

EDITORIAL

Acupuncture: Past, Present, and Future

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During the past 40 years, acupuncture, a therapeutic technique of oriental medicine, has become more and more popular, evolving into one of the most utilized forms of complementary integrative medicine interventions in the United States. In fact, more than 10 million acupuncture treatments are administered annually in the United States alone.¹ Its rise in popularity, particularly in the West, can be attributed in part to its effectiveness for pain relief and in part to the fact that scientific studies have begun to prove its efficacy.

Consider oncology treatment. Studies conducted on both humans and animals suggest that acupuncture may strengthen the immune system during chemotherapy and can reduce the side effects of nausea and vomiting. Studies done on animals support the use of electroacupuncture to relieve cancer pain. Other studies have examined the role of acupuncture in stimulating immune function, including increasing blood cell count and enhancing lymphocyte and natural killer cell activity.²

Perhaps one of the most promising signs for the future of acupuncture in the United States is the “Non-discrimination in Health Care” language of the Affordable Care Act (ACA). The language of the ACA prohibits discrimination against providers who deliver services that fall under the state-defined scope of practice.³ This ensures (in most cases) that health plans can no longer make it a requirement that acupuncture services be provided only by a medical doctor—a stipulation that meant that covered acupuncturists were required to have their acupuncture licensure and be an MD.⁴ Furthermore, in states such as California, complementary and alternative medical interventions such as acupuncture are now considered “essential health benefits.” Now that acupuncturists are defined as part of the covered healthcare workforce and coverage is mandated in states like California, the future of acupuncture looks wide open.⁵

Since the 1950s, Chinese scholars have researched Western medical knowledge and have begun to integrate it into acupuncture.⁶ By embracing this knowledge as well as modern technologies, the profession has been able to develop new and effective methods of treatment. A synthesis of Western and Eastern practices allows both Western and Eastern practitioners to enhance treatments and approach patients in a far more well-rounded and whole systems-oriented manner. An excellent example of this is scalp acupuncture, which we believe is the most significant development in Chinese acupuncture in the last 60 years. Scalp acu-

puncture fuses Western medicine with traditional Chinese medicine by locating representative areas of the cerebral cortex and influencing their physiology with traditional acupuncture needling techniques. This needling has the ability to influence the central nervous system and treat many kinds of nervous system disorders, including stroke, multiple sclerosis, Parkinson’s disease, traumatic brain injury, cerebral palsy, phantom pain, complex regional pain, posttraumatic stress disorder (PTSD), and spinal injury. With scalp acupuncture treatment, 80% to 90% of patients have showed improvement in paralysis, aphasia, and ataxia, and some patients are able to recover completely.⁷

The ancient practice of acupuncture started in China approximately 3000 years ago.⁸ The first documentation of acupuncture that described it as an organized system of diagnosis and treatment is in *The Yellow Emperor’s Classic of Internal Medicine*, which dates back to 100 BCE. By this time, the Qi (vital energy or life force) flow channels were well established, and the information likely stemmed from a compilation of traditions passed down over centuries.⁹ Gradually, the practice of acupuncture was honed and insertion points became more specified, until it became a standard practice in China alongside massage, diet, and herbs.

The first medical description of acupuncture by a European physician was in about 1680 by Ten Rhijne, who worked for the East India Company and witnessed acupuncture practice in Japan.^{6,10,11} Then, in the first half of the 19th century, there was a flurry of interest in both America and Britain, and a number of publications appeared in the scientific literature including a *Lancet* editorial article entitled “Acupuncturation.”¹² By mid-century, acupuncture had fallen into disrepute and interest lay dormant, though it was briefly resurrected in one edition of Osler’s textbook, in which he described dramatic success in the treatment of back pain with hatpins.¹³ Interestingly, this comment was deleted from subsequent editions.¹⁴ It wasn’t until nearly 300 years later that the United States caught up when acupuncture was used on a US Press Corps member after he received an emergency appendectomy in Beijing, China.¹¹ Following this, teams of US physicians toured China to learn more about acupuncture and its benefits, with a particular interest in its use for surgical analgesia.¹² When it proved to be unreliable at the time, the enthusiasm waned and acupuncture was dismissed as a sham practice. Despite this, patients for whom conventional treatments had failed turned to acupuncture in hopes that it might offer relief. As acupuncture slowly proved effective, studies were conducted proving its

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efficacy in pain management, nausea relief, and headache dissipation, among other things. Subsequently, a 1997 National Institutes of Health (NIH) consensus conference reported that there was positive evidence for acupuncture's effectiveness.¹³

