

Development Strategy of Chinese and Western Integrative Medicine Under New Circumstances

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Abstract: In 2020, the coronavirus disease (COVID-19) broke out and rapidly spread worldwide. Chinese and Western integrative medicine, a unique medical model in China, has played an essential role in the fight against the epidemic. We need to learn from the fight against the epidemic to promote Chinese and Western integrative medicine and provide academic support and theoretical guarantee for the national health and medical undertakings. First, we review Chinese and Western integrative medicine achievements since 1949 using a literature review and questionnaire survey and summarize the key roles of this integrative medicine in the prevention and control of COVID-19. Subsequently, we analyze the challenges in developing integrative medicine in terms of medical resources, clinical education and research, and internationalization. We propose the objectives for this discipline based on the current circumstances in China, including the inheritance and innovation of Chinese and Western integrative medicine and leading the integration of Chinese traditional medicine with Western medicine. Furthermore, we suggest that China should improve the Chinese and Western integrative medicine governance system, enhance talent training in this discipline, actively promote international exchange, and encourage the Chinese and Western medicine integration culture.

Keywords: Chinese and Western integrative medicine; evidence-based medicine; evaluation system; talent training; COVID-19

1 Introduction

Chinese and Western integrative medicine combines traditional Chinese and Western medicine to create a new unified practice of medicine and pharmacy in China. For decades, national policies have encouraged and supported the integration of Chinese and Western medicine. A breakthrough has been achieved with the actual application of integrative medicine, and professionals made outstanding contributions to ensuring residents' health. However, controversies about the combination of traditional Chinese and Western medicine still exist. There are clinical scientific research limitations and insufficient resources for developing Chinese and Western integrative medicine, which should be overcome urgently to gain international recognition.

We focused on the scale of Chinese and Western integrative medical institutions, personnel training structure

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and quality, and clinical research systems in response to the abovementioned problems. We launched macro research on Chinese and Western medicine development to seek uniform understanding, clarify ideas, and promote development. This paper combines practical experiences regarding the coronavirus disease 2019 (COVID-19) pandemic, highlights achievements, and summarizes development status. It focuses on development bottlenecks regarding medical, scientific research, talent training, and internationalization aspects, demonstrating the new situation's constructive goals. This was done to give a theoretical reference to the development of new integrated medicine that has China's original concept and is quantifiable, repeatable, and easy to promote.

2 The status and achievements of Chinese and Western integrative medicine

China has paid attention to Chinese and Western integrative medicine and emphasized the development of Chinese medicine. In 2016, the China issued the *Strategic Plan for Traditional Chinese Medicine (2016–2030)*. In 2017, the *Law of the People's Republic of China on Traditional Chinese Medicine* was formulated to encourage the complementation and integration of Chinese and Western medicine [2]. In 2018, the Government Work Report encouraged Chinese and Western integrative medicine by proposing to support the innovative development of the Chinese medical industry [3]. In 2019, the National Conference on Traditional Chinese Medicine promoted Chinese and Western integrative medicine to create a health development mode with Chinese characteristics [4].

The support of national policies has boosted the combination of traditional Chinese and modern Western medicine, accelerated the modernization of traditional Chinese medicine (TCM), and promoted the medical sectors of China and abroad. Artemisinin won the Nobel Prize, the first in China's natural science field (2015). Many Chinese and Western integrative medical achievements have obtained national awards, including studies on combining disease and syndrome, blood stasis syndrome, promotion of blood circulation to remove blood stasis, a crucial technology for TCM safety, secondary development of TCM, artificial musk industrialization, arsenic preparation for leukemia, and diagnosis and treatment of immunoglobulin A nephropathy. These major developments show that Chinese and Western integrative medicine, a medical system unique to China, plays an essential role in protecting residents' health.

3 Chinese and Western integrative medicine contributes to the prevention and control of the COVID-19 epidemic

TCM has a long history of preventing and treating infectious diseases in China and has accumulated rich experience. Especially for unknown viruses for which no specific drugs and vaccines have been developed, Chinese and Western integrative medicine can significantly improve clinical symptoms, provide better life support, enhance patients' diseases resistance, and achieve sound comprehensive curative effects.

