defined as the essential life force that circulates throughout the body.
 - The concept of this life force is common to several Eastern cultures
 - China = Qi
 - Japan = Ki
 - India = Prana
- Where does it come from?
 - Food
 - Air
 - Inherited from Parents
 - The Qi that flows along the meridians is a combination of all of these “ingredients”
- This explains why proper diet, exercise, and breathing are strongly emphasized in chinese medicine

What is Qi? (continued)

- Normally, Qi is circulating continuously throughout the body
- When the circulation of qi is interrupted, imbalance will occur and disease can result
- Imbalance can be caused by diet, lifestyle, environmental toxins, emotional trauma, physical trauma
- The path to proper health lies in restoring the proper flow of Qi

The Meridians

- Qi flows along 12 primary and 8 secondary meridians
- Each of these Primary Meridians is associated with 12 of the Primary organs of the body
- Acupuncture points are regions where the qi “pools” during its flow along the meridians



The Role of Internal Organs

- Each organ serves several functions and has distinct symptoms when it is in a state of disharmony
- Understanding the function of these organs and recognizing the symptoms when they are in disharmony is the key to successful treatment with TCM

Example:

Functions of the liver Include:

Stores and cleans blood, produces bile, regulates menstruation, moistens the sinews, ensures proper flow of Qi, manifests in the eyes, affected by anger

YIN ORGANS	YANG ORGANS
Lung	Large Intestine
Spleen	Stomach
Heart	Small Intestine
Kidney	Bladder
Pericardium	San Jiao
Liver	Gall Bladder

Example of an Organ Disharmony

Liver Qi Stagnation:

Symptoms:

- Feeling of distention of the hypochondrium, epigastrium, or abdomen
- Breast distention or tenderness, irregular periods
- Alternating constipation/diarrhea,
- Cold hands
- Prolonged anger, depression, moodiness, feeling a constrictive lump in throat, pronounced sighing, belching
- Feeling up-tight, tension or muscle ache in neck and top of shoulders

The Role of Emotions in Chinese Medicine

- Chinese Medicine has always acknowledged a connection between physical and emotional health
- When the emotions are out of balance, our health is compromised
- Emotions cause disease only when they are long-lasting or extremely intense
- Specific emotions are connected (resonate) with specific “Yin” organs

Emotions and the Internal Organs (TCM)

- Healthy expression of emotions are OK but...
- Excessive or prolonged emotions will affect (damage) the internal organs (ex. takotsubo cardiomyopathy)
- While emotions can affect the organs, organ problems can also lead to emotional problems (gall-bladder removal causing depression?)

Emotion	Affected Organ
Anger	Liver
Joy	Heart
Worry	Lungs and Spleen
Pensiveness	Spleen
Sadness/Grief	Lungs and Heart
Fear	Kidneys
Shock	Kidneys and Heart

Emotions, Stress, and Health

- Western Medicine is also now acknowledging the link between mental health and physical health
- The neurochemistry of acute and prolonged emotional stressors is beginning to be understood.
- “Fight-or-Flight Response” - Traumatic events and high-stress environments induce a series of autonomic self-limiting reactions involving the HPA-axis (hypothalamus, pituitary, adrenal glands). These reactions were originally designed to increase our chance of survival
- Prolonged release of stress hormones (epinephrine, cortisol) can lead to a host of health problems:

tremors, insomnia, digestive disorders, heart palpitations, hypertension, inhibited immune response and secondary infections, heart disease, type 2 diabetes, weight gain, short-term memory loss (due to damage to hippocampus), increase rate of miscarriage, depression, anxiety disorders

Understanding Depression and Anxiety Disorders

- Emotional disorders including depression, anxiety, and PTSD all involve dysfunctions of the normal feedback loops that govern the stress response including cortisol, epinephrine, and associated neurotransmitters (nor-epinephrine, serotonin, GABA, endorphins, dopamine)
- The “checks and balances” system of excitatory and inhibitory neurotransmitters is out of balance
- While can't explain exactly why this happens, we can identify several factors that can contribute to mental disorders: Physical/emotional trauma or abuse, medications, conflict, death or loss, genetic pre-disposition, drug abuse, chronic pain

Understanding Post Traumatic Stress Disorder (PTSD)

