

The integration of traditional Chinese medicine and Western medicine

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Traditional Chinese Medicine (TCM) is one of the world's oldest medical systems, having a history of several thousands of years. It is a system of healing based upon the Chinese philosophy of the correspondence between nature and human beings. Its theories refer to *yin* and *yang*, the Five Elements, *zang-fu*, channels-collaterals, *qi*, blood, body fluid, methods of diagnosis, the differentiation of symptom-complexes, etc. TCM has two main features: a holistic point of view and treatment according to a differentiation of syndromes. The therapeutic methods of TCM involve different approaches, such as acupuncture, moxibustion, *tuina* bodywork, herbal medicine and *qi gong*, in order to allow the body to heal itself in a natural way. Western medicine was first introduced into China from the middle of the 17th century. During the first two centuries several different views, related to the future of TCM and the relation between TCM and Western medicine, emerged. Some advocated 'complete westernization' of Chinese medicine, others were in favour of keeping it intact, whereas again others recommended the 'digestion and assimilation of TCM and Western medicine'. Nowadays, more and more people realize that each of the two medical traditions has its own merits and advise that the two systems should benefit from each other's strong points. We offer an argument for integrating Western medicine with TCM. In the 20th century China has maintained and developed three kinds of medical science, that is, TCM, Western medicine, and 'integrated medicine'. Much has been achieved in clinical, experimental and theoretical research. The development of any science can be furthered by cross-fertilization based on absorption and fusion of whatever useful theory and experience. It is our dream that, in the future, diverse modalities – including TCM, Western medicine and possibly other variants – can work in conjunction with each other as part of a unified team rather than in competition. This integrated approach will ultimately lead to safer, faster and more effective health care.

Traditional medicine in China

Traditional Chinese Medicine (TCM) has a history of several thousand years. On oracle bones from the Shang dynasty (1766 to 1122BC), inscriptions about illnesses, medicines and treatment methods have been found. In 1973, records of medical treatises, written on silk banners and bamboo slips, were discovered in the No. 3 tomb at Mawangdui in Changsha, Hunan province. These records were transcribed during the Qin and Han dynasties (221BC to AD220) and represent the oldest surviving Chinese medical literature. A famous classical work on medicine, 'Yellow Emperor Internal Classic' (*Huangdi neijing*) emerged about 2000 years ago, which established the basis of TCM as a subject of science.

The philosophy of TCM

TCM is a system of healing based upon the Chinese philosophy of a correspondence between nature and human beings. The principle of a relation between a macrocosm and microcosm is based upon the long-standing observation that nature has a vital effect upon the health of people. Another fundamental principle is that of *yin* and *yang*, the two basic complementary energies of nature. All manifestations of nature are thought to be composed of a specific balance between these two forces. Health is also thought to result from an appropriate balance of *yin* and *yang* in the body, an imbalance of which may lead to a variety of diseases.

The balance of *yin* and *yang* is reflected in many ways, but the most fundamental is that of the relationships of *qi*, the vital force or energy which flows through a system of channels and conduits in the body, much like the earth's magnetic field. *Qi* is responsible for activating and maintaining all of the physiological functions of the body.

Body constituents

Just as nature contains air, sea and land, the human body comprises *qi*, blood, and body fluid. *Qi* is the animating force that gives us our capacity to move, think, feel and work. Blood is the material foundation out of which we create bones, nerves, skin, muscles, and organs. Body fluid is the liquid medium that protects, nurtures and lubricates tissue. *Qi*, blood, and body fluid are not only the material basis of the functioning of the viscera and bowels, channels and collaterals, tissues and other organs, but are also the physiological products of their functioning. They complement each other and have mutual causality in many aspects, such as physiology and pathology.

Organ networks

Just as nature is organized by five primal forces – wood, fire, earth, metal and water – so, according to TCM philosophy, the body is divided into five functional systems: *liver, heart, spleen, lung, kidney*, known as ‘organ networks’. These networks govern particular tissues, mental faculties, and physical activities by regulating and preserving *qi*, blood and body fluid.