TCM has been deeply involved in preventing and controlling public health emergencies and major infectious diseases in the country. We learned several lessons from the 2003 SARS epidemic that helped prevent and control the COVID-19 pandemic. TCM and the combined use of traditional Chinese and Western medicine were used in the early stage. First, China urgently launched the special project "Study on the Screening of Effective Chinese Medicine Prescriptions for Prevention and Treatment of the New Coronavirus Pneumonia," finding core prescriptions with sound curative and special effects against COVID-19. For the Qingfei Paidu Decoction and other TCM prescriptions, a multicenter clinical efficacy observational study was conducted. The effective prescriptions were included in the diagnosis and treatment plan, promoted, and applied nationwide. The National Health Commission Office of Health released eight editions of the *Guideline for New Coronavirus Pneumonia Diagnosis and Treatment (Trial)*. The TCM diagnosis and treatment plan has been added to the 3rd edition, and since then, it has gradually integrated TCM and Western medicine. The establishment of TCM shelter hospitals and a joint consultation and patrolling system for Chinese and Western integrative medicine has given full play to the unique advantages of traditional medicine [5]. Each province issued corresponding strategies and guidelines to prevent and treat COVID-19 with Chinese and Western integrative medicine following their climatic conditions.

Presently, approximately 50 clinical studies on the prevention and treatment of COVID-19 with Chinese and Western integrative medicine are underway worldwide. The registration scheme, which covers the prevention, diagnosis, treatment, and rehabilitation processes of patients with COVID-19, a comprehensive study represented by the randomized controlled trial of the TCM "Fufang Huaqingwen Capsule," provides a higher level of clinical evidence in treating COVID-19 using Chinese and Western integrative medicine [6]. However, under the normalization of epidemic prevention and control, strengthening the collaboration to clarify the effectiveness of TCM still needs to be studied in the research for Chinese and Western integrative medicine.

4 Bottlenecks and challenges facing the development of Chinese and Western integrative medicine

4.1 Insufficient resources for Chinese and Western integrative medicine

Until the end of 2019, the total number of medical and health institutions nationwide was approximately 1.007×10^6 , and the total number of sickbeds was about 8.807×10^6 . There are only 699 Chinese and Western integrative hospitals with approximately 1.177×10^5 sickbeds (less than 1% of the total). There are 468 Chinese and Western integrative medical clinics and 8360 Chinese and Western integrative medical ambulatories (a decrease of 29 from 2018). This indicates that Chinese and Western integrative medicine has insufficient capacity to deal with major public health incidents, and relevant epidemic prevention systems need to be improved.

High-level professionals in Chinese and Western integrative medicine are relatively insufficient, and basic theoretical research and technological innovation capabilities are lacking. This is related closely to the insufficient construction of Chinese and Western integrative medical platforms. As of 2019, only two research institutes for Chinese and Western integrative medicine exist in the country; there are 749 national key disciplines of TCM. Chinese and Western integrative medical-related units account for only 9%, and only eight Chinese and Western integrative medical training units supported by the Ministry of Education exist [7,8].

Although the state's investment in medicine and health has maintained steady growth, its proportion is still low. In 2019, the health sector's fiscal appropriation accounted for 3.23% of national fiscal expenditure, whereas Chinese medicine (including TCM, Chinese and Western integrative medicine, and ethnic medicine) accounted for only 0.2% of the national fiscal expenditure. Insufficient resources for Chinese and Western integrative medicine, hospitals, and research institutions have restricted Chinese and Western integrative medicine development.

4.2 Limitations in clinical education and scientific research on Chinese and Western integrative medicine

The clinical education of Chinese and Western integrative medicine started late in China. The Clinical Medicine Specialty of Traditional Chinese and Western Medicine was only formally established in 2001 (approved by the Ministry of Education). By 2017, only 50 colleges and universities had introduced Chinese and Western integrative medicine majors. Presently, Chinese and Western integrative medicine's clinical education resources are insufficient; the structure needs to be optimized, and its professional construction is still in its infancy. Related limitations are that the concept and positioning of Chinese and Western integrative medicine education and training are vague, and the phenomenon of homogeneity with other Chinese medical specialties is evident. The integration of traditional Chinese and Western medicine courses is not enough, and the course setup is not uniform. TCM's classical theoretical courses are over-compressed, such as the *Medical Classic of the Yellow Emperor*. These courses focus on theoretical teaching and lack clinical practices. The undergraduates and graduates majoring in Chinese and Western integrative medicine are difficult to satisfy market requirements and thus hard to find jobs.

