

# A Study on Zhang Xichun's Life and Contributions to Converging and Connecting Chinese and Western Medicine

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## Abstract:

To explore Zhang Xichun's life, contributions to converging and connecting Chinese and western medicine, references and literatures related to Zhang Xichun were collected by searching Pubmed, cnki, bing and then were studied. Zhang Xichun (1860-1933) was a representative figure of the "school of integration of traditional Chinese medicine (TCM) and Western medicine". In 1909, he finished the first three volumes of *Essays on Medicine Esteeming the Chinese and Respecting the Western* (his famous book) and was a famous physician in modern China. In 1912, he was hired as a major medical officer. His good medical ability was gradually well-known. In 1918, Zhang Xichun was recruited as the hospital chief of Lida Hospital, the first TCM hospital in Chinese history. He thought that TCM and Western medicine should study mutually. He said "Converging and connecting TCM and western medicine to form one." He tried to integrated Chinese and Western medicine on physiology, pathology, and pharmacology. He invented several new formulas combining TCM herbs and western medicine and a lot of good TCM formulas. He established Letter Communication School of TCM. Zhang Xichun tried to explain Western medicine with the theories of TCM and firstly started therapy of integrated Chinese and Western medicine. He made tremendous contributions to combining TCM and western medicine. His innovative and aggressive courage is worth of our tribute and learning.

**Keywords:** Zhang Xichun, Combination of Chinese and western medicine, 1860s, 1930s.

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## I. INTRODUCTION

Zhang Xichun (1860-1933) (Fig 1), whose another name was Zhang Shoufu, was a excellent Chinese medicine physician in modern China and was then a pioneer in integrated Chinese and western medicine. He was an advocate of the integration of traditional Chinese medicine (TCM) and Western medicine. He was a representative figure of the "school of integration of TCM and Western medicine" and he wrote *Essays on Medicine Esteeming the Chinese and Respecting the Western*<sup>[1]</sup>, which was famous at that time and had great influence on the later development of TCM and the combination of TCM and Western medicine.



Fig 1: Zhang Xichun (1860-1933)

## II. METHODS

References and literatures related to Zhang Xichun were collected by searching Pubmed, cnki, bing and then were studied.

## III. RESULTS

### 3.1 Zhang Xichun's Life

In February 29, 1860, Zhang Xichun was born in an old house of Zhang family in Zhang bianwu village, Yanshan, Zhili, China. He came from a scholar family. Zhang Tongyuan, his father, was a scholar who was fond of poetry, painting and calligraphy, teaching in the local private school. Zhang Tongyuan wished his son to get an official title through Imperial Examination and excel in poetry and calligraphy in the future. So, in 1864, when Zhang Xichun was four years old, he began to study Confucian classics for Imperial Examination of the Qing Dynasty. His father grasped some TCM skills. So, following his father's order, in 1874, he began to study classical TCM works on TCM such as *the Yellow Emperor's Inner Canon*, *Treatise on Febrile Diseases* et al and many different TCM theories and learn TCM from other TCM doctors in his town. In 1878, he began to diagnose and treat patients. In 1881, he attended but failed the Imperial Examination holding in Suntian in order to obtaining an official position for the first time. Following his father's advices, he went to Tianjin and entered school. Then, as a teacher, he had taught Confucian classic and medicine in an old-style home school. In 1885, he cured critical and severe illness which two famous TCM physicians in his home town couldn't cure and was highly praised by them. So his

good reputation spread in his home town. After that, many patients in Yanshan came to him for seeing a doctor. In 1893, he didn't enter the examination room, because he were treating a critical patient and delayed time, and failed the Autumn Imperial Examination again. In the year, Zhang began to study western medicine, he has accessed to Western medical books translated by Ding Fubao's and he also read a few missionary's translations such as Hobson's 1850s series on Western medicine and natural philosophy [2]. In his home town, he treated sick persons who came to him and taught Confucian classics and medicine for livelihood [2]. In 1897, he began to study algebra and geometry. In 1900, the Boxer Rebellion spread to Yanshan. Zhang support the uprising. He painted society flags for the organization. After the Boxer Rebellion failed, the Qing government caught the numbers of the Boxer Rebellion. So, he had to flee to Tianjin and live in Baosen Bookstore of Tianjin, which was founded by his uncle, for about a year, then Ren Village, his grandfather-in-law's home village in Yanshan, Hebei. In 1902, he was recruited as a private tutor in Ren Village [3-4].