- PTSD can be induced by a wide variety of traumatic events. The most common being combat and rape.
- While PTSD subjects may show some signs of depression and anxiety, they have their unique symptoms: ⁽³⁾
 - Flashbacks - intrusive memories of the event, physical reactions/distress to reminders of the event(s)
 - Memory-loss associated with event, associated mental detachment
 - Hyper-arousal - insomnia, irritability, hypervigilance
- Aside from unique neuro-chemical changes, PTSD patients also show neuro-structural changes (shrinkage) in the hippocampus and medial pre-frontal cortex; two areas that are responsible for helping to blunt the hyper-responsive state initiated in the amygdala. Some studies suggest that this volume change is a pre-disposition factor rather than an effect of trauma and PTSD^(1,2)

Pharmacological Treatments of Emotional Disorders

- Most medications target receptor sites to prevent re-uptake of neurotransmitters such as serotonin, nor-epinephrine, dopamine thus increasing their free concentration - OR - facilitate higher levels of GABA
- Modern drugs are getting better at targeting particular receptor sites while leaving other sites un-blocked
- Adjusting human behavior to “normal” is an elusive goal. How do we allow healthy expression of emotion but prevent debilitating emotional extremes?
- See Side-Effects

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Emotional Disorders and Chinese Medicine

- Chinese Medicine does not differentiate between mental disorders such as anxiety, depression, OCD, PTSD, ADD, ADHD, addiction
- Instead, they examine the manifested symptoms, associate them with the particular organ(s) disharmony, and address the underlying condition

Example:

- Patient #1: nightmares, depression, irritability, alternating constipation and diarrhea, tight shoulders and neck, and a wiry pulse
- Patient #2: hypervigilance, palpitations, fatigue, anxiety, and a thin, weak pulse

Both patients might be diagnosed with PTSD, but Patient #1 would be diagnosed with *Liver Qi Stagnation* and Patient #2 would be diagnosed with *Heart Blood Deficiency* from a TCM perspective

The Use of Acupuncture to Treat Emotional Disorders

- Animal studies have identified that acupuncture can “normalize” deficiencies or excesses in the neurotransmitters that are associated with mental disorders and addiction
- Animal studies and clinical human trials both show strong evidence that acupuncture can treat depression, anxiety, PTSD, drug addiction
- The minimal health-risks and side-effects of acupuncture are causing it to become increasingly popular

The Effect of Acupuncture on Neurotransmitters in Animal Studies

Study #1⁽⁴⁾

- Rats were induced with a morphine addiction and monitored for dopamine release in the nucleus accumbens
- Acupuncture was applied to acupuncture point Ht7, and control points TE8 and the Tail during a “morphine challenge” 15 days after withdrawal from their daily morphine intake
- Rats that were treated at Ht7 showed a significant **decrease** in dopamine release and hyperactivity during the morphine challenge.
- Rats that were acupunctured at TE8 or the tail showed the standard dopamine flood and hyperactive behavior expected from a morphine challenge
- Study showed that acupuncture can have a direct effect on dopamine release induced by drug addiction.

The Effect of Acupuncture on Neurotransmitters in Animal Studies

Study #2⁽⁵⁾

- Healthy rats were implanted with a microdialysis guide cannula into the nucleus accumbens to measure dopamine and serotonin (5-HT) levels
- Acupuncture was applied to acupuncture points UB23 either unilaterally or bilaterally for 60 minutes
- Significant increases in serotonin were noted up to 120 minutes following the treatment
- Higher levels of serotonin were released when acupuncture was applied bilaterally compared to unilaterally
- Interestingly, dopamine levels did not show any significant change during or after the treatment

The Effect of Acupuncture on Neurotransmitters

Reference #3⁽⁶⁾

- Acupuncture has a direct effect on stimulating high levels of endorphins⁽⁷⁾ that can play roles in both analgesia and the reward pathways involved in addiction
- Acupuncture can stimulate the inhibitory effect of GABA on dopamine release during exposure to drugs/alcohol. This acupuncture effect was negated when a GABA antagonist was injected.
- Acupuncture has been shown to both inhibit and increase concentrations of dopamine depending on the pre-existing state. Drug-induced sensitivity (morphine challenge) or depletion (alcohol withdrawal) of dopamine was normalized by acupuncture.
- Further research would be to determine exactly which points are effective in “normalizing” the levels of these neurotransmitters.

