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Traditional Chinese Medicine (TCM) in the United States: Incorporating TCM in Modern Health Care to Enhance the Care of Patients

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INTRODUCTION

Patients, policy makers, the medical community and health insurance companies are taking an active part in the current evolution of America's health care system. Yet despite attempts to change its system and reduce cost, U.S. health care is still being charged as both the most expensive and the most inadequate system in the developed world[1,2]. America spent about $4,000 per person on health care in 1997, whereas the next most expensive country, Switzerland, spent only about $2,500 per person. Despite one trillion dollars worth of health care expenditures (about 14 percent of GDP), the number of uninsured grew to 44 million (16 percent of the population) in 1998, and both patients and health care professionals alike are frustrated with the current state of affairs. Modern western medicine (MWM) is touted as being the best system in the world in dealing with acute and infectious diseases, but trends such as the graying of society, increased prevalence of chronic illnesses, movement towards more personal control of health, and the renaissance of complementary medicine indicate that the U.S. is in need of a new health care paradigm.

Modern western medicine (MWM) emphasizes a reductionistic focus on the physical and objective bases of disease. In contrast, traditional Chinese medicine (TCM) - a major component of complementary medicine - carries an emphasis on wellness and self-healing of the whole individual. Therefore, the strengths of TCM can be seen to compensate for the weaknesses of modern medicine. Lured by the integrative East-West approach to health and disease, more

patients, researchers and members of the health care community are exploring the potential benefits and pitfalls of incorporating TCM into the health care system.

LIMITATIONS OF THE BIOMEDICAL MODEL

Health policy based on the biomedical model early this century was designed to prevent and alleviate pain caused by acute infections and two chronic infections - syphilis and tuberculosis. For the past century, medical practice and research has employed a "scientific" approach to disease, resulting in an emphasis on objectivity and reductionism. This has led to stunning successes in combating acute injuries and infections, as well as in the prolongation of life. Due to these successes of modern medicine, our aging society has increasingly become victim to diseases of lifestyle. The paradigm that made biomedicine so effective the past few decades is now proving ineffective in meeting the challenges of chronic disease. Chronic illnesses such as heart disease, cancer and stroke have now replaced acute diseases as the leading causes of death, creating the need for primary preventive care and management of chronic degenerative diseases.

Due to biomedicine's focus on objective markers of disease, an increasing number of renowned physicians and scholars are concerned about its inadequate emphasis on issues that play an important part in chronic illnesses[3,4]. Factors such as the interaction between the mind and body, patient and the environment, and physiology and culture play vital roles in chronic illnesses as well as in health maintenance. On the whole, western medicine has been successful in treating the right hand side of the following health spectrum,

Feeling great	→ Wellness/Absence of disease	→ Minor health complaints	→ Multiple/chronic health complaints	→ Acute/Advanced disease	→ Acute crisis/ terminal stage	→ Death

but it has not adequately addressed the far left side of the spectrum - the maintenance of good health.. Health is multi-dimensional and therefore involves not only physical, but emotional and spiritual dimensions of a person as well. Accordingly, health needs to be cultivated and addressed in all of above domains. Western medicine's narrower focus on material evidence may explain its difficulty in solving clinical conditions such as chronic pain and fatigue, as well as in resolving the dichotomy between the objective markers of disease and the quality of life/functional status of patients. Modern medicine is at a crossroads, and as the American health care system continues to develop, it may benefit by incorporating the concepts and teachings of TCM to overcome the challenge of this changed terrain.

TRADITIONAL CHINESE MEDICINE (TCM) IN THE U.S.

Overview

In contrast to the analytical, reductionistic approach of MWM, TCM can be characterized as holistic, with a strong emphasis on the integrity of the human body as well as the intimate relationship between humans and their social and natural environment. There is recognition of the impact that physical, nutritional, psychosocial and genetic factors have on health and disease. TCM focuses on health maintenance and the early stages of disease with emphasis on enhancing the body's natural resistance to disease. Other unique features of TCM's theoretical framework and approach to health and disease include a systems perspective that focuses on process and function over structure as well as a recognition of the inherent complexity in living systems. It also stresses the importance of homeostasis, as well as a normal flow of adequate energy to maintain it.