In 1904, imperial examinations were abolished in China and schools were promoted. Depending on rich modern science knowledge, Zhang Xichun could teach both geometry and algebra. Therefore, among the teachers in Yanshan only he could teach the both subjects at the same time. He had been teaching, mainly as a teacher for livelihood, for twenty years. In spare time, he continued to study Chinese medicine and Western medicine and treated patients visiting him. Influenced by the trend of thoughts of integration of Chinese and western studying and fusion of Chinese and western studying from 1860s to 1930s [5], Zhang's ideas of combination TCM and western medicine sprouted and gradually got firm.



Fig 2: Zhang Xichun in army

In 1909, Zhang Xichun finished the first three volumes of *Essays on Medicine Esteeming the Chinese and Respecting the Western* (his famous book). He accumulated 100 experience TCM prescriptions. Also in the year he was a famous physician in modern China at the age of nearly 50. In 1912, at the age of 52, Zhang Xichun resigned from teaching and was hired as a major medical officer by Huang Huaxuan, Dezhou garrison commander of Zhili government (Fig 2). Then he went to Puyang, Guangping, Dezhou, etc., following the army. His good medical ability was gradually well-known. Many dignitaries at the time knew him. His books were spread. Many people even took time to copy them. One day in 1918, in Beijing, by chance, Su Mingyang, a member in the Society of New Theories of Heaven and Earth in Fengtian browned Zhang Xichun's unpublished copy of *Essays on Medicine Esteeming the Chinese and Respecting*

the Western and amazed to praise it as “an unprecedented books in medical circle”. Then Mr. Su took the copy to Mr. Yuan, his colleague who knew a bit of TCM, for browsing. The latter also marveled the manuscript. Having returned to Fengtian, the two men told their story to Gao Zhenduo, director of their society, and highly praised Zhang Xichun’s works. Mr. Gao also thought that it would be a pity if the manuscript hadn’t been published. Sequent they contacted Zhang Xichun and persuaded Zhang to register the copyright of his book in the Ministry of the Interior. Initially Zhang Xichun was not confident but finally was persuaded and agreed to apply copyright. So the society sent Zhang Zhongshan, Jiang Zhongshan succeeded in register the copyright of Zhang’s book in the Ministry of the Interior. Sequent, the copyright of Zhang’s book was proofread in Fengtian. The first volume of Zhang’s *Essays on Medicine Esteeming the Chinese and Respecting the Western* was published in Fengtian, sponsored by the Society of New Theories of Heaven and Earth. After being published, the book was sold out of stock soon and had to being republished in 1909 spring. After that, in 1918, the second volume of Zhang’s book was sequent published.

In 1918, Qi Ziyun, the head of Shenyang Tax Bureau and a TCM amateur, cured his friend’s wife’s abdominal mass with Lichong Decoction from Zhang’s book he bought. Excited Qi Ziyun told this story to Liu Haiquan, secretary of Zhang Zhuolin’s Grand Marshall’s House. The latter introduced the members of the Society of New Theories of Heaven and Earth to him. Then, Qi Ziyun, helped by the Society of New Theories of Heaven and Earth, funded by Liu Haiquan who was the governor of Liaoning Province, established Lida Hospital in Grand-east-gate, Fengtian (Shenyang now), the first TCM hospital in Chinese history. Zhang Xichun from Hankou was recruited as the hospital chief. When Lida Hospital just opened, very few people came to see a doctor, but as more and more patient were cured, its good reputation was spread. In 1919, cholera prevailed in Shenyang, Zhang made Jijiuhuisheng Pellet and Precious Pellet for Defending-lives & Plague-prevention (weisheng fangyi baodan). Then the two drugs were administered and many patients were cured. The war between the Zhili warlord and the Fengtian warlord happened in 1922. Zhang Xichun’s daily life and work was tremendously affected by this terrible war. So, in 1923, Zhang was forced to run away from Shenyang, backed to Cangxian, a county near his hometown and continued to conduct his medical practice. Zhang himself paid for publishing the third and forth volume of his famous book in 1924. The book was so popular that it had to be printed four times and Zhang’s fame greatly rose. Invited to Tianjin by Hu Zhenfu, a former DaoYin, Zhang Xichun was hired as a tutor of Hu Zhenfu’s school in 1926. Zhang took his family, went to Tianjin and temporarily lived in Hu’s house located in Qiuzhili, the British concession, Tianjin. He had taught students in Hu Zhenfu’s school for a year. In Tianjin he was also recruited by an army division as director of the Section of Military Doctor. So he practiced in the army while teaching. For the shifting of the army, he resigned from the army. In 1927, he conducted medical practice in a clinic. He founded the clinic near Feijia Hutong, Tianjin, called “Institute of Integration of TCM and Western Medicine”. Meanwhile, he conducted medical practice in the foreign concession area of Tianjin and treated many foreign patients who came to him. In 1928, the fifth volume of his famous book was published for the first time in Tianjin. In 1929, again and again, his famous book was republished and reprinted up to five times to meet his readers’ strong requirements. In 1931, His Institute of Integration of TCM and Western Medicine was moved to Guangdexili, the French concession, Tianjin. In the year, the sixth volume of his famous book was issued and reprinted<sup>[4, 6-7]</sup>. Until 1933, he had