During this lengthy period of time, from its discovery centuries and centuries ago to recent Western acceptance, the field of acupuncture has increasingly integrated the science and a growing evidence base of knowledge to accompany the development of new techniques and methods to treat patients. Outside of scalp acupuncture, types of acupuncture that have developed out of integrating modern medicine include electricity acupuncture (electroacupuncture) and laser acupuncture. Electroacupuncture combines ancient needling techniques with the modernity of electricity, feeding electrical pulses through the inserted needles. A 2006 study in the *American Journal of Chinese Medicine* (yet another example of Eastern-Western fusion) indicated that electroacupuncture reduces heart rate and was able to effect relaxation and calmness and reduce feelings of tension and distress.¹⁴ Laser acupuncture, which scientists began to experiment with in the 1950s, uses focused light in lieu of needles.¹⁵ This practice is particularly popular in pediatrics, as pediatric patients often are not receptive to needles. It is also proven to be as effective as traditional acupuncture, making it a very viable option in many circumstances.¹⁶

The bridge between Eastern and Western medicine has not only helped acupuncture progress and evolve but has enhanced its acceptance. A 1997 report from a Consensus Development Conference on Acupuncture recognized acupuncture as "widely practiced" by thousands of physicians, dentists, acupuncturists, and other practitioners.¹⁷ Additionally, the 2007 NIH Survey estimated that 3.7 US adults and 150 000 children had used acupuncture in 2006 and that between 2002 and 2007, acupuncture use among adults increased by approximately one million people.¹⁸

NIH-funded research indicates acupuncture as effective in treating migraines, arthritis, and chronic pain. The study, which involved data on nearly 18 000 patients, revealed that acupuncture is more effective than standard care and sham treatments.¹⁹ A 2004 study conducted in Sydney, Australia, that focused on the point P-6 (also known as Neiguan) as a point for treating postoperative nausea showed that those who received acupuncture treatment were 29% to get sick and 28% less likely to feel nauseous, in comparison to those who received sham treatment or no treatment.²⁰

Initially, acupuncture was used for pain management in the West. The majority of the public and medical practitioners are still not aware of the fact that acupuncture has been used in the East to prevent and treat many kinds of disorders for thousands of years. *Global Advances in Health and Medicine* has featured 15 articles that center on acupuncture, including its role in treating migraines; its ability to help veterans overcome PTSD; its efficacy in helping alleviate the effects

of multiple sclerosis and cerebral palsy; and its use in diminishing the pain, nausea, and anxiety pediatric oncology patients often experience.

Eastern medicine has accepted acupuncture both through intuition and through practice; its efficacy is proven by experience. Together, Western and Eastern scientists, researchers, and practitioners have taken this intuition to the next level and have been producing studies that prove that hard science does indeed support these practices. It is now time to push acupuncture to the next stage and make it accessible to all. We must bridge that last gap and promote our integration of acupuncture and modern scientific knowledge to new levels. Brain maps provided by functional MRI could be very useful in this; fMRIs that are conducted during acupuncture treatments can tell us differences between different acupuncture points, differences between effective and sham acupuncture, and differences due to the various methods of acupuncture and can further verify the undeniable effects of acupuncture.²¹ A 2010 study published by *Brain Research* and conducted by researchers at the University of York and the Hull York Medical indicated that acupuncture has a very significant impact on particular neural structures. Their analysis showed that acupuncture helps deactivate the areas within the brain that are associated with processing pain.²²

Studies such as these give us a glimpse at the potential research that can be conducted to further understand, and thus effectively utilize, the practice of acupuncture. Essential to this progress is that we begin to work together. To bridge the gap, teams of acupuncturists, doctors, physical therapists, professors, researchers, and neurologists need to work in conjunction toward the common goal of advocating for acupuncture and its many applications. Acupuncture—particularly in conjunction with other systems of care—has the ability to help alleviate so many ailments, and it is time that both the public and the medical world embrace it and use it for all it is worth. I hope you will join us in making acupuncture not just an option but a commonality.

Acupuncture for pain management has changed so many people's lives in past 40 years. The scientific research increasingly supports the use of acupuncture in the treatment of many conditions in addition to pain management. Increasingly, acupuncture practitioners are championing efforts to inform and educate medical professionals and the public on the widespread application and evidence base of acupuncture. Acupuncture coverage within insurance policies is now commonly available. Acupuncture research continues to demonstrate new treatment options, which are the basis for policy and reimbursement mechanisms to follow. The International Academy of Scalp Acupuncture in the United States expects to release a new documentary entitled *Hope* within the next year. This documentary highlights the movement and championing efforts within acupuncture use and practice in the West: a positive next step in making acupuncture available to all.

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