Despite the ancient origins of TCM, it is still widely used today by at least a quarter of humankind, and has been modified for use in other Asian countries such as Korea and Japan. In the United States, there are approximately 10,000 certified acupuncturists trained in TCM theory and practice. Other health care professionals may also utilize specific TCM modalities within their respective areas, but not necessarily under the guidance of TCM theory[5].

Acupuncture

According to classical TCM concepts, proper flow of Qi and Blood is necessary for maintenance of the healthy state. Flow follows the body's extensive meridian/channel system, which links the exterior to the interior and the various internal organs. Acupuncture improves or restores normal flow by stimulating certain acupuncture points in the meridian system. In modern terms, acupuncture can be looked at as a method of sending a signal to the body (by needle or other means) to 'turn on' its own self-healing or self-regulatory mechanisms. More recent work supports the concept that acupuncture achieves its effects by activating endorphins and other neurotransmitters. Stimulation can be in the form of dry needling (classical acupuncture), injection, electricity, moxibustion, laser, heat or medicated patch. The desired effect can also be accomplished via simple manual massage of acupoints.

In the US, acupuncture has entered the mainstream and is embraced both by the public and the medical community for conditions such as acute and chronic pain as well as chemical dependency. Acupuncture is covered by some insurance companies, and is estimated to be used more than 10 million times per year by over 1 million patients. Increased acceptance by both the public and the scientific community has in a large part been due to the 1997 National Institutes of Health (NIH) Consensus Meeting on Acupuncture. In this meeting, a panel of scientists and

clinical investigators reviewed high quality research data on acupuncture. The outcome of the conference gave direction for future research as well as a list of several conditions for which acupuncture is found to be effective. It was determined that the efficacy of acupuncture is adequately established for post-operative and chemotherapy nausea and vomiting and post-operative dental pain. Acupuncture was also recommended as an adjunct treatment or an acceptable alternative for addiction, stroke rehabilitation, asthma, menstrual cramps, tennis elbow, carpal tunnel syndrome, low back pain, headache and pain syndromes such as fibromyalgia and myofascial pain[6].

Acupuncture practice and regulation

The biomedical establishment, health insurance industries, physicians and other health care providers are beginning to take an interest in acupuncture due to heightened patient demand and better understanding of the role of acupuncture in health care. As an increasing number of insurance companies and medical groups adopt acupuncture as a therapeutic modality, it will be utilized increasingly in various clinical settings. Correspondingly, there is an increasing number of physician and non-physician acupuncturists to meet the rising demand.

With acupuncture joining the mainstream, more vigorous standardization and regulation of its practice will be needed. Currently, the practice of acupuncture in the US is regulated on two basic levels: 1) acupuncture needles and 2) training and licensing requirements. In 1996 the FDA (Food and Drug Administration) formally recognized acupuncture needles as a legitimate medical device and approved it for "general acupuncture use" by licensed, registered, or certified practitioners. This classification improved the image of acupuncture as a medically approved treatment, increased its accessibility, allowed medical insurance coverage and expanded research

funding for acupuncture. In order to treat patients with acupuncture in the U.S., one must have medical privilege (M.D., D.O., L.Ac., CA). Training and licensing regulations for practitioners apply nationwide, but many exist only at the state level contributing to wide discrepancies. Although efforts are underway to standardize the practice of acupuncture, state regulations vary from stringent to nonexistent and many states support a double standard: medical doctors, dentists and osteopaths can practice the procedure without formal training, but acupuncturists must complete a specified number of training hours and pass a licensing examination[7].

Acupuncture research

A biomedical explanation for acupuncture is evolving as many dedicated investigators have and continue to uncover neurochemical and neurophysiological involvement in acupuncture's apparent efficacy. In elucidating the mechanisms of acupuncture, research has expanded and innovative techniques are beginning to be utilized[8]. Studies on acupuncture in terms of its neuroanatomic and neurophysiological bases, analgesia effects, and its role in regulating physiological functions are being carried out[9,10]. In the past, acupuncture research in the US has not been performed within the framework of TCM. Future clinical trials that test acupuncture within TCM's framework 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 of clinical trials for treatment recommendations may be too strict and limit potentially useful indications.