There are also some shortcomings in clinical scientific research on Chinese and Western integrative medicine. For example, the judgment of the TCM syndrome type is based mainly on subjective factors. Although there are objective and commercial instruments, such as pulse and face diagnostic instruments, their accuracy must be further improved. The leading evaluation indicators are symptom improvement and untoward effects, which are less objective and conviction and can only provide preliminary research evidence for clinical treatment. There are few cooperative studies on Chinese and Western medicine whose results are not fully recognized. Therefore, it is necessary to strengthen further the methodological design of clinical scientific research on Chinese and Western integrative medicine, optimize the intervention plan and the efficacy evaluation index, and improve operability.

4.3 Chinese and Western integrative medicine faces restrictions and barriers in the world

TCM theories originate from ancient Chinese philosophy, and Western medicine originates from Western natural sciences. One focuses on holism and the other on the mechanism of organization–cell–molecule. It is a challenge to synchronize and communicate these medical systems as they are different concepts. Simply using the language and standard of Western natural sciences to evaluate traditional medicine will further limit the international influence of integrative medicine.

Enhancing international recognition, improving the accuracy and repeatability of diagnosis and treatment, evaluating traditional Chinese medicine, and promoting people's understanding of the effectiveness and safety of TCM will contribute to the development of Chinese and Western integrative medicine in the current and subsequent period. However, international cooperation is limited due to the deficiency of international standards

for Chinese and Western integrative medicine, shortage of international cooperation, and difficulties in raising funds abroad.

5 Key construction content of Chinese and Western integrative medicine

5.1 Overall construction goals

Chinese and Western integrative medicine focuses on combining the advantages of TCM and Western medicine, thus avoiding their disadvantages. It reflects the integration of a holistic view with systems biology and individualization with precision medicine. Chinese and Western integrated medicine uses modern language to clarify the scientific connotation of TCM [9]. In the process of fighting the COVID-19 pandemic, the National Health Commission and the National Administration of Traditional Chinese Medicine issued a notice requesting that the Chinese and Western integrative medicines be complied with to strengthen joint prevention and control. Relevant works have achieved good results, verifying the importance of adhering to Chinese and Western integrative medicine. Focusing on long-term development needs, we suggest developing Chinese and Western integrative medicine, including mainly the following aspects.

First, the Chinese and Western integrative medicine governance system and capabilities should be advanced and modernized rapidly. Legal, standards, and supervision systems that conforms to the development of Chinese and Western integrative medicine objective laws must be established. Thus, the management system must be made across the board, laying a solid foundation to build a healthy China.

Second, substantial improvements in Chinese and Western integrative medical research should be achieved to prevent and treat diseases. The focus must be on strengthening the medical service capabilities of Chinese and Western integrative medicine and on significantly improving residents' access to these health services. The national Chinese and Western integrative medicine prevention and treatment system for major chronic and infectious diseases must also be enhanced. The support system to develop Chinese and Western integrative medicine must be improved, and talent developed to enhance the industry's overall scientific research and industrial intelligence level.

Third, the international influence of Chinese and Western integrative medicine must be expanded, and international exchange and cooperation strengthened. The industry must be guided rapidly to accelerate integrative medicine development worldwide. Moreover, to maintain the development of inherited and innovative Chinese and Western integrative medicine, inclusive and open development, and shared development among residents must be encouraged.

5.2 Construction pathway of medical service capacity

General hospitals should be supported to improve their Chinese and Western integrative medical ability and play a leading and exemplary role. The establishment of TCM clinical departments and pharmacies must be standardized in general hospitals, the construction of TCM clinical departments strengthened in primary general hospitals, and informatization ensured. TCM should be incorporated into the multidisciplinary joint consultation system. Collaborative research must be conducted on traditional Chinese and Western medicine at various levels, such as general, TCM, and wards in general hospitals.

