

Harmonizing Traditional Chinese and Modern Western Medicine: A Perspective from the US

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The current interest in traditional and complementary medicine in the United States is attracting attention in many parts of the community - the health care industry, governmental agencies, media and the public.¹ An increasing number of insurers and managed care organizations are providing benefits for traditional medicine, a majority of U.S. medical schools now offer courses covering traditional medicine,^{2,3} and, as Eisenberg's national studies have revealed, more people are using complementary therapies.^{4,5} To facilitate research on the effectiveness of alternative therapies, the National Center for Complementary and Alternative Medicine (NCCAM) received a budget of \$50 million in 1999. Recognizing the need to encourage quality and quantity of scientific information on botanicals, as well as develop a systematic evaluation of safety and efficacy of dietary supplements, two research centers were also established this year to investigate the biological effects of botanicals.⁶

Many patients are using traditional and modern medical paradigms concurrently, creating a need for the appropriate and smooth merger of the two medicines. The theories and techniques of traditional Chinese medicine (TCM) encompass most practices classified as complementary medicine in the United States, and have become increasingly important in the health care system.⁷ Traditional Chinese medicine is affordable, low tech, safe and effective when used appropriately. Ongoing research around the world on acupuncture, herbs, massage^{8,9} and Tai-Chi^{10,11} have shed light on some of the theories and practices of TCM. Evidence derived from vigorous research design¹² as well as patient demand are fueling the merger of TCM with modern medicine at the clinical level, while more academic researchers and institutions are becoming more interested in the potential of integrating these two healing traditions.

Acupuncture

Based on evidence reviewed during the 1997 NIH Consensus Conference, the NIH Consensus Development Panel conservatively recommended that acupuncture may be used as an adjunct treatment, an alternative, or part of a comprehensive management program for a number of conditions. The panel ascertained that acupuncture can be used to treat post-operative and chemotherapy induced nausea and vomiting, as well as post-operative dental pain. It was also recommended as an adjunct treatment or an acceptable alternative for addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, carpal tunnel syndrome, and asthma.¹³

Future clinical trials that test acupuncture within the framework of traditional Chinese medicine are likely to provide a more appropriate and clinically meaningful assessment of acupuncture efficacy than the current generation of clinical trials which use a diagnosis framed primarily in biomedical terms. The scientific rigor of current research must continue; however, the NIH approach towards data analysis is too strict and limits potentially useful indications. Unlike drugs, acupuncture is more akin to surgery and physical therapy in terms of therapeutic

modalities. Hence, the evaluation of evidence for efficacy in acupuncture ought to be similar to these therapeutic interventions. For the time being, evidence based on large case series should be considered in determining recommendations for clinical practice while evidence derived from more vigorous research designs are being carried out.

In elucidating the mechanisms of acupuncture and exploring its role in a variety of situations, innovative techniques such as fMRI (functional magnetic resonance imaging),¹⁴ PET (positron emission tomography), SPECT (single photon emission computer tomography), and MEG (magnetoencephalography) are beginning to be utilized. Studies on acupuncture in terms of its neuroanatomic and neurophysiological bases, bioelectrical properties, analgesia effects, and its role in regulation in areas such as gastrointestinal, immunological and cardiovascular functions are being carried out. More intense research with increased funding and scientific vigor, in and out of the US, will likely uncover additional areas where acupuncture may prove useful. This will further drive the adoption of acupuncture as a common therapeutic modality, not only in treatment, but also in prevention of disease and promotion of wellness. With technological advancement, innovative methods of acupuncture point stimulation will continue to be explored and perfected. Basic research on acupuncture will also help facilitate improved understanding of neuroscience and other aspects of human physiology and function.