Herbs

In TCM, Chinese herbal medicine is the dominant therapeutic modality. Its analog in conventional western medicine is the entire area of chemical-based therapeutics (nutrition and pharmacology). It is a system whose application covers the entire spectrum of clinical conditions, from the most severe to minor. The use of herbs and herbal formulas in the treatment of disease is by no means a haphazard exercise in prescribing medication. The appropriate use of Chinese herbs requires proper TCM diagnosis of the *zheng* (pathophysiological pattern) of the patient and 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.

Herbal practice and regulation

In the U.S., single herb preparations are often used by consumers without the guidance of TCM theory. Herbal products are often purchased in mainstream stores such as pharmacies, grocery stores, health food stores, etc. Herbs can also be purchased by health care practitioners directly from suppliers or can be ordered by consumers individually via the Internet. Herbal consumers are either self-educated about the products they buy, follow someone else's advice, or an anecdotal account, and often purchase based on information presented by the media, marketing and product packaging. Even though herbs are widely used by the public, the beneficial effect of herbs is not fully accepted by the medical and scientific community. It is also not currently covered by most health insurance plans

Since 1994, the FDA regulated herbs and related products, beginning with the Dietary Supplement Health and Education Act or DSHEA[11]. Attempting to regulate herbs but not limit their availability to the public, DSHEA classified herbs as dietary supplements thus excluding them from the rigorous process required of all standard drugs. Also as a result of DSHEA regulations, effective March 1999 all dietary supplements must identify the ingredients in the product, the quantity of each ingredient, and the standard recommendation for daily consumption of each ingredient if known. On January 6, 2000 the FDA finalized rules for claims on dietary supplement regarding their effects on the structure or function of the body. Pursuant to DSHEA, without prior FDA review, dietary supplements may bear claims that products affect the structure or function of the body. They may not, without prior FDA review, bear a claim that they can prevent, treat, cure, mitigate or diagnose disease (a disease claim). This new ruling allows supplement companies to make additional claims regarding common, minor symptoms and conditions that the FDA describes as "associated with life stages," such as adolescence, pregnancy, menopause and aging.

Following the passage of DSHEA, the herbal market in the United States has flourished; however, assurances of safety, efficacy and quality control of herbal products continue to be suboptimal. Reports of side effects, drug-herb interactions or contamination of herbal products have appeared and posed questions about the future of the botanical market[12]. Some of the problems surrounding herbal products include: use without adequate knowledge on the part of either the prescriber or the user, use without appropriate medical monitoring, contamination of herbs and related products[13], and manufacturing differences and mislabeling.

Besides regulations on herbal products, herbal practitioners who wish to demonstrate proficiency have a set of guidelines that they can follow. Outside of California, one must have

graduated from a formal full-time Oriental Medicine program, completed an apprenticeship, and practiced Chinese herbology for at least four years in order to be eligible to take an examination by NCCAOM (National Certification Commission for Acupuncture and Oriental Medicine). In California, the prescription of Chinese medicine is included in the clinical practice of most acupuncturists and is included as part of their training and licensure examination. A small portion of herbal use in the United States is under the guidance of these TCM practitioners; most are purchased over the counter and used as a dietary supplement.

Herbal research

In response to the thriving US herbal market and lack of scientific information on botanical products, in October 1999 the National Institutes of Health awarded $15 million in grants towards the study of dietary supplements[14]. With the purpose of increasing scientific information and helping health practitioners and consumers more effectively evaluate and use these products, the grants were awarded to two institutions (University of California, Los Angeles and University of Illinois at Chicago) to advance the scientific knowledge on the safety, effectiveness and biological activity of botanical dietary supplements.

Current studies in the West have mainly addressed single botanical preparations using the biomedical model. Under the guidance of TCM theory in the Far East, the use of Chinese herbal medicine, usually in the form of herbal mixtures (formulae), has been purported to have beneficial clinical effects without much toxicity. Therefore, it will be important for clinical research methodologists to take the theoretical construct and clinical approach of TCM into consideration when designing trials[15]. 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]. However, approaches other than conducting a clinical trial for each product to evaluate safety and efficacy should be considered[17].

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 of some herbs have been determined in scientific studies and, as long as safety is assured, these 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.