Chinese and Western integrative medicine hospitals should be established to prevent and treat infectious diseases, and the national medical system improved to prevent and treat infectious diseases with integrated traditional Chinese and Western medicine. The formation of a long-term working mechanism must be optimized, and the emergency response capabilities and treatment levels improved steadily in response to new and emergent infectious diseases and public health emergencies.

The unique diagnosis, treatment, and comprehensive service capabilities of Chinese and Western integrative medicine should be enhanced, and the establishment of pediatric, gynecological, anorectal, and other specialist hospitals of Chinese and Western integrative medicine should be prioritized. Medical rehabilitation institutions with Chinese and Western integrative medicine should also be developed, and nondrug therapies and appropriate TCM technologies promoted.

5.3 Construction path in education and scientific research

5.3.1 Improve the clinical scientific research system of Chinese and Western integrative medicine education

A multilevel complementary Chinese and Western medicine education system through medical education

collaboration should be established. Medical colleges should be encouraged to set up special teaching and practical traditional Chinese and Western medicine courses and support Western and basic medicine graduates to apply for postgraduate degrees in Chinese and Western integrative medicine. A group of Chinese and Western integrative medicine majors must be cultivated with regional and national characteristics in “double-first class” colleges and universities. Medical students of Chinese and Western integrative medicine should be strengthened and obtain clinical competence. We pay attention to clinical diagnosis and treatment ability training in the curriculum setting and conduct necessary teaching reforms based on social needs. Universities must be supported to set up specialties, such as majors in Chinese and Western integrative medicine health promotion and management.

Chinese and Western integrative medicine health management technologies and products should be developed; the research and development of modern technology products based on big data theory, such as eye diagnostic instruments, should be supported, and the objectivity and standardization of TCM diagnosis should be improved. The scale of research funds to demonstrate and promote Chinese and Western integrative medicine must be expanded. The basic and clinical research of classic prescriptions and characteristic medical techniques in TCM must be deepened. Modern chemistry, materials, biomedical engineering, artificial intelligence (AI), and other TCM technologies must be combined. Chinese and Western integrative medicine characteristics must be highlighted, innovation inherited, and the interpretation of scientific connotations strengthened. The research and development of independent, innovative products must be conducted actively, combining Chinese and Western integrative medicine with innovative medicine, such as new eye diagnostic instruments and moxibustion equipment. An information platform for Chinese and Western integrative medicine must be expanded to provide the conditions necessary to deepen global academic exchange in response to the need for normalized prevention and control of the COVID-19 epidemic.

5.3.2 Enhance Chinese and Western integrative medicine’s clinical research capabilities that complement evidence-based medical research with real-world research

Various prevention and treatment guidelines for the *New Coronavirus Pneumonia Diagnosis and Treatment Plan (Trial)* involving Chinese and Western integrative medicine have been issued locally and nationally. However, it takes time to reach a consensus because of the lack of objectivity in diagnosis and treatment evaluation indicators. The early intervention of Chinese and Western integrative medicine is crucial. However, TCM treatment based on syndrome differentiation is mostly subjective, based mainly on the personal experience of the doctor, which partially restricts the use of Chinese and Western integrative medicine [10–12]. All these indicate that a more reasonable evaluation system of Chinese and Western integrative medicine should be established to provide robust evidence and accelerate acceptance.

A modern Chinese and Western integrative medicine diagnosis and treatment model should be established based on “differentiated treatment of syndromes and combination of disease stage with syndromes.” The best combination of Western medicine “differentiation of disease” and TCM “differentiation of syndromes” must be researched and refined, thus showing the guiding value of the independent existence of Chinese and Western integrative medicine. The combination mode of “macro differentiation of syndromes + stage differentiation + micro differentiation of diseases” must be refined to form an optimized treatment method combining syndrome, stage, and disease differentiation. The “combination of diseases, syndromes, and stages” should be promoted; the early detection and diagnosis of diseases (early warning) supported; and the objectification, standardization, and internationalization of TCM syndromes realized.

A clinical evaluation system and corresponding international promotion model of Chinese and Western integrative medicine that complements evidence-based medical research and real-world research should be established. A multicenter, large-sample data network information system and resource platform must be developed, including systems biology and multi-omics features, and a “four-in-one” resource library covering TCM syndromes, Western medicine, pathological samples, and biomarkers should be established. Chinese and Western integrative medicine diagnosis and treatment strategies must be demonstrated and promoted, based on the complementarity of evidence-based medicine and real-world research into the national medical security system, a roadmap and action plan developed to promote integrated Chinese and Western medicine, and the corresponding international communication mode improved.

