

Poney Chiang, a Pacific College New York MSTOM student won a prestigious National Acupuncture Scholarship from American Specialty Health Incorporation. This \$7500 Scholarship is issued to only two students per year attending holistic medicine colleges. The scholarship was based on academic achievement, contribution to the profession, and a comprehensive research essay. Chiang's award winning essay was on the effect of evidence-based medicine on the practice of acupuncture and Oriental medicine in the United States. This winning submission is included below in its entirety.

Evidence-Based Oriental Medicine and the Future of Integrative Medicine

By: Poney Chiang, B.S.(Hon), Ph.D., MSTOM candidate '09

One of my most memorable clinical experiences concerned V. W., a 32 year old woman who presented at our school clinic with severe eczema-like rashes that completely covered both of her lower legs. V.W. had been diagnosed with rheumatoid arthritis at 2 years of age and needed her right knee replaced at the age of 25 due to her arthritis. Her rashes started one month after her knee surgery. Her dermatologist managed the rash with steroids, which helped slightly. V.W. was uncomfortable with the idea of steroid dependency and decided to terminate her treatment herself.

In the Present: V.W. came to our clinic to relieve her arthritic pain with acupuncture. We decided to supplement her treatment with a traditional Chinese herbal formula to manage the wind-heat in her blood that was suspected in causing her rashes. After one week of taking the herbs, 75 percent of her rashes cleared. After one month, V.W.'s rash had been completely eliminated. She now enjoys her favorite activity, swimming, which she was prohibited from enjoying due to her skin wounds for the previous seven years.

In the Future: Her rheumatologist, trained in Evidence-Based Research (EBR), will refer an acupuncturist and identify a specific acupuncture protocol as an adjunct or alternative to her joint pain medication. Her dermatologist, who did a fellowship in Oriental Medical dermatology, can choose from a clinical trial-tested list of regulated herbal formulas produced by Good Manufacturing Practice approved herbal pharmaceutical companies to alleviate V.W.'s condition. Should her condition not improve, then V.W. would be referred to a more skillfully trained OM herbal specialist who can customize her formula on a case by case basis.

Evidence-Based Medicine

Aims: The usage of the term evidence-based medicine (EBM) seems very much in vogue in the current biomedical literature, yet this supposed “new paradigm” was coined by the McMaster University Medical School in Canada back in 1992¹. What exactly is EBM? EBM is a research movement in the medical sciences based upon the application of the scientific method to evaluate the best available research findings in order to optimize the decision making process pertaining to the care of patients^{1,2}. Moreover, randomized controlled trials (RCTs) remain the gold-standard of such research findings. As EBM has soared to prominence within conventional medicine in the past decade, it has met its share of opponents and challenges^{3,4}. While conventional medicine adapts to this changing paradigm, complementary and alternative medicine (CAM) is beginning to experience the updraft of this momentum. These perceived present and future challenges will be examined in the remainder of this paper, with emphasis on traditional Oriental medicine (OM).

The Effect Of EBM On The Acupuncture And OM Profession

In the last five years, Congress has appropriated more than \$580 million towards CAM-based research (5). As more OM-based RCTs are yielding significant findings, a positive feedback can be anticipated in the future funding of OM research. The amount of resources allocated towards and the body of evidence generated by OM research is making it very difficult for conventional medicine to not take notice. CAM-based EBR is changing conventional medicine practitioners’ perception of the efficacy of acupuncture and OM. The rise in the number of Integrative Medicine (IM) departments across major centers in the United States within the past three years is a reflection of this growing trend. The National Council for CAM now issues huge institutional grants to these IM centers, which is expected to foster future talent in IM and pave the way for a symbiotic relationship between CM and CAM. Currently, the OM research conducted by these IM centers is improving the prestige and by extension, public trust of the acupuncture and OM professions in America⁶. But what are the potential benefits and barriers to OM practitioners for the long-term?

Potential Barriers In Rejecting EBM

A common criticism of OM is that its archaic origin makes it unsuitable for treating the diseases of post-industrialized societies. As compared to conventional medicine, OM practice has changed little in the last 200 years. If EBR is not carried out in OM, the profession will not be able to adapt to changes in modern health care. A further risk in rejecting EBM is the potential of alienating the profession from the health care system should other CAM traditions chose to embrace EBM. Furthermore, myopic insistence on practicing “pure” OM may result in decreased research, translating to less accrument of new knowledge and ultimately reduced therapeutic advances and therefore sub-optimal standard of patient care.

Failure to embrace EBM will hinder meaningful dialogue with conventional medicine researchers and clinicians. Without the opportunity for cross-pollination, it will take OM longer to demonstrate its strength in patient-centered care, preventative medicine, and patient empowerment. Combined with the distrust of OM due to the lack of substantiating evidence, the OM profession will be hurt by the delayed recognition of its efficacies and ability to help the public. Therefore, EBR will play an increasingly important role in the acceptance of OM-based therapeutic intervention. Unfortunately, high quality EBM research is scant in the CAM literature ². Hence, the future of applying EBR to OM is limited by the quality and reliability of OM-modality based studies. The solution involves EBR training in OM school curricula and encouraging thesis-based research components in OM education. Similarly, during clinical training, role models need to be current with evidence-based OM literature in order to discuss cases with interns.

