PERSPECTIVE

Integration of Chinese Medicine and Western Medicine in Clinical Practice (Patient Care): Past, Present, and A Proposed Model for the Future

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Historic Background

Chinese medicine (CM) has over 2,000 years of history in China and was the only health care system providing care for Chinese prior to the introduction of Western medicine (WM) into China. WM was slowly introduced into China by missionaries from the middle 17th century to the beginning of the 19th century. By 1840, WM began to take root in China. Western hospitals, clinics, medical schools and nursing schools spread rapidly throughout the country. At that time, with the might and power portrayed by Western countries, everything "Western", including medical practices, was believed to be "modern" and superior. Not surprisingly, CM was rapidly abandoned, especially in the urban centers. By the late 1910's, the new government in power, with the aim of modernizing China, and with the reasoning that WM was scientific and that CM was not, set up rules and regulations to eliminate CM altogether. Paradoxically, this actually turned out to be beneficial for CM. Facing the risk of being eliminated, CM physicians and their proponents were forced to organize in order to protect, to develop, and to give CM a more modern face. CM thought-leaders had the foresight to recognize the need for changes if CM was to survive and to progress. They began to foster the idea of absorbing the strength of WM into CM, while maintaining the essence of the Chinese medicine tradition.[1,2]

After the founding of the People's Republic of China, Chairman MAO Ze-dong, noting that the "subject of CM is a great treasure", called on doctors of WM to learn CM. His thought was that "CM and WM must combine ⋯ should study the laws of CM with the modern scientific technique of the Western countries, and thus develop a new medical science in China." In other words, the theory of CM must be studied using the Western scientific method.

By 1980, it became clear that there were three forms of medical science and treatment available in China: CM, WM and integrated medicine.

With this historic background, one could see that integrated CM and WM may become a way to develop and evaluate CM. Under this banner of integrated medicine, much work has been done over the last 50 years, although much remains to be accomplished.

Concept of Integrated Medicine

Integrated medicine has been conceptualized and defined in different ways. One can go back to Chairman Mao's concept of studying the practices of CM with WM scientific method, and thus development of a new medical science. The most accepted current concept and practice is to treat patients and illnesses combining CM and WM modalities in the belief that the two disciplines will complement each other. We will use this commonly accepted concept and propose a model for the future.

Integrated Medicine: Current Status and A Proposed Model for the Future

We propose that CM and WM cannot be truly integrated until CM has been proven to be effective clinically. If well designed clinical trials cannot demonstrate efficacy, there is little value in expending efforts in trying to integrate the two disciplines. We believe properly designed clinical trials which demonstrate that CM is effective must be the first step in a transition to integrated medicine. In order to develop proper CM clinical trials, WM practitioners should be reminded that CM theory and practice often have no WM counterparts. For example, the term 'Kidney' (Shen), is not the same as the anatomical organ described in

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DOI: 10.1007/s11655-013-1350-9

Chin J Integr Med 2013 Feb;19(2):83-85

WM. In addition, CM establishes a diagnosis of the individual rather than of the disease, using a process called 'syndrome identification', whereby the practitioner makes a dynamic conceptualization of the individual's situation and arrives at a 'pathophysiologic status' (the type of disharmony) for the individual. This status is called 'Zheng' or 'syndrome'. The therapeutics used to restore the harmony within the host, and between the host and their environment are determined by the identified 'syndrome'. The theory of CM diagnosis and management has not been elucidated in Western scientific terms, but the CM 'syndrome identification' process is believed to be valid by its practitioners. There has been little effort to apply scientific method to the CM hypotheses of "Zheng" identification until very recently.

We think it is reasonable to state that in China today, WM is gradually gaining priority over CM, especially where there is demonstrated effectiveness by WM. In general, there is concern that either CM alone or integrated CM/WM may add cost and/or potential toxicity with no additional benefit. From time to time, integrating CM and WM is used in managing certain diseases, particularly in diseases where WM is not particularly effective; for example, immune-mediated diseases such as allergy, certain types of arthritis such as osteoarthritis and different types of malignancies.

Currently, integrated medicine may be practised by WM physicians who have learned various aspects of CM; CM physicians who have learned various aspects of WM; or WM and CM physicians working together. The literature on integrated medicine is mainly generated by the third group. Combinations include adding CM modalities (physical and pharmacological) to Western surgery; combining WM drugs with CM formulae; and combining WM drugs with CM physical modalities, such as acupuncture, exercises, moxibustion, etc. Reviewing the literature, it would appear that some of these integrations have been felt to be effective and some are not.[3-5] Whether integrated medicine is practised by CM or WM physicians, CM modalities usually play a supplementary role.

Over the last 40–50 years, the number of clinical trials involving CM has been increasing year after year and the quality of these clinical trials has been improving. However, in 2008 a review of a total of 70 Cochrane systematic reviews regarding CM clinical research found most of the studies to be inconclusive.[6] The reasons of the finding were multiple. Most importantly, most of these studies employed randomized controlled designs that were not suitable for CM research. CM clinical research should be based on its own diagnostic and treatment principles and this was usually not the case in these studies. Thus, there was a failure to consider the fundamental concepts of CM in terms of diagnosis and treatment in designing the studies. Moreover, the measures of efficacy were derived from Western views of disease (disease endpoint), and did not consider the goals of CM (syndrome endpoint). Whether or not this is important is not known but is something else that deserves evaluation. In other words, we believe that, while it is important to measure WM disease outcomes using standardized WM measurement instruments, it may also be valuable to assess whether the treatment intervention results in restoration of the CM syndrome to balance/harmony.

