

## **SAR2021 — Pandemic, Pain and Public Health**

A Symposium Summary by AAMA Member, Mitchell Elkiss, DO

*Summary (Detailed notes begin on page 3)*

Generally, the virtual symposium platform worked well for this international scientific symposium on acupuncture research. The quality of the presentations was excellent. I believe that we clinicians enjoy and need this type of conference to support our practices.

There was considerable discussion of Chinese herbal medicine for an acupuncture conference. The acupuncture was largely presented and performed TCM style by Lac, OMD, or MD/DOs.

I was surprised to see very few AAMA members in attendance and even fewer presenting. The AAMA symposium's papers and posters could well have been presented at SAR. The incorporation of medical acupuncture's lens on diagnostics and therapeutics would lead to a richer conversation.

The keynote speaker was **Helene Langevin**, who presented the NIH-CCIH strategic plan for FY2021-2025, called Whole Person Health. There is a conference for researchers interested in Whole Person Health in the Fall sponsored by NIH-CCIH. They want to promote clinician scientists. (They now have access to AI. She introduced the study of interoception. There was a general session on the importance of interoception.)

**Vitaly Napadow** presented on the RAVANS, a respiratory gated transcutaneous electrical stimulator of the afferent branch of the auricular nerve (ABVN). This device focuses on the cymba concha, delivers a one second pulse of 100 hz. during exhalation. It has demonstrated benefits in pelvic pain, LBP, and hints at many more uses.

**Lias Taylor-Swanson** presented on improved interoceptive awareness as measured on the MAIA scale which corresponded with an individual's capacity for emotional self-regulation.

There was a tribute to **Hugh MacPherson**, who recently passed away, offered by **Peter Wayne** and **Richard Hammerschlag**. They announced the creation of the Hugh MacPherson scholarship fund (MENSCH).

### **Pandemic**

Long-haul COVID is international.

Cross cultural complaints include fatigue, dyspnea/chest tightness, headaches/myalgias, anxiety/depression, sleep disorders, and autonomic dysfunction.

Many symptoms represent an exacerbation of a pre-morbid imbalance.

The TCM diagnosis consists of Depletion of SP, LU, KI Qi resulting in global Qi and Yin deficiency. Studies from SARS, MERS, and now COVID-19 show that acupuncture can be helpful in the treatment of long-haul symptoms.

Vagal stimulation can be used to quiet inflammation including cytokine storms.

### **Pain**

**Man Li** demonstrated the role of endocannabinoids in preventing the transition from acute to chronic pain.

**Rick Harris** presented his work with fibromyalgia patients. After EA, there was increased connectivity between the primary somatosensory cortex (SSI) and the anterior insula that correlated with pain relief. With MR spectroscopy this was confirmed to be GABAergic. EA inhibits pain in FM patients by stimulating GABAergic connectivity between the SSI and the anterior insula.

### **Public Health**

Great disparities exist in access, awareness, affordability, and availability of health care services.

Health literacy best predictor of an individual's state of health.

Group acupuncture provides low cost, high volume access to treatment.

Group care better than no care. Individual care better than group care.

### **Award Winners**

**Wing Fai Yeung**, Used two telemedicine sessions to train 200 participants in acupressure for insomnia. The results were positive.

**Gil Ton** National cohort study of 87,453 Taiwanese, those individuals who received acupuncture for their osteoarthritis had a decreased risk for coronary heart disease.

**Alessandra Anzolin** measured Therapeutic Alliance in an interactive model where patient and acupuncturist were wearing EEG electrode/embedded hair nets that are being monitored synchronously. During therapeutic alliance states there was a synchronous theta range activity that occurred between the anterior insula and the medial mid-cingulate cortex of both patient and acupuncturist.

**Zhipeng Ning** demonstrated a role for spinal acting adiponectin in EA induced analgesia.

SAR 2021 virtual PANDEMIC, PAIN, & PUBLIC HEALTH; ROLE of TRADITIONAL EAST ASIAN MEDICINE

June 14-16, 2021

GENERAL SESSION

**SYMPOSIUM 1: Research on Acupuncture and Traditional East Asian Medicine for COVID-19 and Other Viral Pandemics**

**Qiufu Ma** (Dana-Farber Cancer Institute) Acupuncture modulates cytokine storm by driving autonomic pathways.

Vagal nerve stimulation affects sympathetic outflow, so does acupuncture stimulation.

This vagal-adrenal reflex promotes survival.