The kidney network manages fluid metabolism and stores the essence responsible for reproduction, growth and regeneration. It controls the teeth, bones, marrow, brain, inner ear, pupil of the eye, and lumbar region, and is associated with the emotion of fear, the will, and the capacity for sharp thinking and perception. Problems such as retarded growth, ringing in the ears, infertility, low back pain, paranoia, fuzzy thinking, weak vision, apathy, and despair are viewed as dysfunctions of the kidney network. The heart not only propels blood through the vessels, but also harbours the spirit and governs the mind. Symptoms as varied as anxiety, restless sleep, angina and palpitations occur when the heart is agitated. The spleen is in charge of the assimilation of food and fluids, as well as ideas; when this network is disturbed, indigestion, bloating, fatigue, scattered thinking, and poor concentration ensue. The liver is responsible for the storage of blood, flow of *qi*, and evenness of temperament. When the liver is thwarted, tension in the neck and shoulders, high blood pressure, headaches, cramping, moodiness, and impulsive behaviour may follow. Through the breath, the lung sets the body rhythm, defends its boundaries, and affords inspiration. A troubled lung might trigger tightness in the chest, skin rashes, vulnerability to colds or flu, rigid thinking, or melancholy.

It is important to point out that the TCM’s names of the internal organs of the human body are basically the same as those used in Western medicine, but the understanding of their functioning differs. For example, the functions of one organ in TCM may contain the functions of many organs in Western medicine. Similarly, the function of one organ in Western medicine may be contained in the functions of several viscera and bowels in TCM. This is because TCM’s viscera and bowels are not only anatomic units, but also concepts of physiology and pathology, and the latter is even more important. For example, the heart in TCM stands for the same anatomic entity as in Western medicine, but it also refers to some functions of the nervous system, especially those of the brain.

Diagnosis and treatment

In traditional Chinese medical practice, the practitioner first questions his patients about their symptoms, examines their tongue, palpates their pulse and body, and carefully observes any distinguishing characteristics of their colouring, smell,

voice, posture, movement, or skin. The information acquired from this process is then arranged in a sequential causal pattern to arrive at the diagnosis of a person's condition. Then a specific formula is selected from the most common traditional formulas. This formula may then be modified through the addition or subtraction of substances or dosages. This is done to arrive at a very specific treatment formula for the patient's specific symptom pattern. This treatment can be administered in the form of a decoction, infusion, tincture, powder, pill, plaster, poultice, bolus, draft or capsule. Many of the traditional formulas are available in tincture, pill, powder or capsule form from commercial herb companies. Raw herbs, or unprepared herbs, can be purchased from a hospital or at a Chinese herbal pharmacy.

The treatment involves various approaches to altering the circulation of *qi* in order to allow the body to heal itself in a natural way. Acupuncture uses needles to puncture specific locations (acupoints) along the channels that conduct the *qi* through the body. Moxibustion uses the application of heat in the form of a burning herb called moxa on the acupoints or on specific regions of the body. *Tuina* bodywork uses hand techniques on the acupoints and the musculoskeletal system. Herbal medicine draws on plant, animal and mineral substances to activate internal relationships that affect the balance and circulation of the *qi*. This also includes the use of special diets. *Qi gong* can change the circulation and the production of *qi* through exercises and meditation. It can also be performed as a therapeutic method by directing the practitioner's *qi* to a patient in order to manipulate directly the patient's circulation of *qi*.

Acupuncture

Acupuncture is based on the assumption that *qi* courses through the body just as streams and rivers ebb and flow across the surface of the earth. Every organ network has a corresponding set of channels. The acupuncture points are located in small depressions in the skin called *men* (gates), where the channels come closest to the surface. In ancient times, when cities were fortified with walls, gates were opened to receive sustenance and closed to keep harm away. With acupuncture, the gates of the body are opened and closed to adjust circulation in the channels and expel noxious influences from them.

Thin, solid, sterile stainless steel needles are inserted into acupuncture points in order to facilitate communication between the outside and the inside. Acupuncture mobilizes *qi*, body fluid and blood, invigorating the proper function of the muscles, nerves, vessels, glands and organs.

Herbal remedies and supplements

Herbal medicine is itself a powerful method of healing. Western drugs subdue symptoms, but often do not alter the disease process. For instance, antibiotics

eliminate bacteria but do not improve a person's resistance to infection; diuretics remove excess fluid without improving kidney function. Chinese herbs treat the underlying condition as defined by traditional diagnosis and rarely cause unwanted side-effects.