published 33 academic papers on clinical cases, TCM in many medical journals <sup>[8]</sup>.

In 1932, again Zhang Xichun's clinic was moved to Daanli, No.21, the French concession Tianjin. In the year, cholera prevailed in Tianjin. He wrote an article titled *On the Treatment of Cholera*. Cholera also prevailed in Henan and Shandong, Precious Pellet for Defending-lives & Plague-prevention (weisheng fangyi baodan) was administered and many patients were cured.

Many readers all over China read Zhang's books and wrote to him, saying they want to learn TCM to him. Then, in the spring of 1933, he founded four-year TCM school called Letter Communication School of TCM in Tianjin. He practiced and taught in the school in the daytime and compiled textbooks for the school at night. The Letter Communication School of Chinese Medicine trained more than 500 talents on Chinese medicine. In September 17, 1933, Zhang Xichun passed away due to heart attack in his clinic, located in Qiuzhili, No.24, the French concession, Tianjin, at 73 years old. Then he was buried in Yanshan <sup>[2]</sup>.

Zhang Xichun's wife surnamed Wang who had studied in Japan for years. Zhang Xichun had three sons and one daughter. Zhang Yinchao, his eldest son, once served as medical officer of the Defense Command Headquarter of the Capital and its Environs. Zhang Mingxun, his second grandson, practiced in his home town <sup>[4]</sup>.

## 3.2 Zhang Xichun's Contributions

### 3.2.1 A famous physican in China of 1920s

In 1920s, Zhang Xichun, together with Yang Ruhou from Jiangsu, Liu Yuchu from Guangdong and Lu Jinsheng from Jiangxi was well-known as one of "the four master physicians". Furthermore, Zhang Xichun, Zhang Shanlei from Jiading and Zhang Shengfu from Cixi formed "three famous physicians surnamed Zhang" <sup>[9]</sup>.

### 3.2.2 Contribution to converging and connecting Chinese and western medicine

#### 3.2.2.1 Innovative theories and practice in converging and connecting Chinese and western medicine

In Zhang Xichun's, his attitude towards western medicine was critical in many cases, but Zhang used to viewing western medicine from a TCM standpoint and his aiming was to make Western medicine comprehensible with a TCM theory of knowledge <sup>[3]</sup>.

He explained and assessed Western medicine from the standpoint of TCM. He thought that TCM and Western medicine should be connected and they should study mutually, that TCM should be center and basis and Western medicine should be regarded as utilization. "Learn TCM but not rigidly adhere to outdated TCM theory, respect and consult western medicine but never betray TCM.", "combine TCM and

western medicine so as to form one medicine.” He also added “The TCM theories undoubtedly contain the theories of western medicine.”<sup>[10]</sup>

In physiology, Zhang combined “the heart governs the mind” in the TCM theories and “the functions of our brains lie in mental activities, awareness and pondering” in the theories of western medicine and asserted “Human’s mind exists in both brains and hearts.” “The substance of our mind exists in our brains and the functions of our mind exist in our hearts.”<sup>[11]</sup>

In pathology, for example, in term of tuberculosis in Western medicine, What Zhang Xichun referred to was not the “tuberculosis worms” in popular understanding of depletion. It was not the theories of Five Phrases correspondence either. Instead, he noted that how depletion was a result of yin deficiency of one’s yinyang balances. This yin depletion originates either from in lungs or kidneys. Kidneys are also accountable for one’s reproductive function and one’s sexual function according to the theory of Chinese medicine. He said “There are some cases which the Westerns contribute to ‘excessive sexual desire’”. In Chinese medicine, excessive sexual behaviors endanger one’s kidney, which might lead to yin-depletion diseases, which is a match with the Western association of tuberculosis with pathologically heightened sex desire<sup>[12]</sup>.