EA drives a distinct NPY expressing subset of NE/chromaffin cells.

Lipopolysaccharide (LPS) induced systemic inflammation in mice creates a cytokine storm (CKS)

EA intervention has the following characteristics:

1. Somatotopic dependence (acupoint selectivity)  
ST36 (10hz) vagal-adrenal anti-inflammatory axis; 15 min EA activates vagal afferent evidence by c-fos.  
ST25- abdominal EA (10hz) fails to activate vagal afferents, no vagal-adrenal reflex  
“there are sensory neurons innervating the hindlimb deep fascia driving the V-A reflex”
2. Intensity dependence  
ST25-high intensity 1-3 mA drives a segmental sympathetic reflex. Spinal-splenic-spinal sympathetic efferent output, this can suppress inflammation by decreasing NPY (Dopamine beta Hydroxylase).
3. NPY co-released in some sympathetic neurons-- $\beta$ 2AR (adrenoreceptors) $\Rightarrow$  reduced inflammation  
-- $\alpha$ 2AR $\Rightarrow$ increased inflammation  
1-5 weeks after LPS induced CKS, there is elevation of  $\alpha$ 2 receptor, EA $\Rightarrow$ more inflammation,  $\alpha$ 2 receptor blockade is anti-inflammatory.  
ST25 EA activated NPY containing neurons, mediate systemic inflammation
  1. Acupoint selectivity V-A axis by ST36EA, low intensity, disease state independent
  2. Intensity dependent high intensity ST25 EA, spinal segmental sympathetic axis
  3. Disease state dependent- high intensity ST25 EA and the spinal sympathetic axis during active inflammation.

**Lisa Taylor-Swanson, Lisa Conboy** (Seattle Institute (SIEAM))

Seattle based Eastern Medicine Resource of Chinese Herbs for S/S of COVID-19.

Prospective, Observational trial

60 herbs, Telemedicine, Consult, pattern differentiation, herbal Rx, f/u at 24, 48 hours, 3,6, and 12 months.

2 expert clinicians evaluated each patient in front of 50 tele-students.

Preliminary data; 57 patients, 35F/22M, 45.7 average age, 195 treatments,

**10 long haulers** (fatigue, fever, dyspnea, body aches, sore throat)

49/57 resolved.

Interior formula Liu Jun Zi Tang

Exterior formula Gui Zhi Tang

Pivot on interior/exterior Xiao hui xiang  
In patients where herbs were less than fully effective, pts were referred for acupuncture.

**Andrew Shubov (UCLA/UCSD)**

Qing Fei Pai Du Tang (QFPD) for COVID-19

4 formulae/ 21 herbs Supports host immunity, recommended by China.

He reviewed protocol, all the problems of creating this trial.

In fact, clinical trial is just beginning, like most active studies recruitment is poor because COVID cases are down.

“System is inadequate for use during a pandemic”

**PANEL Global Response to the Pandemic**

Quifu Ma, Lisa Taylor-Swanson, Lisa Conboy, Andrew Shubov, Weidong Lu, Claudia Witt, Jianping Liu

In China, all cases hospitalized, post hospitalization retrospective analysis.

20,000 cases Wuhan, have new study to assess clinician reasoning, 2-3 sentence descriptions of clinical thoughts.

**Long hauler management** (fatigue, dyspnea, CT lung scarring, anxiety/depression) 50 variable symptoms Treatment is INDIVIDUALIZED CARE. Treatment with acupuncture and herbs.

Noted T2D after COVID-19

Manage acute cytokine storm features with vagal nerve stimulation.

National Database established for 60 Chinese Herbs

**KEYNOTE: Acupuncture and Whole Person Health**

**Helene Langevin** (director NIHCH)

**New Strategic Plan FY 2021-2025 Whole Person Health (WPH)**

WPH approaches acupuncture research as more than just pain research. It includes acupuncture being used for enhancing and restoring health.

**Multiple Component Therapeutic Inputs**

“Multi-modal approach to Integrative Health” John Weeks, JCAM 24:3:248.

Seeing the same world with different diagnostic filters influences the diagnostic and theoretical frameworks represented.

Interoception is an area of interest, the processes by which the brain senses itself, interprets, integrates, regulates signals from within. From viscera and proprioceptors.

Proprioception is more than joint position sense, sensory neurons in fascia, CGRP (+) neurons, stretch triggers a-delta fibers, and the receptive field expands with inflammation.