The Effect of Acupuncture on Depression

Study #1⁽⁹⁾

- Study at University of Arizona, 1998. 38 patients were split into three groups. One group was treated with acupuncture specifically designed to treat depression, a second group was treated with acupuncture points for generalized anxiety, and a third group was untreated during the first 8 weeks.
- 64% of the patients in the depression-specific group experienced full remission of symptoms (Hamilton Scale) during the first 8 weeks
- Patients who were treated with the depression-specific protocol improved significantly more than the non-specific acupuncture treated patients
- Follow-up studies have put this double-blind-placebo study into question.

The Effect of Acupuncture on Depression

Study #2⁽⁸⁾

- Study in 1994 at the China Academy of Traditional Chinese Medicine, Beijing
- 41 patients with depression were divided into two groups. The first group treated with acupuncture (6 times per week), the second group was treated amilriptyline (SSRI)
- Both groups showed a 90% effective rate according to the Hamilton's scale. Differences between the groups were insignificant
- Only the acupuncture group showed a marked decrease in anxiety somatization (physical symptoms manifested from anxiety)
- Results suggest that acupuncture is AT LEAST as effective as conventional therapy for the treatment of depression

The Effect of Acupuncture on Depression

Study #3⁽⁸⁾

- Clinical study on electro-acupuncture treatment for 61 cases of mental depression at Department of Acupuncture and Massotherapy, Beijing University of Traditional Chinese Medicine in 2004
- Plasma levels of cortisol and endothelin-1 were measured before treatment (*depressed people will have higher than normal cortisol levels, non-depressed people have peaks only at 8 am and 4 pm*)
- 30 patients were treated with electro-acupuncture and 31 (control) patients were treated with the tetracyclic drug Maprotiline (norepinephrine re-uptake inhibitor)
- Normalization (*lowering*) of cortisol and endothelin-1 levels occurred in both groups.
- Using the HAMD rating, total effective rate in the acupuncture group was 96%. The group treated with Maprotiline had a total effective rate of 90% (*relief of depression symptoms*)
- Unlike the control group, acupuncture group experienced little to no side-effects according to the Montgomery-Ashberg Depression Rating Scale.

The Effect of Acupuncture on PTSD

Study #1⁽¹⁰⁾

- Study at Department of Psychiatry and Behavioral Sciences and Family and Geriatric Medicine, University of Louisville School of Medicine, Louisville, Kentucky
- 73 people diagnosed with PTSD were divided into either an acupuncture group, a group-cognitive-behavioral therapy group, or a wait-list control group. Both the therapy and acupuncture groups received treatment for 12 weeks
- Compared to the control group, both the group treated by acupuncture and therapy showed a significant decrease in symptoms.
- Positive effects were still noted 3 months after treatment for both the acupuncture and therapy groups
- *Evaluation technique was not disclosed in the abstract (other than self-assessment)*

The Effect of Acupuncture on PTSD

Study #2⁽¹⁾

- Study conducted by Col. Charles Engel at Walter Reed Medical Center
- 55 active-duty personnel with PTSD were divided into control group (n=27) (medication or psychotherapy) or an acupuncture group (n=28)
- Acupuncture was administered 2x per week for 4 weeks.
- PTSD symptoms were evaluated with the PTSD Checklist-Civilian Version (PCL-C) scoring method
- Scores according to the PCL-C test were 58.1 for the acupuncture group and 55.4 for the control group BEFORE treatment
- The acupuncture group showed a decrease of **19.4** at the end of treatment and **19.8** at the 12 week follow-up
- The control group showed a decrease of **4.0** at the end of treatment and **9.7** at the 12 week follow-up
- **DETAILED PRESENTATION OF THIS STUDY IS AVAILABLE** ⁽¹⁾

The Effect of Acupuncture on PTSD

Summary:

- Acupuncture from Traditional Chinese Medicine is well accepted around the world as an effective treatment for a wide variety of illnesses
- Acupuncture has a direct effect on regulatory neurotransmitters in the body including those involved in emotional imbalances and drug addiction
- The low risks and lack of harmful side-effects makes it an incredibly safe alternative or *adjunct* to conventional therapy for emotional disorders including PTSD
- Military personnel and trauma victims now have a very safe and effective alternative to conventional therapies for PTSD and related disorders
- ITS CHEAP!

Thank You

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