

A recent search using the National Center for Biotechnology Information U.S. Library of Medicine National Institutes of Health database for published articles on French energetic acupuncture identified 11 articles. There were 5 articles published by Helms and at least one co-authored by Dr. Richard Niemtow (Gambel, Helms, Pock, Burns, & Baxter, 2006): a retired military doctor who developed and marketed Battlefield Acupuncture, a five-point auricular (ear) protocol designed for acute pain.

Pain management is one of several predominate uses of acupuncture. A recent systematic review of auricular acupuncture (stimulation of areas on the cartilage of the outer ear with acupuncture needles or semi-permanent needles) for substance abuse identified 119 studies with rigorous design and control of confounding variables, of which 85 acknowledged the efficacy of acupuncture for treating addiction (Motlagh, Ibrahim, Rashid, Seghatoleslam, & Habil, 2016). Most of the 85 articles cited the National Acupuncture Detoxification Association (NADA) protocol. The Battlefield Acupuncture protocol appears to be like the NADA acupuncture protocol in design and expanded use (Clearfield Medical Group, n.d.), but appears to be marketed and taught before it was researched or found effective for original intent and expanded use.

Given the biomedical research that supports the Chinese medical theory, the application of the NADA protocol to address substance abuse is supported by evidence, clinical practice, and patient experience. The diagnostic criteria for substance dependence coincides with various symptoms including failed attempts to stop using the substance, a preoccupation with the product, and changes in behavior (American Psychiatric Association, 2013). The feeling of not being able to control cravings or shift the preoccupation may become more emotionally frustrating if the user experiences physical withdrawal symptoms. The NADA auricular acupuncture protocol has the potential to offer physical, mental, and emotional support (Collis, 2008; Shwartz & Saitz, 2000).

The (NADA) protocol was designed by a Psychiatrist and licensed acupuncturist as an adjunct treatment for addiction (Raith, Kutschera, Müller, & Urlsberger, 2011). The NADA protocol consists of three to five small acupuncture needles placed in specific points in each outer ear (D'alberto, 2004). Reports of successful outcome measures for the intended use included increased program retention, more optimistic and cooperative attitudes toward the process of recovery, improved sleep, and reductions in cravings, anxiety, and pharmaceuticals (Otto, 2003; Shwartz & Saitz, 2000; Stuyt & Meeker, 2006). The biomedical finding of NADA acupuncture includes increased levels of enkephalin, epinephrine, endorphin, serotonin, norepinephrine, and dopamine in the central nervous system/ plasma that may quell substance abuse (Cabioglu, Ergene, & Tan, 2007). The NADA organization developed a certification program so that providers who are not licensed acupuncturists can use this evidence-based method for substance abuse, stress, poor sleep, anxiety, and pain relief.

#### Mechanism of NADA Acupuncture Protocol and Points

Both addiction and posttraumatic stress manifest with a range of unpleasant emotions that the sufferer is expected to control by way of behavior (Kesebir, Luszczynska, Pyszczynski, & Benight, 2011). This suppression of emotion can lead to added frustration, which can be further challenging for both the client and counselor. Cabioglu, Ergene, and

Tan (2007) reported that the auricular lung point is important in terms of substance withdrawal since it is located at the most superficial branch of the vagus nerve. Stimulation of the vagus nerve is thought to produce neural impulses that ultimately initiate the reward cascade that is produced when receptors in the nervous system are stimulated. Stimulation of the Liver auricular point is considered to help soothe tension and anger while the Shen Men auricular point calms the mind (Chih-Chieh et al., 2007). Additionally, the auricular Kidney point is considered to abate fear and, most importantly, the auricular Sympathetic point calms the nervous system (Shen, Hsieh, Chang, & Lin, 2009).

#### Mechanism of Battlefield Acupuncture Protocol and Points

Under the heading Mechanism of Action, Niemtzw's paper on Battlefield Acupuncture (2007) generalized that "most likely the Battlefield methodology favors the processing and the modulation of pain in the Central Nervous System involving the hypothalamus, thalamus, cingulate gyrus and cerebral cortex structures. fMRI research studies from Dr. ZH Cho suggests involvement of these structures." One interpretation from this article is that the Battlefield Acupuncture protocol, which has been altered several times since being introduced, was based on loose theory without randomized clinical trials to support safety or efficacy before experimenting and testing on members of the military, veterans, and family members; some of our nation's most precious and protected classes.