Herbs assist the organ networks in the performance of their tasks. Particular herbs enhance the capacity of the heart to propel the blood and soothe the mind, the functioning of the spleen to manage digestion and fluid equilibrium, of the lung to handle respiration and the body's defences, of the liver to maintain resilient emotions and supple limbs, and of the kidney to sustain sexual and regenerative power. Some herbal formulas address ailments such as colds, allergies, inflammations, or cramps with dramatic and immediate results, while others strengthen body reserves over time.

Chinese herbs are usually combined in formulas to enhance their properties and effects. Symptoms and signs are matched with therapeutic effects, reflecting the particular conditions and needs of each patient. Tonic formulas restore eroded body resources; regulating formulas decongest the *qi*, body fluid, and blood, relieving discomfort; and purging formulas eliminate adverse climates, inviting 'clear weather'.

Formulas are available in a variety of forms: crude herbs to be boiled into tea, liquid bottled extracts, or ground herbs packaged in pills and powders. Herbs, which are more like foods than drugs, can supplement the diet and strengthen the constitution as well as prevent or remedy ailments. In some cases long-term use of herbs is desirable, whereas extended use of pharmaceuticals would not be healthy.

Over a period of 2000 years before Western medicine spread into China, TCM contributed greatly to human civilization and to the health of the Chinese people. At present, more than 90% of the urban and rural population has been in contact with TCM at different stages of disease, for instance by using non-prescribed drugs available in herbal pharmacies. It is a national policy to develop both modern medicine *and* TCM, as stipulated in the 21st article of the Chinese constitution.

Integration of Western and traditional Chinese medicine

From the middle of the 17th century to the beginning of the 19th century, missionaries came to China and spread Western knowledge of the natural sciences, which marked the earliest stage of the introduction of Western medicine into China. The kind of medical knowledge introduced during this period was mainly anatomy. TCM circles responded with the strategy of 'digestion and assimilation' (*ronghui guantong*), as represented by Fang Congzhi (1611–1671)

and Wang Ang (1615–1695). After the Opium War in 1840, Western ideas concerning the political system, philosophy, the natural sciences, economy, military affairs, education, social thought and medicine spread into China and gave rise to an intense reaction in political and cultural circles. Several different views with a bearing on the future of TCM, and the contention between TCM and Western medicine, emerged at that time. Some people, educated in Western medicine regarded TCM as a product of feudalism and superstition, held it in disdain and advocated ‘complete westernization’ of Chinese medicine. Others, who had been influenced by feudalistic ideas, conservatism and conformism, regarded TCM as perfect and quintessential of China; they tried to keep it intact in an effort to maintain the supreme status of TCM. Meanwhile, some TCM doctors began to study Western medicine spontaneously and compared TCM with Western medicine. They found each of the two traditions had its own merits and advised that the two systems should benefit from each other’s strong points; they were in favour of incorporating Western medicine into TCM.

At the end of the 19th century and in the beginning of the 20th century, the ‘school of digestion and assimilation of TCM and Western medicine’ was formed. It was the inevitable result of the coexistence and competition between the two traditions. The main representatives of this school were Tang Zonghai, Zhu Peiwen and Zhang Xichun. At that time, however, there was little opportunity for demonstration and practice. Most scholars could not free themselves from the abstract framework of hypotheses, reasoning and argument, and were ultimately confined to confusion due to the limitations of scientific technology and of their cultural background.

In the 20th century, Western medicine made great progress and had a strong impact on TCM. This furthered the academic development of ‘digestion and assimilation of TCM and Western medicine’. After the foundation of the People’s Republic of China, Mao Zedong remarked: ‘The subject of TCM is a great treasure that requires further exploration and continuous improvement’ (on the occasion of a report on medical education, 11 October 1958). He called on doctors of Western medicine to learn TCM. Two years earlier he had expressed himself in a similar way: ‘As for medicine, we should study the laws of TCM with the modern scientific techniques of the Western countries, and thus develop a new medical science in China ... Chinese and Western [science] should combine organically ... TCM and Western medicine must combine’ (from a speech of 24 August 1956; published in *Guangming ribao*, 9 September 1979). From then on, the integration of TCM and Western medicine entered a new period, implying a further study of TCM guided by theories and techniques of modern science, including modern medicine. In this new development the following three stages can be distinguished.