Because of heightened patient demand and better understanding of the role of acupuncture in health care through research and clinical experience, the biomedical establishment, health insurance industries, physicians and other health care providers are beginning to take an interest in acupuncture. In time, those who do not embrace acupuncture will be at a disadvantage. As the efficacy and cost saving potential of acupuncture is more widely recognized, there will be an even stronger push for more insurance companies, medical groups, and even Medicare to provide coverage of acupuncture treatment. We will witness acupuncture being utilized increasingly in outpatient settings, hospitals, rehabilitation units and hospices. An increasing number of physician acupuncturists as well as non-physician acupuncturists are working in different clinical settings. Some licensed acupuncturist specialists will work side by side with MDs in specialized areas.

In the new millennium, the practice of acupuncture will be guided not only by traditional Chinese medicine concepts, but also by data generated through research advances in diverse fields such as neuroscience, molecular biology, chronobiology, computer and information science, energetics, integrative physiology and innovative clinical trial methodology.

Herbs*

Humans and animals have tested and used botanicals to relieve their suffering since ancient times. The appropriate use of Chinese herbs requires proper TCM diagnosis of the *zheng* (pathophysiological pattern) of the patient, correct selection of the corresponding therapeutic strategies and principles that guide the choice of herbs and herbal formulas. When appropriately prepared and used, herbs can be safe and effective. However, when used without proper guidance, a wide array of complications may result.

* Modified from Hui, K.K. "Summary and Conclusions" (1999). *Botanical Medicine: Efficacy, Quality Assurance, and Regulation*. Eskinazi, D. (ed.) New York: Mary Ann Liebert, Inc.¹⁵

Modern scientific investigations on plant-based medicine have been carried out in many parts of the world, including clinical trials of botanical combination products. Clinical research methodologists should take the theoretical construct and clinical approach of TCM into consideration when designing trials. Research designs such as randomized controlled trials have advantages and disadvantages in determining the efficacy of any therapeutic intervention, and can be carried out for botanicals, as seen by a study on herbal formulas for irritable bowel syndrome.¹⁶ Yet, we should seek approaches other than conducting a clinical trial for each product to evaluate safety and efficacy. Alternatives to RCTs include quasi-experiments, cohort studies, case-control studies, and “N = 1” trials. These methods have their advantages and limitations but may be more suited to the evaluation of herbal efficacy. The accurate measures of patient-centered outcomes both generic and disease-specific are important regardless of the design of the study. Above all, the appropriate study design depends on the research question and hypothesis being tested.

Evaluating evidence is both difficult and subjective. The synthesis of evidence is completely dependent on the completeness of the literature search, which is often not available for foreign studies, as well as the accuracy of evaluation. Also, there are situations when neither RCTs nor database analyses separately can answer the question of interest due to different populations being used in the various kinds of studies. Consensus in the real world of health care often requires using information that is less stringent than so-called hard data. Realizing this, we should recognize the research and practice of herbal therapies in China, Korea and Japan when making recommendations for clinical practice. The pharmacological basis for many herbs have been determined in these studies and, as long as safety is assured, their findings should be considered when making recommendations. It is essential that researchers and practitioners be educated in both traditional and western medicines in order to perform research appropriately and treat patients effectively.

Integrative East-West Medicine

Harmonizing traditional medicine and modern medicine is more than utilizing modern research design or scientific technology to assess traditional medicine; it should include assessment of the intrinsic value of traditional medicine in society. Political, economic and social factors play as equally an important role as research and education in the eventual blending of the two healing traditions.

On the clinical level, blending involves the integration of the concepts and techniques of the two systems -- modern medicine's analytical, quantitative, mechanistic approach with the systemic, holistic, individualistic approach of TCM. This framework is applied through the process of diagnosis, prevention, treatment, and rehabilitation and guides the use of the appropriate techniques, allowing the strengths of TCM to compensate for the weaknesses of modern western medicine. As our graying society falls victim to an increasing number of chronic illnesses, we need a health paradigm that solves problems and provides affordable, effective health care for all. We believe that integrative East-West medicine is a candidate for such a model of medicine.

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