“Allodynia vs deep tissue allodynia”

Over time sensory inputs change due to stiffness/chronic changes in the tissue structure.

De Qi, mediated by deep tissue afferents, associated with activation in right anterior insula, and de-activation in the prefrontal cortex by fMRI.

WHOLE PERSON RESEARCH, conference coming in the Fall/NIHCH, new bridge to AI in past 2 weeks. Data for AI are best when they are gathered in AI data ready format. The NIHCH is

Interested in **Clinician Scientists**.

## **Tribute in Memory of Hugh MacPherson**

Peter Wayne, Richard Hammerschlag

### **MENSCH, SAR scholarship fund in Hugh MacPherson's name**

a new fund within SAR to support research, presentations, attendance etc..

## **MEMBER SYMPOSIUM 1: The Role of interoception in traditional East Asian medicine**

**Vitaly Napadow** (Martinus Center for Biomedical Imaging Mass. General.)

**RAVANS**, Respiratory-gated Vagal Afferent Nerve Stimulation,  
Acupuncture inspired neural modulation.

Interoception includes visceral sensors, proprioceptors, non-neural influences (molecules, cytokines, hormones)

Breathing is both automatic and volitional, afferent vagal fibers terminate in the Tractus Solitarius (NTS), respiration affected by cognitive and emotional states.

NeiJing, Ch27, At the end of exhalation, insert the needle

Vagal nerve stimulation (VNS) used in epilepsy, RA, IBD, Bipolar disorder, depression, migraine, and more.

RAVANS is a non-invasive alternative.

Auricular Branch of the Vagus Nerve (ABVN) innervates the concha, Cymba > Cavum, and synapses in the NTS. The NTS influences the Locus Coeruleus (LC) and Raphe Magnus (RM), it also affects the nucleus ambiguus, this influences the efferent vagal fibers to the thoracic viscera. The heart slows with exhalation, respiratory sinus arrhythmia, a sign of vagal tone.

RAVANS is used in expiratory phase. eRAVANS results in ipsilateral activation of the NTS.

Inspiratory phase iRAVANS did not activate the NTS.

This eRAVANS delivers a one second pulse during exhalation. It maximally activates the NTS, LC, and RM. High frequency stimulation works best. 100 hz > 25 hz > 10 hz > 2 hz.

2012 RAVANS used successfully for pelvic pain, less hyperalgesia, less anxiety. In fact, VNS improved pain may be due to less negative affect, improved mood.

In LBP study pairing RAVANS with MM, the patients with the greater negative affect showed the most response to transcutaneous VNS.

### **Lisa Taylor-Swanson (SIEAM)**

Does acupuncture alter interoceptive awareness (IA)?

Anecdotally patients report feeling more in tune, aware after acupuncture.

MAIA measures Interoceptive Awareness, emotional awareness, this is connected to the ability to regulate and trust internally generated sensations, the higher MAIA score, the better emotional regulation (ER) capacity.

Treatments consisted of the emotional gates MH6/TH5.

N-21, Measured MAIA before and after one acupuncture treatment for pain.

Measured MAIA, DERS, BPI, Areas of pleasure and pain.

Results were increased MAIA numbers after acupuncture.

**Peter Wayne** (Osher Center for Integrative Medicine, Harvard)

Do Tai Chi and Qigong make sense?

Can you improve tactile activities and postural controls?

Improved kinesthetics after Tai Chi, improved feeling in hands and feet in diabetic neuropathy patients, learn to “listen with hands”, improved plantar sensation, tactile acuity (monofilaments) after Tai Chi.

Postural awareness scales improve after Tai Chi or home exercise program (HEP).

Chen style for LBP did not affect pain acuity but did affect ruminations and catastrophizing, speculation on possible vagal mediated effects?

Qigong for post-surgical mastectomy pain, small study, improved body listening, body trusting, and emotional regulation.

Interoception is a “whole body sensation”, “tensegrity is the medium of haptic transmission.”

Neuromyofascial, breathing as a coordinated behavior, 6 healing sounds, Dan Tien all represent avenues of increasing IA.

### **PANEL Q/A Interoception**

Lack of research demonstrating any correlation of ear point sensitivity to probe and point selection relevance? (VN)

### **MEMBER SYMPOSIUM 2 Is complexity science necessary for the study of East Asian Medicine during the COVID-19 pandemic?**

Complex adaptive system (CAS) science applied to East Asian medicine.