The training of doctors of Western medicine who learned TCM and carried out clinical evaluation (from the mid-1950s to the mid-1960s)

In 1955, the Health Ministry initiated the first national programme of ‘Doctors of Western medicine learning TCM’ in Beijing. From then on, numerous programmes of this kind were organized all over the country. About 4000 doctors of Western medicine were trained in TCM during this period. They assisted experienced TCM doctors in the clinic, grasped the method of treatment based on TCM differentiation, learned from the clinical experience of old TCM doctors, and observed the therapeutic effect of TCM treatment with the diagnosis and indexes of Western medicine. Clinical evaluation not only increased the confidence of doctors of Western medicine with a training in TCM and promoted the cooperation between Western medicine and TCM, but also enhanced the academic status and scientific value of TCM and instigated new ideas about how to integrate TCM and Western medicine.

Systematic clinical observation and experimental research (from the mid-1960s to the 1970s)

Due to the call by Mao Zedong, as well as the practice of the combination of Western medicine and TCM by the first group of Western doctors with a training in TCM, medical circles paid more attention to integrating Western medicine and TCM. It became more popular among doctors of Western medicine to study TCM. The first group of Western doctors who learned TCM stuck to their own speciality and carried out systematic clinical and experimental research. During this period there were many achievements on the basis of an integration of Western medicine and TCM, such as acute abdomen pain treated by a team headed by Wu Xianzhong, fractures treated under the supervision of Shang Tianyu, cataracts treated by a team headed by Tang Youzhi, and cardiovascular diseases treated under the supervision of Chen Keji – for instance, treating acute myocardial infarction with both Western and Chinese medicine, especially the prescription of an injection tonifying *qi* and promoting blood circulation (*yi qi huo xue*). We have observed the favourable effect of such an injection, which can markedly reduce early mortality within one week after the infarction. In addition, basic research was carried out about the organ and concept of the ‘kidney’ in TCM, headed by Kuang Ankun and Shen Ziyin, as well as about the mechanism of acupuncture, headed by Han Jishen and Cao Xiaoding.

In December 1970, Premier Zhou Enlai hosted the First National Conference on the Integration of Western Medicine and TCM, which exhibited the achievements of national research on integrated Western medicine and TCM. In 1972, President Nixon visited China and was informed about acupuncture

anaesthesia, which led to a worldwide ‘acupuncture craze’ and ‘TCM craze’. On 23 July 1975, Professor Tang Youzhi, a noted ophthalmologist, treated a cataract for Mao Zedong by combining Western medicine and TCM, which further enhanced the influence of integrated Western medicine and TCM.

Continued deepening and innovative development of clinical study and research with respect to basic theories (from the 1980s to the present)

In 1980, the Health Ministry organized a National Conference on TCM and its integration with Western medicine, which confirmed that the three forms of medical science and treatment – TCM, Western medicine and integrated medicine – should develop vigorously and coexist for a long time, emphasizing at the same time that the integration of Western medicine and TCM was the right way to develop medical science in China. In 1981, authorized by the Health Ministry and the Chinese Association for Science and Technology, the Chinese Association of Integrated Western Medicine and TCM was founded. During the 1980s and 1990s, modern science and modern medicine made rapid progress, which created a favourable climate for clinical, experimental study and research with respect to basic theories; graduate students of integrated medicine were enrolled, who enthusiastically carried out high-level research, and so the construction of the subject and theoretical system of integrated Western and Chinese medicine has made great breakthroughs.

In October 1997, the First World Conference on Integrated Western and Chinese Medicine in Beijing was an epoch-making event, attended by more than 1300 representatives from all over the world. At the conference, reports were read about the achievements made during the past 40 years and it was announced that research was developing as indicated in the guideline of ‘promoting the integration of Western and Chinese medicine’, as proposed by the State Council. Speakers at the conference predicted that the integrated Western and Chinese approach would spread rapidly all over the world in the 21st century.