Massage

Massage is commonly used among Americans and is usually covered for rehabilitation by some insurance companies, but the full medical potential of therapeutic massage is yet to be discovered by western physicians. Well-designed research investigating oriental massage therapy is needed in order to convince health care professionals about the value of this type of massage, promote its integration into standard medical therapies, and encourage learning among physicians. Recent studies on massage therapy have shown benefits for a spectrum of conditions such as chronic pain syndromes, chronic fatigue syndrome, asthma in children, fibromyalgia, PMS, depression, anxiety, post-mastectomy lymphedema treatment, and inflammatory bowel disease[18,19]. Hopefully, more well designed research will be performed, leading to a better overall acceptance of medical massage and further upgrading of its profession.

As of 1998, 25 states and the District of Columbia require massage therapists to be licensed, registered, or certified, and 11 others are considering similar legislation. Although licensing laws vary from state to state, most require classroom instruction and passing a proficiency exam (state or national). Some medical insurance plans are interested in including massage therapy in their CAM benefits packages but want proof of competency from massage therapists. This drives much of the movement towards professionalism in massage therapy.

Tai Chi and Qi Gong

Tai Chi and Qi Gong are practiced by some Americans, but not as extensively as other forms of complementary medicine such as yoga, acupuncture or herbs. Tai Chi and Qi Gong can be broadly viewed as exercises which help maintain balanced, free flowing Qi (normal neurotransmission), a condition essential for the maintenance of good health. The slow movement of Tai Chi helps relax and tone muscles, improve balance and regulate the flow of Qi. The technique promotes wellness, and alleviates stress and many chronic illnesses, as well as many aging related conditions[20,21]. The effect of Qi Gong practice on asthma, diabetes, and on cancer cells has been researched, as well as in areas such as hypertension, brain activity, kidney function, enzyme and immune function and sex hormone levels.

Tai Chi and Qi Gong exercises are offered by a variety of CM practitioners as well as the specialists, so-called Tai Chi Masters. To teach Tai Chi and Qi Gong, many Tai Chi and Qi Gong exercise studios have been opened in areas where people seek CM. Tai Qi and Qi Gong are not standardized, and more research is needed regarding their beneficial effects[22].

EDUCATION

The importance of education and public awareness in CAM/TCM is not to be underestimated. As more patients look for healing therapies outside of conventional medicine and seek to incorporate them into their individual paths to wellness, physicians are finding that they must deal with healing traditions outside of their own in caring for their patients. On the one hand, western physicians may provide better care for their patients by learning Chinese medicine; they can then learn to monitor for, prevent and manage toxicity, and be able to make appropriate recommendations outside of his/her area of expertise. On the other hand, Chinese medicine practitioners should learn modern medicine in order to function more effectively in the mainstream.

In the last few years, there has been a tremendous increase in the amount of educational activities in complementary and alternative medicine (CAM). For physicians, there has been an increasing number of Continuing Medical Education programs sponsored by accredited educational and medical institutions, an increasing number of workshops, certificate or fellowship programs in CAM, as well as acupuncture courses for physicians. More medical schools are also offering courses in CAM[23], and some conferences, books, journals, newsletters and Internet websites are concentrating on complementary therapies. It is important that in order to enhance medical care without increased toxicity, both the public and health care professionals learn about the appropriate integration of TCM and modern western medicine. The public must be aware of how to appropriately use Chinese therapeutics and what to expect and not expect from the use of TCM. Proper knowledge will result in synergistic effects, while ignorance will lead to the inappropriate, haphazard mixing of these two great healing traditions. A major case in point involves potential adverse interactions between herbs and drugs. The American consumer ought

to know more about the appropriate use of herbs, and manufacturing companies should provide more information on the herbal products that they produce. Physicians who are well versed in both CAM and conventional western medicine may be able to make better choices regarding diagnosis and treatment. To be able to do so, it is essential that the teaching of CAM occur in the context of a systematic and philosophical framework such as TCM.

COST EFFECTIVENESS

There is currently a lack of studies regarding the cost effectiveness of Integrative East West Medicine. However, one relevant study conducted in a Japanese hospital showed that herbal medicine significantly decreased cost in the hospital[24]. This study showed that the drug cost of Western drugs averaged about six U.S.D. more per patient per day versus administration of Western drugs plus Japanese Kampo drugs. While it is unclear whether quality is maintained, the cost reduction for the 200-bed hospital equaled $438,000 in one year. This study illustrates the dramatic potential of Integrative East-West Medicine, and indicates that similar studies need to be performed.