Several years later, Dr. Neimtzow explored functional magnetic imaging (fMRI) on the acupuncture points he selected for his protocol. In his book, *Auriculotherapy Manual: Chinese and Western Systems of Ear Acupuncture* (2014), page 352, Terry Oleson included Dr. Neimtzow's fMRI research conducted from the Acupuncture Center of the U.S. Department of the Air Force on patients receiving Battlefield Acupuncture. "The measured increase in fMRI activity of the anterior cingulate gyrus, thalamus, hypothalamus, and periaqueductal gray was prominently reduced after stimulation of the Battlefield Acupuncture points on the auricle." These findings may explain why so many Soldiers/veterans with chronic pain and post-traumatic stress respond unfavorably to the Battlefield Acupuncture.

Post-traumatic stress can result in a central nervous system (CNS) neuron sensitization (He et al, 2016) that affects certain areas of the brain while chronic pain can result in central sensitization of the CNS (Breivika, Stubhauga, Butler, 2017; Lee & Goto, 2011). Research in post-traumatic stress sensitization has shown increased activity in the amygdala and decreased activity in the cingulate cortex (Clausen, Francisco, Thelen, Bruce, Martin, McDowd, Simmons, & Aupperle, 2017). Increased activity, demonstrated with fMRIs, in the cingulate gyrus, is associated with decreased levels of pain (Nakata, Sakamoto, & Kakigi, 2014; Vogt, 2005). Thus, decreasing cingulate gyrus activity through the stimulation of acupuncture on that point may increase pain and perpetuate pain dysregulation, especially in cases post-traumatic stress comorbidly.

To date, there exists limited information regarding research and biomedical mechanisms of the Battlefield Acupuncture approach to postulate the use as evidence-based. A recent PubMed search for articles with the terms auricular acupuncture AND pain with the filter clinical trial, identified over 300 articles. Only 2 articles were clinical trials for Battlefield auricular acupuncture. A recent search for published articles for Battlefield auricular acupuncture using the National Center for Biotechnology Information U.S. Library of Medicine National Institutes of Health database, identified 15 articles. Several articles on Battlefield Acupuncture have been authored or co-authored by Dr. Richard Niemtzw.

#### Discussion

Considering the tuition fees charged by Helms Medical Institute (HMI), along with travel, food, and lodging expenses each week participants attended the course, the average cost for sending military and VA physicians to the Helms program could have averaged \$30,000 per person. One follow-up contract for prior graduates of the HMI non-accredited program for Battlefield Acupuncture refresher training was \$190,000 (Department of the Navy, 2011).

In 2013, a grant to teach Battlefield Acupuncture across military and VA clinical settings, recently culminated in the certification and training of over 2,800 non-licensed acupuncture providers (Defense & Veterans Center for Integrative Pain Management, 2017). In May 2017, an officer in the U.S. Army was sporting semi-permanent needles in a slightly inflamed ear (Figure 1. Soldier Suffering Incorrect Battlefield Acupuncture;). The soldier reported that a Pharmacologist at a military treatment facility, who recently completed the Battlefield Acupuncture training, performed the acupuncture about five days prior. The acupuncture points were in proximity to the Battlefield Acupuncture points, but remarkably off the target ear acupuncture points Omega 2, Shen Men, Point Zero, Thalamus, and Cingulate Gyrus (Figure 2. Diagram of Auricular Protocols).

The expense for non-acupuncture-licensed military and VA provider acupuncture preparation, privileging, and practice incurred by our tax dollars, to date, is beyond money, time and resources. The return on investment could have been significantly better if senior leaders had been adequately informed. It may now be concerning to consider that the military and VA providers who are considered the subject matter experts of acupuncture received expensive training that was not grounded in accredited education. A dissertation, outlining the value of medical acupuncture, submitted by Dr. Joseph Helms (2005) as a requirement for the degree of Doctor of Theology from Integrative Healthcare at Holos; a non-accredited university (Holos University, 2017), expresses the limits of the esoteric acupuncture differential diagnosis method. Helms' dissertation describes asking the patient what color he is thinking of at that moment. The stated color then becomes the basis for diagnosis. In other words, if the patient is thinking of the color blue, the patient is then diagnosed with a kidney pathology and the preponderance for the emotion of fear. This is not consistent with authentic Chinese medical practice and is neither logical from a biomedical nor Chinese medical perspective. It is these types of non-quantifiable mysterious ideologies that makes professional acupuncture practice appear questionable (Greenwood, 2008).

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