6 Countermeasures and suggestions

6.1 Improving the governance system of Chinese and Western integrative medicine

We recommend improving the supporting regulations and departmental rules of Chinese and Western integrative medicine regarding epidemic prevention and control, TCM supervision, diagnosis and treatment standards, and occupational scope following the *Law of the People's Republic of China on Traditional Chinese Medicine*. (1) The prevention and control measures of Chinese and Western integrative medicine must be improved at the legal level to prevent and control new infectious diseases, the unique advantages of Chinese and Western integrative medicine given full play, and the proactive and preventive disease prevention and control system optimized. (2) The regulatory standards for developing and producing TCM should be strengthened, the quality of TCM drugs improved, and the creative ability of Chinese and Western integrative medicine preparations stimulated. (3) A standard system for quality control and processes should be established; technical specifications for Chinese and Western integrative medical diagnosis and treatment developed; the standardization and standardized construction of Chinese and Western integrative medicine strengthened; and clinical diagnosis and treatment behaviors of Chinese and Western integrative medicine standardized, especially the style and format of clinical and management guidelines. (4) The practice scope of Chinese and Western integrative medicine talents must be expanded rationally, and both the incentive and guarantee mechanisms for Chinese and Western integrative medicine physicians and the professional–technical title evaluation system improved. (5) Effective treatment technologies and products of Chinese and Western integrative medicine should be incorporated into the scope of medical insurance.

6.2 Strengthening the training of personnel and team regarding Chinese and Western integrative medicine prevention and treatment

The training of talents in Chinese and Western integrative medicine should be strengthened, and the educational framework system improved. (1) A unique talent training project for Chinese and Western integrative medicine must be established to meet the needs of the Internet + Healthcare industry; multidiscipline and AI technology should be integrated into the talent training system, and the of Chinese and Western integrative medicine to prevent and control infectious diseases must be improved. (2) The self-branded Chinese and Western integrative medicine talent training project must be implemented, focusing on multidisciplinary collaborative training, enhancing professionalism, international communication, and innovation capabilities of personnel, and building a “high-level and professional” business team. (3) Continuing education must be deepened, a profession education system with Chinese and Western integrative medicine characteristics built, and a standardized training program and system for residents with Chinese and Western integrative medicine characteristics established, focusing on cultivating compound and practical talent. (4) Outstanding TCM and Western medicine talent must be employed in the Chinese and Western integrative medical team, the scientific deployment and logical flow of Chinese and Western integrative medicine physicians promoted, and the primary diagnosis and treatment service system of the community strengthened.

6.3 Promoting the development of international exchange of Chinese and Western integrative medicine

International exchange is the inevitable way to promote Chinese and Western integrative medicine to the world. (1) Chinese and Western integrative medicine should focus on the scope of international cooperation under the Belt and Road initiatives, and the research results of integrated Chinese and Western medicine included into the Belt and Road initiatives medical and health package; social forces must be encouraged to build a batch of high-quality Chinese and Western integrative medicine in the countries in the Belt and Road Initiatives, including overseas centers, international cooperation bases, and service export bases. (2) The role of folk forces must be used and played reasonably. Hospitals, universities, scientific research institutions, and overseas Chinese organizations that integrate Chinese and Western medicine must be mobilized to form an international health community with diversified supply forces. (3) Academic exchanges should be strengthened and international exchanges and cooperation supported in various ways, such as integrative medicine and journal-publishing forums. (4) The focus must be placed on transforming Chinese and Western integrative medicine medical results, integrating medical technology with commodity trade, producing various medical products and technical cooperation, and expanding international influence. (5) Cross-country and cross-regional professionals and project exchanges should be encouraged to promote international professional training and Chinese and Western medicine integration.