Complexity science as a framework for understanding East Asian Medicine.

Complexity research to gather evidence on how acupuncturists make clinical decisions.

Is acupuncture being studied as a complex intervention?

Complexity science in the Pandemic: Designing and executing complexity-informed research.

### **GENERAL SESSION**

#### **Global Perspectives on Acupuncture and Traditional East Asian Medicine**

**Terje Alraek** (Norway) long haulers (LH) with fatigue and dyspnea

**Stefan Costescu** (Romania) questionnaire, N=70, 30 with symptoms post COVID consistent with global Spleen Qi depletion. Appearance of T2D post COVID

“Kidney suffers the most”

**Dominik Irnich** (Germany) 40% of COVID (+) pts symptomatic up to 12 weeks, after 12 weeks LH Fatigue, dyspnea/cough, headache, myalgia.

Treatment Guidelines:

Fatigue: Qi deficiency, Spleen Qi deficiency, Kidney Qi deficiency, cold invasion

ST36, SP6, SP3, KI3, CV4, BL20

Cough: Lung Qi and Kidney Qi deficiency  
LU5, LU7, MH6, LU1, BL13-15

Headache: dampness  
ST8, ST40, LR3, GV20, GV24.5, LI4

Myalgia: Spleen Qi deficiency, dampness  
SP6, LI4, ST36, GB34

Yair Maimon (Israel) LH with fatigue, anosmia, dyspnea, anxiety/depression, sleep problems  
TCM diagnosis: Qi deficiency Lung, Kidney, Spleen, Liver, and Heart, along with Liver stagnation.  
Anxiety/Fear/Anger were strong factors In Israel where 2 injections were mandated within 3 weeks and after the 2<sup>nd</sup> vaccination there were side effects related to 1. Premorbid condition and 2. Triggers for unusual symptoms, allergic, skin reactions (Lung), immune system reactions with need to reduce heat from Yang Ming, using LI4, reducing heat from Shao Yang useful for fever and muscle pain.

**Olivier Cuignet** (Belgium) post COVID numbers growing LH- fatigue, dyspnea, cough, myalgia, anxiety/depression, memory/concentration problems, dizziness.

**Henri Truong Tan Trung** (France)

**Tsai** (Brazil) advice only

**Ari More** (Brazil)

#### **PANEL DISCUSSION Q/A**

Sleep problems, usually related to premorbid condition. Patients can present with deficiency or excess.

Usually, problem is premorbid Yin deficiency. Tx with Yin Qiao Mo?

Anxiety, fear not necessarily from having COVID GV20, GV24.5. Sometimes just being around it.

Anosmia, hyposmia LI20, Bitong, GV24.5

Consider as Lung Qi deficiency (smell/taste), add KI gives a better response

Yin Qiao for anosmia Post COVID?

Myalgia, like fibromyalgia

Dr Tsai has book on Post COVID Syndromes, fatigue, chronic pain, insomnia, anxiety/depression

“Acupuncture especially good for health care professionals”

“Myalgia is due to immune response in muscles, low level inflammation, not myofascial” (DI).

Acupuncture can be very effective for Post COVID symptoms.

#### **SYMPOSIUM 2: Acupuncture and the Treatment of Chronic Physical and Emotional Pain**

**Chad Brummett** (Univ of Michigan)

Opiate prescribing down but opioid ODs have doubled during COVID pandemic. Contributing factors include anxiety/depression, personal loss, and social isolation. Dr Brummett recommends more use of Buprenorphine.

His Post COVID patients have pain, fatigue, myalgia, weakness, headache, and memory problems, “looks like Fibromyalgia syndrome”, centralized pain condition.

**Rick Harris** (Univ of Michigan, Anesthesia)

Insular neurotransmitter imbalance and Associated Connectivity in Fibromyalgia is Intertwined with Pain and Acupuncture Analgesia.

Due to allodynia of FM, he needed a sham without somatosensory afference, and used mock laser (ML). In FM there is altered function/altered structure/altered neurochemistry.

Studied FM patients; protocol ST36-ST36, SP6-GB34, LI4-LI11, LR3, GV20, Shen men; 8 treatments, 2/week, fMRI before and after

EA and ML decreased pain severity, EA > ML.

EA group showed greater sensory/pain reduction and increased resting state connectivity.

EA group showed enhanced connectivity with posterior cingulate cortex (PCC) and medial prefrontal cortex (PFC), SSII/SSI linked to anterior/posterior insula.