Lack of EBR training during the fundamental stages of professional training will produce graduates that are unable to criticize EBR literature and unlikely to be current in their literature review as practitioners. Training in EBM-based decision making provides future OM professionals with a common language and platform to engage in integrative patient care with conventional medicine practitioners. Although EBM is not perfect and has its limitations in clinical practice ^{1,2,7} it has stimulated tremendous public and academic awareness, leading to the formation of research organizations and funding agencies that are striving to improve the understanding of acupuncture and OM. Better research leads to better teaching and training of better OM practitioners. Future patients will be able to benefit greatly from the fruits of our labor.

Potential Benefits In Rejecting EBM

An EBM designation implies that healing modalities from other traditions are not evidence-based.

Although RCTs are considered as a reliable approach for testing the efficacy of medical interventions, it is certainly not the only way. The efficacy of OM arose from recognizing the connection between specific clinical patterns and a corresponding herbal or acu-point prescription⁸. These “trials” were tested repeatedly by generation upon generation of top court physicians for hundreds, even thousands, of years. Given that one of the most common criticisms of EBM is the lack of long-term outcome studies in a RCT, OM practitioners can be resolute in the knowledge that their tradition is both evidence and long-term based.

The reason that standards for evaluating conventional medicine such as RCTs are not suited for OM is clear in the therapeutic objectives of OM. OM treats similar clinical presentations differently in order to account for individual uniqueness in physiological constitution. The inclusion and exclusion criteria in a RCT is not just meaningless to OM practitioners—for example conventional medicine and OM practitioners have different perception of liver cancer—it also fails to provide useful information for clinical decision making. In a RCT, the inclusion criterion is that patients all have a particular illness that requires an intervention of interest to the researcher. Thus, the inclusion criteria is based on a narrowly-defined disease (disease-centered) with no room for interpretation which is very important to an OM practitioner trained to recognize multiple sub-types of any given clinical presentation. Similarly, the exclusion criterion in a RCT is implemented to control for variables within the treatment group that might confound the effect of a given intervention. Here, individual uniqueness actually becomes the criterion for exclusion. Therefore, the EBM approach to clinical decision making is inconsistent with the patient-centered principle of OM practice. RCTs fail to recognize the diversity of patient-disease patterns, making them impractical for clinical usage by an OM trained physician.

EBM, with its reductionist approach toward healing, is incongruent with the highly holistic tradition of OM. OM practitioners who embrace EBM risk becoming disease-centered and less patient-centered. However, resistance to research will also harm the future of OM. The answer is in developing research

parameters that will yield useful information for OM clinicians. Current RCTs on acupuncture are designed to determine whether acupuncture is effective as a biomedical treatment for biomedical conditions⁹. OM researchers should compare the efficacy of acu-point selections for each OM pattern-classification from a given OM diagnosis⁹. Similarly, testing patented OM formulae is not representative of real OM clinical practice¹⁰. Mixed herbal decoctions from quality controlled sources can be used to test the efficacy of remedies from OM pharmacopoeia to simulate actual OM practice. Moreover, studies can be designed to individualize treatments based on OM pattern-classifications by independent screening and randomization of each corresponding herbal formula and placebo¹⁰. The goal would be to provide practitioners with useful information for clinical decision making that is best for an individual patient, rather than the best treatment for the average patient.

Balancing Modern Science With Ancient Philosophy

In modern times, the biggest problem in navigating the information super-highway is how to avoid getting stuck in too much information. With so much scientific information, the challenge lies in synthesizing data into usable knowledge that will be beneficial to clinical decision making. There will be an abundant amount of clinical research that is statistically significant, but in reality, what percentage will be of actual clinical relevance to the future physician? Furthermore, how practical will it be to spend time accessing an EBR database during a serious medical crisis²?

Physicians are here to serve others, not to quote the latest EBM journal articles. Sound clinical decision making involves more than EBM; it involves clinical experience, an understanding of pathophysiology, and understanding the patient as well as demonstrating professional ethics and values.

Medical techniques, either conventional or CAM should be patient-centered, first and foremost. Debating any tradition as having the best evidence does not contribute to patient recovery. The skilled future IM physician should focus on recognizing when a particular medical tradition is most appropriate and will be most helpful to patients¹¹. Physicians with a balanced understanding of high-tech conventional medicine and high-touch CAM will be in the best position to lead the integration of these traditions⁴.

Fortunately, an emerging clinical science known as Functional Medicine is paving the path for the future of IM. The concept of Functional Medicine as established by conventional medicine practitioners is based on the following philosophies that closely parallel OM: biochemical individuality, patient-centered treatment, dynamic balance, web-like interconnections, health as a positive vitality, and promotion of organ reserve ¹².

Evidently, the barriers to integrating OM and conventional medicine are beginning to diminish. As both OM and CM practitioners realize that their patients are seeking combined services because they are getting healthier than through treatment with either medicine in isolation, practitioners will understand that the opportunity for cooperation between their different traditions is limited only by their dedication to do whatever it take to benefit their patients.

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