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## Integrating traditional medicine into a modern health care system

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### Abstract

Traditional Medicine collectively referred to as complementary and alternative medicine (CAM) when commonly used outside their traditional context, alongside other medical systems, including Western biomedicine. The World Health Organization officially promoted traditional medicine in developing countries in 1978, there have been increasing interests among developing countries in integrating traditional medicine into a national health care system. Integrating traditional medicine into a modern health care system, moreover, can benefit industrialized nations as well. The contributions of Traditional and Modern Scientific Medicines to health care delivery have attracted a great deal of attention in most communities worldwide. Traditional Chinese medicine, Ayurveda, Kampo, traditional Korean medicine, and Unani have been practiced in some areas of the world and have blossomed into orderly-regulated systems of medicine. More than 80% of the world's population in over 170 of WHO's 194 Member States currently use some form of traditional medicine, such as herbal medicine, yoga, Ayurveda, acupuncture and acupressure, and indigenous therapies. To generate awareness about traditional medicine, since the 1980s, a number of publications on self-health care have been developed to inform people about the benefits and uses of traditional medicine. Some of the areas of focused research include studies on the development of anticancer drugs, cardiovascular diseases such as arteriosclerosis and angina pectoris, respiratory diseases such as bronchial asthma, obesity, diabetes and other metabolic disorders, and basic studies on acupuncture therapeutic mechanisms for various bone and joint and spinal disorders, and on different kinds of composition of the human body. To ensure the safety, standardization, efficacy and quality of traditional medicines, the practitioners must follow the same stringent standards and regulations for production and use of traditional medicines as are followed for allopathic medicines. This study aims to summarize the advancements made in understanding the efficacy, effectiveness of Traditional Medicine. Traditional and local knowledge systems need to be protected, preserved, and studied as different ways to approach modern healthcare, science, and technology at large. Significant challenges exist in integrating the differing perspectives. Traditional knowledge is derived from years of history and experience and is preserved through long, complex narrations lacking the traditionally rigorous scientific scrutiny required by modern medicine. Modern scientists are prone to quickly dismiss its merit, considering it to be irrelevant as a result. For many, traditional medicine is the first port of call, and practitioners of traditional medicine have played an important role in treating chronic illnesses. These traditional medicines and practices have been preserved, organized and modernized during the past several decades, and have been fully integrated into the national health-care delivery systems from the central to the most peripheral administrative levels.

**Keywords:** TM; CAM; Health; Herbs; Acupuncture; Medicine

### 1. Introduction

In the case of China, Western medicine was introduced in the sixteenth century, but it did not undergo any development until the nineteenth century. Before that, TCM was the dominant form of medical care in the country. Now TCM still plays an important role in China, and it is constantly being developed. TCM is based on 5000 years of medical practice

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and experience, and is rich in data from “clinical experiments” which guarantee its effectiveness and efficacy. It has developed techniques with respect to such areas as correct dosage, methods of preparing and processing materials, and the appropriate time to collect the various medicinal parts of plants. Since prehistoric times, humans have used natural products, such as plants, animals, microorganisms, and marine organisms, in medicines to alleviate and treat diseases. According to fossil records, the human use of plants as medicines may be traced back at least 60,000 years. Humans invented fire, learned how to make alcohol, developed religions, and made technological breakthroughs, and they learned how to develop new drugs. With advances in the theoretical background, therapeutic principles, associated technologies, and understanding of the life sciences, a clearer understanding of the active compounds of TCM has become possible. Natural products are important for the development of new drugs, and these products have been in constant use. Some type of medicines, such as anticancer, antihypertensive, and antimigraine medication, have benefited greatly from natural products. Considering their incomparable chemical diversity and novel mechanisms of action, natural products have continued to play a pivotal role in many drug development and research programs. Among 69 small-molecule new drugs approved from 2005 to 2007 worldwide, 13 were natural products or originated from natural products, which underlines the importance of such products in drug research and development. Traditional Medicine is the oldest form of health care in the world and is used in the prevention, and treatment of physical and mental illnesses. Different societies historically developed various useful healing methods to combat a variety of health- and life-threatening diseases. TM is also variously known as complementary and alternative, or ethnic medicine, and it still plays a key role in many countries today. TM offers merits over other forms of medicine in such areas as the following: discovery of lead compounds and drug candidates; examining drug-like activity; and exploring physicochemical, biochemical, pharmacokinetic, and toxicological characteristics. The effects of acupuncture and moxibustion in treating diseases occur through stimulation of specific acupoints that regulate bodily functions. These acupoints are connected by a network of meridians that play a crucial role in facilitating therapeutic effects. Although the anatomical foundation of these meridians remains unclear, acupuncture point stimulation can activate somatosensory-autonomic reflexes that widely influence bodily functions. This process starts with the activation of sensory nerve fibers located in the dorsal root ganglion (DRG) or trigeminal ganglion, followed by the transmission of sensory information to the spinal cord and brain, and ultimately, the activation of peripheral autonomic nerves that regulate bodily functions [1-6].