ML group showed decreased insular connectivity.

In EA group, as SSI and anterior Insula connectivity increases pain reports are decreased.

H-MRS, proton weighted magnetic resonance spectroscopy reveals GABA spike.

GABA both ionotropic and metabotropic. Opens Cl<sup>-</sup> ion channel and inhibits action potentials.

In FM patients, EA causes an increase in connectivity between the SSI and the anterior insula, which corresponds to increased GABAergic activity, and a reduction in pain.

In FM patients, anterior insula GABA is reduced, blocking GABA synthesis in the insula results in a lowered pressure pain threshold.

Long term excitatory potentials (LTP) have been identified in the dentate area of the hippocampus, spiking after strong stimulation that persists. LTP can occur with GABA circuit inhibition, called long term depression (LTD).

EA reduces pain in patients with FM by increased GABAergic signaling in the anterior insula.

“I am getting the whole body more connected”

**Jun Mao** (Memorial Sloan Kettering)

Acupuncture for Cancer Pain; RCT for chronic msk pain in cancer survivors; JAMA, Mar 2021  
10 treatments.

145 patients got EA (4 points near the pain, 4 body points)

143 patients got BFA

72 patients got usual care

Best results were EA > BFA > usual care.

**Rosa Schnyer** (Univ of Texas, Austin School of Nursing)

Distress of the Human Heart,

Anxiety/depression high before COVID. Mental suffering needs treatment.

“All hands-on deck” moment

Pain↔Mood, chronic pain associated with anxiety/depression, PTSD, substance abuse.

Chronic pain and depression are co-variants of the same disorder, characterized by

↓ monoamines.



Since COVID, per the CDC, double rates of anxiety/depression (31%), substance abuse (13%), stress related symptoms (26%), suicidal thoughts (11%); 85% report a reduction in well-being. Co-occurring global mental health epidemic, increased incidence in health care workers. Post COVID more anxiety/depression and post traumatic symptoms.

Post COVID Long haulers (LH), neural inflammation, microglia inflammation, elevated HPA axis activity.

Acupuncture helpful in stress related symptoms.

Depression, Cochrane reviews in 2005, 2010, 2018 positive for acupuncture.

Zhang treats depression with dense cranial electrical stimulation.

Anxiety studies less conclusive than depression studies.

Anxiety and PTSD, RCTs meta-analysis. DoD is using acupuncture for PTSD.

Tai Chi/Qigong affect HPA axis.

Patient health promotion with self-care, positive neuroplasticity, improved emotional regulation; acupuncture is used for a neuroendocrine re-set.

### **PANEL DISCUSSION, Q/A**

Suzie Zick, Ben Kligler, Chanta Van Laanen, Henry Buchtel, Chad Brummett, Rick Harris, Jun Mao, Rosa Schnyer

#### **Panel Q/A Can Acupuncture Be Covered by Mainstream Health Care Reimbursement?**

Discussion:

Yes, code for physical and mental features.

Rapid Response Training with Rosa Schnyer.

Language for Inter-Professional Communication.

### **MEMBER SYMPOSIUM 3: The Effect and Mechanism of Acupuncture on Chronic Pain**

**Cun-Zhi Liu** (Beijing University of Chinese Medicine)

For knee osteoarthritis (OA), there is a dose effect relationship, three times/week is best, compared EA, MA, sham; EA and MA better than sham.

Tx: ST35, MN-LE-16, LR8, GB33, Ashi points both active/latent, Adjunct points chosen by affected channel. EA with 2hz-100hz alternating.

Effects partly mediated by  $TNF\alpha$ , IL-1 $\beta$ , IL-13

**Ling Zhao** (Chengdu University of Traditional Chinese Medicine)

Migraine, JAMA 2017, (IF:20.767); Cochrane review-safe and effective.

Study of migraine prophylaxis, 249 patients, verum Acupuncture vs sham vs waiting list.

Acupuncture treatment Basic: GB20, GB8

Optional: TH5, GB34, BL60, SI3, LI4, ST44, LR3, GB40

20 treatments, 6 months monitoring.

↓ days with migraine, ↓ migraine meds used, ↓ migraine frequency, ↓ depression, ↑ QOL

Central mechanisms: cerebral structure/function changes. Function: damaged network  
Structure: Gray matter decreased in ACC and caudate; White matter abnormal, worse with depression.