A comparison between TCM and Western medicine

In this new age of scientific wonders, technology makes it possible for us to attain a precise picture of the inner workings of the human body, measure infinitesimal metabolic reactions, exchange organs from one person to another, grow babies in test tubes, and maintain physiologic life when all signs of human life have gone. Our approach to health and disease has resulted in diagnostic and therapeutic capacities that are unparalleled in human history. These achievements have enabled us to alter the natural history of many diseases successfully and to provide

helpful treatment in other cases. Nothing can detract from these accomplishments. Yet scientific medicine is at its limits when confronting degenerative and stress-related diseases, which are more related to the way we think and live than to bacteria, viruses and toxins. These problems of living cannot be analysed under a microscope, cured with medicines, excised with a scalpel or eliminated through organ transplants.

Western medicine stresses the significance of matching the right drug to a particular set of symptoms, expecting patients to comply with instructions and behave passively, and it measures success on the basis of a reduction of symptoms, results of laboratory tests, or the duration of a stay in hospital. This is a technology of treatment using external agents or interventions, drugs, surgery, radiation, or physical therapy. There is not much emphasis on instructions concerning stress management, nutrition, or exercise techniques for healing, which use our natural capabilities, nor on the art of listening and learning about the individual being treated. Most notably, as a rule, Western-style medical instructions lack reference to the capacity of the human mind and body to self-heal. To put it bluntly, Western medicine focuses on disease rather than health, on pathology rather than the person, on parts rather than the whole, on an ulcer rather than an ulcerated life.

Confronted with these problems, some Western scholars began to look at the Eastern world. As a distinct and independent system originating in China, TCM is becoming increasingly popular around the world. Some unique theories and ideas of TCM are gradually attracting international attention. What, then, is the difference between Western medicine and TCM? Western medicine and TCM are two kinds of medicines that have developed under different cultural conditions, and each of them has both merits and shortcomings. If we are allowed to ignore the necessary qualifications, the differences between Western medicine and TCM can roughly be presented in the schema in Table 1.

Certain notions of TCM can enhance Western medicine. For example, holism is one of the basic characteristics of TCM. TCM attaches great importance to the unity of the human body itself and its relationship with nature, and holds that the human body is an organic whole and inseparable from the external natural surroundings. This concept of emphasizing the unity within the body and the unified relations between the body and the outside world constitutes the core of holism. The concept of holism also appeared in a book entitled *Holism and Evolution* (1926) by Jan Smuts. Smuts challenged the reductionist view of a medical science that denies the complexity and multidimensionality of the human experience. He supported the idea that the whole cannot be understood by summing up the parts. Hippocrates, the father of Western medicine, voiced similar views in his treatise *Air, Water, and Places*. He taught his students to assess

Table 1. Comparison between Western Medicine and TCM

Western medicine	TCM
Scientific	Philosophic
Analytical	Comprehensive
Local changes	Treats as a whole (holistic)
Surgical	Internal
Symptomatic	Complex-symptomatic
Theoretical	Empirical
Preventive medicine	Hygienic medicine
Social medicine	Individual medicine
Bacterial prevention	Constitutional prevention
Animal experiment	Human body experiment
Cellular pathology	Liquid (functional) pathology
Objective phenomenon	Subjective feeling
Chemical drug	Natural herb

carefully their clients' living environment in order to understand their diseases. Two-and-a-half millennia later, the noted internist, Sir William Osler, said: 'It is better to know the patient that has the disease than the disease that has the patient'. In principle, Western medicine is open to concepts that are of central importance in TCM.

What kind of medicine are we to expect?

The development of any science can be furthered by cross-fertilization based on absorption and fusion of whatever theory and experience. This also applies to practical diagnosis and treatment. We call for tolerance and medical pluralism. Micozzi, the founding editor of the *Journal of Alternative and Complementary Medicine*, once said: 'Science shouldn't use the terms "mainstream" and "alternative". Science is science.' It is our dream that, in the future, diverse modalities such as herbal medicine, acupuncture, moxibustion, *tuina* bodywork, counselling, chiropractic, hypnosis, homeopathy, naturopathy, Western medicine and other variants can work in conjunction with each other as part of a unified team rather than in competition. This integrated approach will ultimately lead to safer, faster and more effective health care.

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