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## 2. Integrating Traditional Medicine into a modern health care system

It was reckoned by WHO that a large quantity of people in the world still depend on TMs for health care. The current status of TM differs in different countries. In 2012, the total value of the TCM industry was equivalent to around one-third of the total for China’s pharmaceutical industry. It has been determined that 80% of the population in Africa makes use of TM—either alone or in conjunction with conventional medicine. It is possible to produce remarkable synergy and yield great benefits in developing reformed medicines and new drugs by connecting powerful modern scientific techniques and methods with the reasonable ethnobotanical and ethnomedical experiences of TM. American, German, and British pharmacopeias were integrated into the Chinese national health system to identify and control the quality of both synthetic and naturally sourced medicines during a period of population growth, displacement, and worldwide conflict in the early 1900s. It significantly influenced the production of the first Chinese pharmacopeia (ChP) in 1977, which remains the foundation on which the current 10 successive editions were based, integrating a blend of millennia-old antecedent traditional and cutting-edge biomedical knowledge. In 2008, the European TCM Working Group collaborated with the Chinese State Administration of TCM (SATCM) to establish monographs for the European pharmacopeia. This collaboration highlights the countercurrent influence, as Chinese medicine is now impacting Western medicine. Further scientization is apparent from the shift in the ChP commission plan to adopt International Conference on Harmonization (ICH) guidelines to strictly inform the choice, development, and validation of analytical biomedical methods to identify and define “acceptable quality” of Chinese herbal medicine. The concepts of care and healing are referenced within the framework of “Ubuntu” or “Botho,” as referred to in Botswana. These phrases emphasize the interrelationships among humans, society, the environment, and spirituality. The concept of “Ubuntu” is based on principles of generosity, hospitality, loyalty, honesty, and reverence for elders, ancestors, nature, and the divine, due to their inherent interconnection. The idea of “Ubuntu” in healing emphasizes the need for a holistic approach to human well-being and recovery, which includes identifying root causes and implementing preventive measures that embody both pathogenic and social factors. Acupuncture research is characterized by two primary methodologies for scientific validation: randomized clinical trials (RCTs) and mechanistic exploration. Electroacupuncture stimulates acupoints to activate specific regions and modulates the physiological processes that generate therapeutic effects. This falls under the remission of the growing field of bioelectronic medicine. The acceptance of improved traditional medicines depends on scientific evidence, proving their safety and effectiveness, standardizing their dosage forms, and implementing strict quality control measures.

The World Health Organization (WHO) has formulated global standards and technical recommendations, such as those pertaining to the evaluation of the safety and efficacy of herbal medicines and the conduct of clinical acupuncture research. These guidelines were established in accordance with various resolutions of the World Health Assembly and Executive Board, indicating substantial support from global authoritative bodies. The TCM and health industries have seen increased activity focusing on integrating TCM with the pension and tourism sectors. The overall output value of the TCM industry has grown significantly from 23.4 billion RMB in 1996 to 786.7 billion RMB in 2015, largely due to advancements in scientific and technological innovation. This increase accounts for approximately one-fifth to one-third of the pharmaceutical industry's total output.

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### 3. Discussion

Modern medicine is based on rational scientific discourse, accredited knowledge, and standard ethical regulations, while alternative medicine is based on non-rational, non-scientific, non-technical, holistic philosophies. As modern medical practices have become mainstream, a competition with traditional practices has grown and created a divide in healthcare. TCM is now an inseparable part of the Chinese public health system. In recent years, TCM has gradually gained considerable approval as a complementary or alternative medicine in Western countries. Chinese herbal medicine, which is the most important component of TCM, is currently used in the health care of an estimated 1.5 billion people worldwide. Kampo is the TM of Japan. Between the fifth and sixth centuries, TCM was introduced to Japan from China; since then, TCM has been significantly altered and adapted by Japanese practitioners to meet their particular circumstances and gradually evolved into Kampo. A recent study has found that some physicians in Japan use Kampo medicines in their daily practice, sometimes as the preferred medication. Together with radiotherapy or chemotherapy, some Japanese physicians frequently utilize Kampo medicines in treating cancer patients. This indicates how modern Western medicine can be well integrated with TM. Unani is an ancient Greek holistic medical system with a history that can be traced back 2500 years. Since the mid-1970s, when the WHO began to place a greater focus on TM, Unani has attracted considerable attention all over the world, especially in India, where it has been integrated into the national health care system. The availability of traditional medicine courses is limited, and they are difficult to test and standardize. Therefore, the predominant bias in evaluating clinical research data is through a biomedical lens, which is yet to develop into a fully modern and compatible conceptual framework to incorporate more holistic considerations.

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### 4. Conclusion

Almost 20 years ago, a thorough investigation of the pharmacopoeias of developed and developing nations and the associated world scientific literature was conducted as part of the WHO's TM Program. TM had inspired modern drug discoveries and there was correlation between the current use of various compounds and their application in TM. Various compounds used in drugs derived from plants in different countries, and it established that TM had indeed played a significant role in developing effective new drugs. The acceptability, convenience, and accessibility of TMs have been and will be helpful for new drug research. Valuable information on natural products and TMs is mixed in a large number of documents, data, and useless rumors. This modern approach provides valuable reference data for traditional medications, thus benefiting the global community. To generate awareness about traditional medicine, since the 1980s, a number of publications on self-health care have been developed to inform people about the benefits and uses of traditional medicine. Traditional and local knowledge systems need to be protected, preserved, and studied as different ways to approach modern healthcare, science, and technology at large. Significant challenges exist in integrating the differing perspectives. Traditional knowledge is derived from years of history and experience and is preserved through long, complex narrations lacking the traditionally rigorous scientific scrutiny required by modern medicine. Modern scientists are prone to quickly dismiss its merit, considering it to be irrelevant. For many, traditional medicine is the first port of call, and practitioners of traditional medicine have played an important role in treating chronic illnesses. These traditional medicines and practices have been preserved, organized and modernized during the past several decades, and have been fully integrated into the national health-care delivery systems from the central to the most peripheral administrative levels.

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