

Article

An Overview of the Development History of Ancient Chinese Medical Education

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Abstract: Traditional Chinese medical education, as an essential component of Chinese civilization, not only carries profound cultural heritage but also reflects the development of ancient Chinese science and technology. The evolution of medical education mirrors the exploration of medical theories and practices in ancient China. Traditional medical education played a vital role not only in the transmission of knowledge and cultivation of skills but also in providing a solid foundation for the medical system and cultural advancement of ancient Chinese society [1]. From the earliest form of oral transmission to later institutionalization and standardization, and to the modern medical education reforms, the development of medical education reveals the wisdom and innovation of ancient Chinese society in the face of medical challenges. This paper aims to review the history of traditional Chinese medical education, from its origins to its development across different historical periods, discussing its critical role in the inheritance of medical theory and practice, as well as its profound influence on modern medical education.

Keywords: Chinese medical education; development; history

1. The Origins and Early Forms of Medical Education

The origin of Chinese medical education can be traced back to ancient times [2]. During this period, medical learning primarily took the form of "oral transmission," where knowledge and skills were passed down through word of mouth and hands-on demonstration, often within families or tribes. This method reflected the "master-apprentice" educational characteristic, with medical knowledge being transmitted by experienced elders, shamans, or professional doctors through face-to-face guidance. Although there were no formal educational institutions at this time, and medical knowledge had no fixed textbooks, this period's medical education gradually accumulated valuable experience and theory through the process of transmission.

In ancient China, the accumulation of medical knowledge was often achieved through the transmission of classical texts. The Huangdi Neijing (Yellow Emperor's Inner Canon) is one of the most important early medical classics. Not only did it lay the theoretical foundation for traditional Chinese medicine, but it also established the philosophical framework for Chinese traditional medicine. This book combines medicine with other disciplines like philosophy, astronomy, and geography, making it the cornerstone for later generations of medical education. However, during this period, the transmission of medical knowledge did not form a strict institutional system and was still dominated by the master-apprentice relationship, with interactions between scholars and students mainly based on oral instruction. The connection between theoretical research and practical operation was relatively loose.

In the Western Zhou period, there was a rudimentary medical examination system, which began selecting and managing doctors by examining practitioners through a four-

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tier classification. Although this system was not fully developed, it provided the foundation for the later standardization and institutionalization of medical education. With the preliminary development of this system, medical education gradually shifted from family-based, personal transmission to a more formal educational system, laying the groundwork for future developments in Chinese medicine.

2. The Initial Institutionalization of Medical Education (Warring States to Han Dynasty)

During the Warring States period, as the Hundred Schools of Thought flourished, medicine gradually became a respected discipline[3]. The appearance of famous doctors such as Bian Que and Hua Tuo not only advanced medical theory but also promoted the transmission of medical education. Particularly Hua Tuo, who made significant breakthroughs in surgery and anesthesia, influenced the content and form of medical education through his clinical practice. As the influence of these medical figures grew, medicine began to be regarded as an important academic field and gradually formed a more systematic educational framework.

In the Han Dynasty, medical education further developed, particularly after the establishment of the Taiyi Shuo (Imperial Medical Institute), which marked the beginning of the institutionalization of medical education. The Taiyi Shuo, the first dedicated medical management institution in Chinese history, not only handled the medical affairs of the imperial court and nobility but also took on the responsibility of training and examining imperial medical officials. The establishment of the Taiyi Shuo signified the shift of Chinese medical education from private instruction to a state-driven, institutionalized system. Through this institution, medical education began to have clearer standards and requirements, providing valuable experience for the construction of the later medical education system.

In addition to the Taiyi Shuo, local medical educational institutions were also established during the Han Dynasty, gradually cultivating professional medical personnel. Han Dynasty medical education emphasized the integration of theory and practice, particularly in the cultivation of clinical skills, where doctors were trained in hands-on experience and practical operation. During this period, medical education began to take on a more systematic curriculum, and the selection of doctors was no longer solely based on the master-apprentice relationship but also involved the evaluation of knowledge and skills.