For example, if a study was to be done on rheumatoid arthritis, patients would be diagnosed by WM criteria with rheumatoid arthritis by a Western-trained rheumatologist, classified into CM syndromes by a trained CM practitioner, and one or more of the syndromes selected for treatment. Factorial design could be used to separate the contribution of each single component factors from the combined outcome effect.[7] This would be particularly valuable in studies addressing CM interventions, which has multiple treatment components. There would be parallel treatment groups, one with WM and one with CM treatment. Outcomes would be measured by standardized WM instruments [e.g., Disease Activity Score for 28 joints (DAS28), American College of Rheumatology 20%/50%/70% Improvement (ACR20/50/70), Health Assessment Questionnaire-Disability Index (HAQ-DI)] and by harmonizing and balancing of the CM syndrome. It is critical that these measures be validated and administered by independent assessors, experienced in administering these measures.

WM has served mankind well. For example, in the field of rheumatology, with the increasing elucidation of immune mechanisms and the development of transplantation biology, we have gained much insight into the pathophysiology and treatment of rheumatic diseases. Nevertheless,

despite of all these advances over recent decades, we still have difficulties understanding the precise etiology and pathogenesis of these diseases, let alone managing and – ideally – curing them. If WM rheumatic diseases can be correlated with different CM syndromes (under the broad category of "Bi Syndrome"), effective CM modalities to manage the specific syndrome may complement the deficiencies of WM modalities in managing the disease, in other words, providing truly "integrated medicine". In addition, the CM hypothesis of syndrome identification could provide a different insight that might expand the Western view of disease pathogenesis.

There are, accordingly, a number of areas in CM and WM which provide opportunities for productive and collaborative research. In designing these future trials, it is important to incorporate the concepts of both WM disease identification and pathogenesis, and CM syndrome identification and management of the syndrome into research protocols. This will require the collaboration between WM and CM practitioners to share in the development of protocol, treatment, and information exchange and strengthening interprofessional connectivity and leadership for integration.[8,9] For example, a study by He, et al[10] classified the WM diagnosis of rheumatoid arthritis into 4 separate CM syndromes (joint symptoms, cold pattern, deficiency pattern, and hot pattern). CM was more effective in the deficiency pattern and WM was more effective in cold pattern patients. One can postulate that syndrome classification of other WM diagnosis may help to select the most appropriate treatment for a particular patient group. Indeed, syndrome identification has been found to be reproducible in a number of WM diagnoses such as atherosclerosis, hypertension, and diabetes.[11]

There have been no guidelines developed as to when and for what medical problems should CM and WM integration be applied. However, these need to await the outcome of research studies demonstrating treatment benefit and studies to evaluate how integration would maximally benefit the patient. The model of interdisciplinary care in WM would then be a useful one on which to build a treatment model. When CM evidence is established, CM and WM physicians will have confidence to refer their cases to each other and work together for the care of the patients. It will be critical that each discipline work within its own expertise (unlike the present situation which is often a WM physician with a little training in CM or a CM physician with a little training in WM). CM would be recognized as a special branch of medicine practised by specialists well trained in the area, for example, as pediatric medicine is practised by pediatricians. Ultimately, there would be no WM or CM, only medicine delivered by a treatment team and appropriate for the care of each individual.

REFERENCES

1. Chen K, Xu H. The integration of traditional Chinese medicine and Western medicine. Eur Rev 2003;11:225-235.
2. Cai J. The integration of traditional Chinese medicine with Western medicine-right or wrong. Soc Sci Med 1998;27:521-529.
3. Chen K. Current research and development of integrated traditional Chinese and Western medicine in gastroenterology. China Nat J New Gastroenterol 1996;1:1-2.
4. Chen J, Hu L. Traditional Chinese medicine for the treatment of chronic prostatitis in China: a systematic review and meta-analysis. J Altern Complement Med 2006;12:763-769.
5. Zhang M, Liu X. Effect of integrated traditional Chinese and Western medicine on SARS: A review on clinical evidence. World J Gastroenterol 2004;10: 3500-3505.
6. Manheimer E. Wieland S. Evidence from the Cochrane collaboration for traditional Chinese medicine therapies. J Altern Complement Med 2009;15:1001-1014.
7. Goldsmith CH, MacDermid J, Santaguida PL, Miller J. What does the evidence tell us about design of future treatment trials for whiplash-associated disorders? Spine 2011;36(25 Suppl):S292-302.
8. Tsang I. Establishing the efficacy of traditional Chinese medicine. Nat Clin Pract Rheumatol 2007;3:60-61.
9. Jian Y, Veronica F. Study designs of randomized controlled trials not based on Chinese medicine theory are improper. Chin Med 2009;4:1-5.
10. He Y, Lu A, Lu C, Zha Y, Yan X, Sang Y, et al. Symptom combinations assessed in traditional Chinese medicine and its predictive role in ACR20 efficacy response in rheumatoid arthritis. Am J Chin Med 2008;36:675-683.
11. Ferreira AS, Lopes AJ. Chinese medicine pattern differentiation and its implications for clinical practice. Chin J Integr Med 2011;17: 818-823.

(Received December 2, 2012)
Edited by ZHANG Wen