INTEGRATIVE/COMPLEMENTARY MEDICINE CENTERS IN THE U.S.

In response to the resurgence of complementary and alternative medicine, the National Center for Complementary and Alternative Medicine (NCCAM) has been established within the National Institutes of Health, with a budget of $50 million in 1999. In order to facilitate the evaluation of alternative treatment modalities to determine their effectiveness, it has six functional areas, one of which is to provide grants to 1) sponsor research and 2) fund nine specialty research centers. These research centers evaluate alternative treatments for many chronic health conditions

including: addictions, aging, arthritis, cardiovascular disease, chiropractic, craniofacial disorders, neurological disorders and pediatrics and provide mechanisms for investigators to review, develop and execute research in promising alternative medical practices in a scientifically rigorous manner. The centers allow alternative medicine practitioners and research scientists to conduct specific joint research projects, the results of which will be published in the scientific literature and disseminated to the public.

Other private, public and academic clinics and research institutes have also been established to integrate complementary and alternative medicine with modern medicine. With the purpose of researching theories, implementing the practice of integrative medicine and opening communication between alternative and western medicine practitioners, institutes and clinics are exploring the benefits of all forms of complementary therapies. Therapies include: homeopathy, yoga, biofeedback, meditation, stress management, nutritional medicine, psychotherapy, massage, chiropractic, acupuncture, herbal medicine, etc. Integrative medicine clinics provide both Western and complementary services in a single setting or series of settings. Others provide a range of complementary services independent of physician practice. At American Whole Health, a network of private for-profit centers, each center employs a board-certified physician who practices medicine and supervises a broad range of independent alternative therapists and practitioners. Other examples of clinics/programs include King County Natural Medicine Clinic in Kent, Washington, the Complementary Medicine Clinic at the Stanford University School of Medicine, the Program in Integrative Medicine at the University of Arizona and the UCLA Center for East-West Medicine.

THE UCLA CENTER FOR EAST-WEST MEDICINE

The UCLA Center for East-West Medicine is the first center that integrates TCM and MWM at a major academic institution in the United States. It strives to extend several decades of effort by researchers and clinicians dedicated to the integration of TCM with western medicine in China and other countries such as Japan and Korea. Investigations using modern scientific techniques and clinical trials by scientists and clinicians versed in both eastern and western traditions increasingly validated some of TCM's principles and techniques and have offered ample evidence for its safety and efficacy.

Establishment of the Center for East-West Medicine at the UCLA School of Medicine represents our efforts to develop, promote and offer access to the public this emerging, integrative East-West medical paradigm. The Center has the following major goals:

- Establish the theoretical and scientific construct of a new model of medicine based on findings from the latest scientific research and an integration of western and traditional Chinese medical paradigms,
- Develop a model system of comprehensive care with emphasis on health promotion, disease prevention and treatment and rehabilitation through an integrated practice of East-West medicine,
- Offer professional and public education programs on TCM and integrative East-West medicine, and
- Stimulate interest and collaboration on multidisciplinary issues relating to integrative East-West medicine at UCLA and academic institutions around the world.

Accordingly, there are four components to the UCLA Center for East-West Medicine - the clinic, research programs, educational programs and information exchange.

Clinic

Despite financial, ethical, social and legal constraints the Center clinic has had much success in treating its patients with this emerging paradigm. It distinguishes itself from other programs at UCLA by its integration of TCM principles and techniques with those of modern medicine at all stages of patient management, from health promotion to treatment of difficult clinical problems. Clinicians well versed in both conventional medicine and TCM work in unison throughout the diagnostic and therapeutic process. An individualized patient management plan, incorporating the best of conventional and TCM approaches are designed. Special care is also taken in the prevention of adverse interactions among drugs, herbs, acupuncture and disease that may occur when a patient receives herbal or acupuncture treatment without the knowledge of his or her physician.

Research

Research projects at the Center focus on incorporating TCM concepts and techniques in patient management in order to provide cost-effective care, and to define guidelines for ensuring safety and quality. Ongoing research projects at the Center include studies on hypertension, fibromyalgia syndrome and the relationship of blood pressure to cognitive function and brain MRI. Other studies involve appropriate regulation of herbal/dietary supplements and acupuncture's role in modulating mental stress.