3. The Flourishing of Medical Education and the Rise of Higher Education (Tang and Song Dynasties)

During the Tang and Song Dynasties, Chinese traditional medical education flourished. In the Tang Dynasty, medical education reached an unprecedented level of development. The establishment of the medical department in the Guozijian (National Academy) integrated medical education into the state education system, with a focus on both theory and practice. The Tang Dynasty's medical education system emphasized not only the study of classical texts but also the cultivation of clinical skills. For example, the integration of medical theory and clinical practice became the norm in Tang Dynasty medical education. Students were required to master knowledge from classical texts and also undergo hands-on training to improve their clinical skills.

Notable medical figures such as Sun Simiao and later doctors like an Daoquan made significant contributions to both medical theory and medical education during this period. Sun Simiao, revered as the "King of Medicine," had a profound influence through his Qianjin Yaofang (Prescriptions Worth a Thousand Gold), which played a crucial role in medical education. Sun Simiao emphasized the medical ethics of "the doctor is a parent to the people," and his teachings incorporated moral education alongside the transmission of

medical knowledge. His focus on moral conduct became a vital part of medical education in the Tang Dynasty.

The Tang Dynasty's Taiyi Shuo adopted a system of "four specialties and one garden," which focused on the specialization of medical education, including fields such as physician, acupuncture, massage, and exorcism, with a separate garden dedicated to pharmaceutical studies. This system of specialization marked the beginning of a more segmented and professional approach to medical education, extending beyond traditional therapeutic methods to include areas like acupuncture, massage, and pharmacology. This organized model of medical education had a lasting impact on the development of world medicine.

During the Song Dynasty, medical classics were compiled and disseminated, with works such as *Bencao Gangmu* (Compendium of Materia Medica) being published, significantly advancing the spread of medical knowledge. Additionally, government-run medical schools at local levels facilitated the growth of medical education, and common people began to have access to medical education through local institutions. This period saw medicine becoming more accessible to society at large, further integrating medical knowledge into the fabric of Chinese culture.

4. The Widespread and Standardized Medical Education (Ming and Qing Dynasties)

In the Ming and Qing Dynasties, medical education became further standardized and systematized. During the Ming Dynasty, the establishment of local medical schools made medical education more accessible, breaking the barriers of the imperial court and upper class, and making it available to the broader population. This development provided opportunities for more people to study medicine, further promoting the dissemination of medical knowledge.

Renowned doctors like Li Shizhen and Zhang Jingyue made significant contributions to medical education during the Ming Dynasty. Zhang Jingyue, known for his contributions to internal medicine, advocated for the combination of clinical practice and theoretical research, influencing the development of medical education that focused not only on academic knowledge but also practical experience.

The Qing Dynasty further strengthened the official nature of medical education, particularly through a rigorous system of medical exams. This system ensured that medical education followed unified standards, improved the selection and management of medical personnel, and maintained the quality of the medical workforce. In this period, Qing Dynasty medical education emphasized both theoretical study and practical skills, especially in clinical training. Medical classics were widely disseminated, and medical research was actively promoted, making the connection between medical education and clinical practice more integrated.

5. Influence and Conclusion

Traditional Chinese medical education had a profound influence on the development of medical systems in later periods. From famous doctors like Bian Que and Hua Tuo during the Warring States period to Sun Simiao and Li Shizhen in the Tang and Song Dynasties, and to Zhang Jingyue and other prominent physicians in the Ming and Qing Dynasties, the evolution of medical education in ancient China continuously pushed forward the development of medical theory and practice. Ancient Chinese medical education emphasized the transmission of classical texts, the cultivation of clinical skills, and medical ethics, all of which contributed to the establishment of modern medical education systems.

The core features of ancient Chinese medical education, such as the emphasis on classical transmission, practical teaching, and the master-apprentice method, have provided

invaluable insights for modern medical education. These features not only help us understand the formation and development of ancient Chinese medicine but also offer crucial lessons for today's medical education reforms and innovations.

6. Conclusion

Through a thorough review of the history of ancient Chinese medical education, we can clearly see that medical education evolved from oral transmission to an institutionalized, standardized system, promoting the inheritance of medical knowledge and the progress of medical technology. Traditional Chinese medical education not only laid the foundation for the medical systems of its time but also provided significant insights and experiences for modern medical education. In the context of the internationalization and modernization of global medical education, studying the historical experiences of traditional Chinese medical education continues to have vital practical significance, particularly in the areas of medical education management and clinical practice.

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