Zhang recorded the tuberculosis, which Westerns thought the characteristic of the disease, using the word “dubikali” for tubercle. Then he noted the Japanese in fact expanded Western’s understanding of the disease because the Japanese called the disease Fei jiehe and considered it to be the results of infection by a bacterium. Maybe because in term of bacterial etiology, Zhang only read Japanese medical books in which tuberculosis was discussed, he concluded that Japanese discovered tuberculosis bacterium. Zhang didn’t dismiss bacterium theory, but he argued that bacterium wasn’t a sufficient causes of the consumption he mentioned<sup>[13]</sup>.

In pharmacology, Zhang Xichun evaluated western drugs in Chinese pharmaceutical terms. For instance, he accessed menthol had cooling nature and pungent taste. He accessed aspirin had cooling nature and slight sour taste.

Zhang considered that western medicine excelled in eliminating patients’ symptoms and Chinese medicine was good at removing the pathogeny of diseases. The combination of Chinese medicine and western medicine could eliminate patients’ symptoms and pathogeny at the same time. He didn’t only follow any one mode of TCM thoughts but drew from the widest range of thoughts, containing Western medicine<sup>[16]</sup>. The advantages of western medicine were creatively used by him to offset the weaknesses of TCM herbs and innovatively invented several new formulas combining TCM herbs and western medicine. The combined new formulas were quite effective. For example, gypsum plus aspirin formula was created by him to treat exogenous wind-cold plus interior heat. He explained “As far as its nature is concerned, gypsum is matchable with aspirin. They are wonderful combination. The heat-erasing ability of widely used gypsum is strong; however, to gypsum, the ability of removing external symptom is weak. While aspirin, with cold in nature and acidic in taste, excel in reaching external part, that is, the combination of



them can cause the internal heat to be dispersed through the external part. The combination of aspirin and gypsum has perfect synergic effect.” He added “The effect is great for combined formula, made of aspirin and gypsum, to relieve severe swelling and severe pain in one’s joints” Moreover, he recorded an effective regime for tuberculosis including preliminary treatment with herbs, and then aspirin, finally pill made from creosote menthol <sup>[17]</sup>. In addition, combination of yam porridge and pepsin was used by him to treat indigestion. He used cinchona combining minor bupleurum decoction to treat malaria <sup>[2, 18]</sup>.

Another accomplishment he obtained is that he created a lot of good TCM formulas during his long substantial practice process. In his famous book, 189 Chinese medicine prescriptions were recorded. 167 of them were made up by him and were administered to treat many diseases in internal medicine, gynecology and obstetrics, and surgery. Their characters are concise TCM ingredients, specific, to be applied easily. 90% of them were made up of less than 8 TCM ingredients, most 5-6, some even 1-2. However, the principal TCM herb in a formula was usually administered in large-dose. Many of his prescriptions are effective and are currently be popularly used in today’s China, such as Liyin Formula, Sedate the Liver and Extinguish Wind Decoction, Huoluo-Xiaoling Pellets, Fall-Upbearing Decoction, Follow the Dragon Decoction, Stabilization of Chong Meridian Decoction, Yuye Decoction, et al<sup>[19]</sup>.

#### 3.2.2.2 A pioneer in modern TCM education

Zhang Xichun was, in fact, one of the earliest TCM teachers in modern China. He established Letter Communication School of TCM. The students came from all over China except Tibet and Xinjiang. Many of them were quite literate, had some medical knowledge, and ever had become local good physician. Zhang made up course plan. The courses comprised more than 10 courses, such as *anatomy*, *pathology*, *pharmacy*, *prescription*, *Treatise on Febrile Diseases*. *An Integrated Form of Medicine* et al. *Prescription*, *pharmacy* and *Treatise on Febrile Diseases* were actually picked up from his famous book. He wrote *An Integrated Form of Medicine* and *Treatise on Febrile Diseases* for the school. The latter two textbooks were later incorporated into his famous book. Up to date, these listed courses were, as before, the core subjects to the universities of TCM in current China. Teaching in the school emphasized the significance of “Learn but not be stuck to ancient theory of TCM”, converging and connecting Chinese and western medicine, and medical practice which was especially emphasized. His famous book had been served as a generic textbook to many TCM schools from 1930s to 1950s. He taught students by correspondence. Different from other Chinese medical school, his aim of founding the school was not for earning money but for training talents on Chinese medicine. He only accepted students’ fees of textbooks <sup>[20]</sup>.