Migraine damages the brain (ACC, Insula, Brainstem, Basal Ganglia)

12 patients underwent fMRI, right insula linked to Shao Yang points vs Tai Yang or Yang Ming points. More responsivity at ACC, Insula, Thalamus, Hippocampus, SSII. It especially targets the Acc and hippocampus which both show diminished function in migraineurs and pts with depression.

After acupuncture there is a decreased ACC connectivity (inhibition)

**Xinyan Gao** (CACMS, China)

Dorsal root ganglion (DRG) neurons involved in mediating visceral pain and referred somatic sensitization.

IBD, IBS, Crohn's often refer pain to the soma. Somato-visceral convergence.

DRG response to iatrogenic colitis  $\Rightarrow$  homo-segmental L6 (in the lower back) and hetero-segmental L4 (in the hind paw) effects.

L6 DRG responds to colorectal distention (CRD), L6 mediates homo-segmental somatic sensitization on the low back, increased brush sensitivity, L4 DRG responds to paw pinch, not CRD.

CRD activated more L6 neurons in TNBS colitis

Chronic and acute colitis induce homo-somatic sensitivity in DRG in response to low back brushing with more fluorescent intensity.

Chronic and acute colitis evoked hetero-somatic hyperalgesia in L4 DRG to hind paw pressure.

In vivo  $Ca^{++}$  imaging is a novel and efficient way to study whole DRG neurons and neuronal interactions in visceral and somatic referred pain.

**Man Li** (Dep't of Neurobiology, School of Basic Medicine, Tongji Medical College)

Can EA affect the transition from acute to chronic pain?

DNIC, when a noxious stimulus is applied to any region of the body, the analgesic effects can be observed in other regions. DNIC may reflect neuronal plasticity in descending NE and 5-HT pathways' response predicts chronic pain events. EA elevates central endocannabinoids and relieves acute pain. Can endocannabinoids affect the DNIC response and in this way prevent acute pain from becoming chronic?

CB2 receptors (CB2R) are involved in the EA effect on pain hypersensitivity but not DNIC function. 2 Hz works best for reducing pain hypersensitivity, 1mA best for improving DNIC response. EA prevents progression from acute to chronic in KOA mice.

KOA mice have biphasic response to DNIC, initial increased response, later a diminished transition from acute to chronic.

EA at 2 Hz and 1 mA reverses the reduction of CB1 but not CB2 receptor expression in the midbrain but not medulla or spinal cord in KOA mice.

EA significantly reverses the reduction in CB1 receptor expression in GABAergic neurons not Glutamatergic neurons in the PAG.

EA reverses the reduction of 2-AG but not AEA concentrations in the midbrain of KOA mice. EA up-regulated CB2R expression and down-regulated IL-1 $\beta$  expression in knee meniscus by activating CB2R. CB2Rs exert peripheral analgesic effect.

Conclusion:

CB1-Rs on GABAergic neurons are involved in EA effects of DNIC. They activate descending pathways.

CB2-Rs are involved in EA, but have no effect on DNIC, local effects only, not involved in the acute to chronic process.

{{MEMBER SYMPOSIUM 4: Women's health can be a pain! How research informs acupuncture practice for pain conditions in women's health

Kate Levett, Debra Betts, Claudia Citkovitz, Lisa Taylor-Swanson}}

Endometriosis and the Inflammatory Triad, endometriosis, gut condition, depression. Genetic link between endometriosis, migraine, depression, and IBD. Model of systemic inflammation presented using a TCM lens to understand both systemic inflammation and auto-immunity.

Acupuncture indications reviewed.

Pregnancy related lower back and pelvic pain

The disparity between the research literature and the concerns of acupuncture practitioners is limiting treatment opportunities.

Acupuncture and acupressure for pain management during birth

Acupressure performed quite well.

Increased pain during the menopausal transition: another neglected experience of women.

Overview of pain during menstrual transition. Use of acupuncture and herbal medicine, EBR.

### **MEMBER SYMPOSIUM 5: Implementation of Effective Integrative Health Programs for Patients with Long COVID Symptoms in Various Health Care Settings**

**Ka-Kit Hui** (UCLA Center for East-West Medicine)

Acupuncture for pain to avoid opiates.

Acupuncture is safe, effective, affordable, and accessible.

Personalized medicine.

COVID Incubation phase, Mild phase, Severe phase

Role of Vagus nerve in controlling inflammatory cascade phase.

JADE SCREEN to tonify Qi, protect from pathogens, disperse wind, discharge heat, dispel dampness.