Education/Public Awareness

Our own Center has spearheaded educational efforts in integrative East-West medicine, which include conferences, lectures, medical student classes, resident rotation and a new fellowship program. The UCLA Center for East-West Medicine is also currently developing an integrative East-West medicine certificate program for mid-career physicians. These programs, through a combination of lecture, case discussion and bedside teaching, introduce TCM as a complete system of medicine, examine its scientific basis and modern research and discuss its successful integration with modern medicine.

Yet, in teaching Integrative East-West Medicine the Center has had to face many challenges. These include language problems with TCM teaching materials as well as the necessity that teaching faculty be able to go back and forth between modern western medicine and TCM. Also, in order to make Integrative East-West Medicine more tangible for students, it is important to expose them to experiential learning as much as possible. We generally enhance students' experience by emphasizing problem-based learning and exposure to the one thing that TCM and modern medicine do have in common—the patient. We show the students that although the approach and thought process utilized by each medicine may be dissimilar, the patient being treated is one and the same. Throughout our sessions, we make ample use of clinical cases, patient interviews, and numerous interactive and bedside discussion sessions among faculty, students and patients. The clinical cases presented are typically patients who have responded poorly to conventional treatment (failed or with intolerable adverse effects), and whose clinical problems are easily managed by TCM.

Finally, believing that all segments of the population will benefit from knowledge of integrative East-West Medicine, the UCLA Center for East West Medicine also disseminates information through the media. We work with major news agencies such as the Associated Press and the Los Angeles Times, as well as television media through programs such as Chicago Hope and channels such as the Discovery Channel, PBS, NBC and ABC.

Information Exchange

The fourth component of the Center provides a forum for information exchange and policy development on pertinent health and medical issues related to the field of Chinese medicine and integrative East-West medicine. In collaboration with leading health professionals and federal agencies such as the Food and Drug Administration and the National Institutes of Health, as well as the World Health Organization, the Center provides information on progress in the clinical, educational, and research areas of traditional Chinese medicine and integrative East-West medicine. The Center has established a national and international network comprised of experts, health care providers, research institutes and related organizations dedicated to integrative East-West medicine. It will host an international conference in the fall of 2000.

Cost effectiveness

Through our experience at the East-West Clinic, we have seen hundreds of patients who have experienced the cost-effectiveness of our program. As an example, one of our patients kept detailed financial data and therefore contributed to our appreciation of the potential cost effectiveness of the integrative approach to medical care. This patient was a 72-year old Caucasian female with left hip and lower left extremity pain who was referred to the UCLA

Center for East-West Medicine after failing decompressive lumbar laminectomy of L3-L5 for spinal stenosis in 1996. All of her symptoms were aggravated by physical strain such as walking and standing for even a short period of time. Her Medicare (government insurance for the elderly) approved cost for her treatment over 1 ½ years prior to coming to the Center (including six epidural steroid injections, physical therapy, medication and lumbar laminectomy) equaled about $34,000. After six treatments over three months of treatment at the Center, which included patient education of self massage, exercise, acupressure massage and trigger/acupuncture point injection, the patient saw a dramatic improvement in her condition. To achieve these results at our Center, her Medicare approved payment for the six treatment visits and initial consultation was approximately $600. She has continued to maintain these results for the past three years at the Center with appointments at four to five week intervals.

CONCLUSION

To find solutions for the health care needs of an increasingly graying society requires the concerted efforts, ingenuity, collaborative spirit and open but critical minds of the scientific and medical communities, policy makers, the public, and other segments of society. The health of our society will benefit from contributions from all healing traditions. Chinese medicine's thousands of years of thinking, analysis, and practice has much to offer to complement the current biomedical model. Its focus on cultivating health by maintaining homeostatic reserve and minimizing factors that lead to dysregulation and abnormal flow will complement the crisis intervention model of biomedicine. Since TCM is of a low-tech and low cost nature and has been part of most cultures in the Asia Pacific region, it is both affordable and accessible. If we incorporate TCM modalities which have proven to be safe and effective through vigorous

research, we will have a solution to the recent concerns about the high cost of medical care, the safety of modern drugs, as well as the widespread nature of iatrogenesis as recently reported in the United States. We believe that utilizing the best of both healing traditions results in an emergent health paradigm that can meet the health care needs of society in an effective, safe, accessible and affordable manner.

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