6.4 Promoting the culture of Chinese and Western integrative medicine

The essence of TCM culture must be condensed and the spread of Chinese and Western integrative medicine culture promoted. (1) The cultural connotations of TCM must be explored in detail, the core values and concepts of TCM culture must be spread, and residents must be guided to cultivate healthy living habits and spiritual pursuits consciously. (2) The cultural promotion and knowledge popularization of Chinese and Western integrative medicine should be strengthened; the project to improve the health and cultural literacy of Chinese and Western integrative medicine implemented; the content and methods of communication enriched; and a Chinese and Western integrative medicine cultural communication talent team built. (3) An all-media dissemination platform for the culture of Chinese and Western integrative medicine should be built; a cultural boutique created; the development of Chinese and Western integrative medicine promoted, which include film and television, news publishing, digital publishing, animation and games, tourism, catering, and sports fitness; and an excellent Chinese and Western integrative medicine cultural brand created. (4) The professional spirit of “a master physician must have both superb medical skills and a desire to help the world” must be advocated vigorously and a good industry fashion formed; the cultural construction of medical, health, education, scientific research, industry, and other institutions of Chinese and Western integrative medicine strengthened; and an excellent humanistic environment unique to this industry must be shaped.

References

- [1] Ma J. Historic research on confluence of Chinese and western medicine, scientificized Chinese medicine and integration of Chinese medicine and western medicine [D]. Haerbin: Heilongjiang University of Chinese Medicine (Doctoral dissertation), 2013. Chinese.
- [2] National Administration of Traditional Chinese Medicine. Law of the People’s Republic of China on Traditional Chinese Medicine [EB/OL]. (2016-12-26) [2020-05-15]. <http://fjs.satcm.gov.cn/zhengcewenjian/2018-03-24/2249.html>. Chinese.
- [3] Li K Q. Government work report 2018 [EB/OL]. (2018-03-05) [2020-05-15]. http://www.gov.cn/zhuanti/2018lh/2018zfgzbg/2018_zfbgdzs.htm#book7/page1. Chinese.
- [4] Editorial Board of Modern Chinese Medicine. Inheriting essence and maintaining innovation: Warmly celebrating the National Conference of Traditional Chinese Medicine [J]. *Modern Chinese Medicine*, 2019, 21(10): 2. Chinese.
- [5] National Health Commission of the People’s Republic of China. China-WHO novel coronavirus pneumonia (COVID-19) joint investigation report [EB/OL]. (2020-02-29) [2020-05-15]. http://www.nhc.gov.cn/xcs/fkdt/202002/87fd92510d094e4b9bad597608_f5cc2c.shtml. Chinese.
- [6] Chan K W, Wong V T, Tang S C W. COVID-19: An update on the epidemiological, clinical, preventive and therapeutic evidence and guidelines of integrative Chinese–western medicine for the management of 2019 novel coronavirus disease [J]. *The American Journal of Chinese Medicine*, 2020, 48(3): 737–762.
- [7] National Health Commission of the People’s Republic of China. Statistical bulletin of health development 2019 [EB/OL]. (2020-06-06) [2020-05-15]. <http://www.nhc.gov.cn/guihuaxxs/s10748/202006/ebfe31f24cc145b198dd730603ec4442.shtml>. Chinese.
- [8] Du J, Li A H, Zhan Q M, et al. Strategic study on medical education and personnel training in China [J]. *Strategic Study of CAE*, 2019, 21(2): 55–60. Chinese.
- [9] Mao J Y, Bi Y F, Zhang B L, et al. The development strategy of integrated traditional Chinese and western medicine: A review [J]. *Chinese Journal of Integrative Medicine*, 2019, 39(9): 1036–1038. Chinese.
- [10] Zheng W K, Zhang J H, Zhang B L, et al. Comprehensive analysis of diagnosis and treatment schemes for prevention and treatment of novel coronavirus pneumonia by traditional Chinese medicine [J]. *Journal of Traditional Chinese Medicine*, 2020, 61(4): 277–280. Chinese.
- [11] Miao Q, Cong X D, Wang B, et al. Understanding and thinking of novel coronavirus pneumonia in traditional Chinese medicine [J]. *Journal of Traditional Chinese Medicine*, 2020, 61(4): 286–288. Chinese.
- [12] Yu M K, Chai Q Y, Liang C H, et al. An analyze of the traditional Chinese medicine prevention and treatment interventions for COVID-19 [J]. *Journal of Traditional Chinese Medicine*, 2020, 61(5): 383–387. Chinese.