Long haulers, post viral, chronic fatigue syndrome, post traumatic syndrome.

**Jianping Liu** (Center of Evidence-based Chinese Medicine, Beijing University of Chinese Medicine)

Variable manifestations of long haul COVID-19.

SAR-CoV-2 binds to ACE receptors which are widely distributed, resulting in multiple organ system involvement. Three subtypes:

1. Fatigue, weakness, disturbed sleep, anxiety/depression
2. Generalized pain, respiratory symptoms, cardiovascular symptoms, psychosocial trouble, hair loss.
3. Fever, cough, dyspnea, productive cough, palpitations, chest tightness, fatigue, diarrhea

Systematic review on Long haulers 2/2021. 145 studies. 55% fatigue/pain

20% abnormal lungs

24% neurologic/olfactory

Evidence of TCM for COVID-19 Long Haul

“Liver affects emotions, anxiety, depression, PTSD, insomnia, somatization of fear”

2 studies using pattern differentiation demonstrated that the early use of herbs for deficient Lung Qi, deficient Spleen Qi, support of immune function.

Guang gu Jisheng is good for cough, fatigue, dyspnea, sweating.

Chinese Herbal Medicine (CHM) plus Qigong is best for Qi and Yin deficiency.

In 2003, SARS epidemic, CHM improved lung function, reduced clinical symptoms, improved immune function, improved mental disorders.

29 Ongoing TCM studies, trouble recruiting patients in China.

**Weijun Zhang** (UCLA)

IMPLEMENTATION SCIENCE

SARS/MERS/SARCoV2 compared.

Following all CoV infections there have been chronic fatigue syndromes, diminished lung concerns, myalgias, neuropsychiatric symptoms, depression, anxiety, sleep disturbances..... with COVID- 19 hair loss, and Kidney involvement appear to be unique.

Case presented: Lung Qi and Spleen Qi deficiency, Global Qi and Yin deficiency.

Role of local climatic factors, Wuhan vs So. California.

**Grant Chu** (Associate Director of Education UCLA Center for East-West Medicine)

UCLA Specialists in E/W medicine/TCM based treatments, Direct referrals, ambulatory

No COVID testing requirement to enter treatment.

Nausea, fatigue, dyspnea, chest pain/tightness, cough, loss of smell, hair loss, diarrhea, myofascial pain, etc.

Six months into symptoms course 36 had severe, disabling fatigue, daily persistent headache, anxiety and depression, DIMS with totally normal workups.

Treatments were 2/week for 3 weeks. Patients received acupuncture, massage, were prescribed American ginseng. The acupuncture was bilateral LR3, LI4, MH6.

Patients all improved.

TCM helps treat at the level of societal/healthcare infrastructure breakdown in family, society, cultural institutions.

{{MEMBER SYMPOSIUM 6: From predictors, challenges to solutions for acupuncture trial designs: views from patients, clinicians, and trialists  
Lixing Lao, Dawn Richards, Yuqing Zhang, Klaus Linde, Jun Mao, Xiangshong Jing, Rick Harris}}

1000 acupuncture trials published/year since 2010.

What can predict acupuncture treatment effect?

Settings, methodological rigor, therapeutic areas, and variations of practice.

Round table discussion on designing and conducting high quality acupuncture research

Choice of optimal research questions, patient's expectations and its impact on treatment effect, choice of comparators, individual patient vs public health perspective, how to engage patients in the design of research.

## **GENERAL SESSION**

### **SYMPOSIUM 3: Acupuncture Research and Health Care Disparities**

**George Kaplan** (Institute for Integrative Health, Oakland, CA)

Race/Socioeconomic/Residence are the big three factors.

Susceptibility, Exposure, Lack of access to care, Loss of jobs, Loss of money are the operational predictors.

**Maria Chao** (Associate Professor UCSF)

"the worried well" Studies of health care disparaged.

1. Integrative Pain Management.  
Multi-disciplinary; Outcomes showed decreased pain interference, better social support, feelings of self-efficacy.
2. Group Acupuncture for Neuropathy.  
Public Health Acupuncturists Lac  
Low cost, high volume, better economic access.  
40 low-income patients, ESL 50%, with diabetic neuropathy, numbness 93%, pins/needles/tingling 86%.  
Acupuncture treatments were 1-2/week for 12 weeks; Outcome Improved QOL  
Group acupuncture is less effective than individual acupuncture.
3. Nutritional Program for the community.

**Robert Saper** (Chair, Department of Wellness and Preventive Medicine, Cleveland Clinic)

Belmont Report- principle of justice in research.

4 barriers- Awareness, Availability, Affordability, Accessibility

Go to where the patient is.

"Health literacy is the best predictor of health"

Low health literacy, patients deal with symptoms only

High health literacy, patients deal with prevention  
He recommends against deep, lengthy descriptions about interventions, in this underserved population..  
“sterile needles inserted to reduce pain”

**Peter Wayne**

Tai Chi taught through the school system buildings.

**PANEL DISCUSSION Q/A**

What happens when the study is over?

The best programs seemed to be integrated with the community, its members and institutions.

After the researchers have gone the community remains.

Relationships are at the heart of every successful venture of this type.

**Belinda Anderson**

**Desiree Walker**

“Belonging”, as a valuable patient feeling to engender. How to go about changing policy for acupuncture reimbursement?

**Patricia Botet**

LAcS now privileged and practicing at San Francisco General Hospital for the first time in 100 years.

**AWARDS**

**Wing Fai Yeung. Acupressure for Insomnia**

200 patients, either self-administered acupressure or sleep hygiene.

They chose patient with Insomnia Index  $\geq 10$ . No shift workers.

2 sessions; trained to identify and treat GV20, GB20, MH6, HT7, KI1, CV12

They treated nightly for 12-13 minutes, study duration 4-8 weeks,

Significant reduction in Insomnia Index after self-administered acupressure at 4 and 8 weeks.

Improved sleep latency, sleep efficiency, sleep time and decreased anxiety/depression,

improved QOL.

**Gil Ton. Decreased Risk of Coronary Heart Disease in Taiwanese patients who received Acupuncture for Osteoarthritis.**

Nationwide, matched cohort study, N of 87,453.

Acupuncture less costly to care for, much lower risk of CHD,

**Alessandra Anzolin Multi-brain functional connectivity during electro-acupuncture in patient-clinician dyads: an electroencephalographic (EEG) hyperscan approach.**

Study of therapeutic alliance.

The interaction style between chronic pain patients and acupuncturists modulates neural activity and synchrony, influencing effectiveness of the treatment.

EEG hyper-scanning synchronous neuroimaging. Hair net EEG montages.

N=22 dyads, augmented 11, limited 11

EEG/fMRI setup-Limited (cool, detached) or Augmented (warm, listening) Intake- Experimental pain task-Acupuncture treatment

Pain from compression cuff around calf in patients with chronic LBP. Limited intake lessens cuff pressure, augmented intake after cuff EA between SP10 and ST34, then they all receive a protocol for their chronic LBP.

Treatment: 11-13 acupoints

7 fixed points Bilateral KI3, Bilateral BL40, GV3, stimulated manually at 0, 10, and 20 minutes; and one Quadratus Lumborum (QL) ashi point-paired electrically with an ipsilateral BL23.

4-6 ashi points QL area (R/L), PSIS (R/L), BL36 (R/L), GB30 (R/L), sacral edge (R/L)

Both groups improved after acupuncture especially with the augmented group, this correlates with practitioner's perception of successful response to cuff pain EA treatment.

Patients reported greater therapeutic alliance and clinician warmth scores.

Brain-Brain connectivity, multiple brain MVAR. Hyper-brain connectivity.

EEG theta band activation

Augmented-insula and mid cingulate (pt. and clinician) during NT- stronger empathy processing for NT.

Limited- middle frontal gyrus, precuneus, insula, mid-cingulate (pt. only)- greater nociception for No Treatment.

Interbrain (IB) connections modulated by EA, number of IB connections from Clinician to Pt. higher in the no treatment group, "empathy, vicarious pain". Number of IB connections from Pt. to Cl. Higher in the treatment condition.

### **Zhipeng Ning. Spinal adiponectin is involved in electroacupuncture-produced analgesic effects.**

Adiponectin (APN) comes from adipose tissue, enters blood vessels and can enter the spinal cord across the BBB, spinal cord shows AdipoR1 and AdipoR2 receptors of neurons, inhibits central sensitization.

The analgesic effects of EA on the sciatic nerve involve APN at the spinal level in a mouse model of thermal hyperalgesia or mechanical allodynia. APN depleted mice have no response to EA, Intrathecal APN helps decrease pain., APN increases during EA, EA 10 Hz., 20 minutes at GB30