## IV. DISCUSSION

The second half of the 19th century, both Western studying and western medicine spread quickly in backward China. At the time, TCM lost its preferred position as the only one “medicine” (yixue). TCM were named as “Chinese medicine” (zhongyi), a definition compared with “Western medicine” (xiyi) <sup>[21]</sup>.

On one hand, at the time TCM conflicted with western medicine. They often rejected mutually. TCM physicians didn't appreciate western medicine and dismissed it. In their mind, Chinese and westerners' physiques were very different. Westerners from abroad were very strong. To treat westerners' diseases, erasing their heat with intense bloodletting therapy should be considered. Most western medicine was composed of chemical substances and mineral while most traditional Chinese medicines were herbs. Chinese medicines were administered in large-amount while western medicines should be administered in small-amount. Western drugs weren't suitable to be administered for Chinese people. Furthermore, they claimed that more than half of western medicines actually originated from China or made from Chinese herbs<sup>[22]</sup>.

On the other hand, some western medicine physicians said "TCM practice just relies on occasional coincidence and isn't based on science and evidences." They called Chinese medicine "savages' medicine". In 1929, the Nanjing government at the time even passed an aggressive bill named "A Bill for the Abolishment of Old Medicine so as to Eliminate Public Health Barriers Thoroughly" so as to abolish TCM completely<sup>[23]</sup>.

Soon, however, there were a gang of board-educated physicians who knew both TCM and western medicine and did not mourn the awkward situation, but tried to combine some of the advantages of Western medicine into the TCM system. These pioneers are now usually referred to as "school of integration of TCM and Western medicine". Main four representatives of them are Tang Zonghai (1851-1908), Wang Qingren (1768-1831), Zhang Shouyi (1873-1934) and Zhang Xichun (1860-1933)<sup>[21]</sup>.

Influenced by the trend of thoughts of integration of Chinese and western studying and fusion of Chinese and western studying from 1860s to 1930s, Zhang Xichun, with open-up mind and some knowledge on modern science and Western medicine, was dissatisfied with the confrontation and conflict between TCM and Western medicine and the falling of TCM and declared "TCM and western medicine, either of them has its advantages and disadvantages, should study mutually and combine together into one medicine."

Zhang Xichun's TCM and Western medicine combination thoughts were creative although from the perspective of today's eyes, they were in a primary phase and seemed a little superficial, ever farfetched. The reasons for that were probably because Zhang Xichun was a TCM physician who was maybe more familiar with TCM than western medicine and he learned western medicine by himself, therefore his knowledge about western medicine wasn't broad. He undoubtedly pondered medicine and practiced with the TCM theories<sup>[24]</sup>. He explained physiology, pathology, pharmacology, even some classical theories of TCM by combining the theories of TCM and western medicine. Especially, he explained the pharmacology of western drugs with the TCM theories, He used the knowledge about Western treatments to formulate improved Chinese herbal formula, i.e. he combined TCM herbs with western medicine for some diseases and obtained quite good efficacy. By these ways, Zhang Xichun demonstrated the strength and adaptability of TCM. His writings were popular at the time and are still popular today. His thoughts enlightened many subsequent physicians to further develop the combination of Chinese and Western medicine<sup>[21]</sup>.



Zhang Xichun undoubtedly made great contributions to converging and connecting TCM and western medicine, however, it must be noted that Zhang Xichun, as an initial integrators of Chinese and Western medicine and an early visionary of combined medicine, wasn't a supporter of the higher superiority of Western medicine, but reflect the conventional ideal of the famous physician like him at that time. His broad knowledge in art, philosophy, natural science, Western medicine and TCM allowed him to break fresh ground by, for example, integrating aspirin his traditional formulas. Although his objective was to integrate some parts of the useful technique (yong) of Western medicine into the conventional Chinese mother body (ti) of TCM, his medical ideal on integration of TCM and western medicine remained TCM at the core and Western medicine for use, or "Chinese at heart but Western where appropriate" –just as the title of Zhang Xichun's works announced.

## V. CONCLUSION

Zhang Xichun was almost the only one TCM doctor who showed Western medicine knowledge in Chinese medicine works at his time. He tried to explain Western medicine with the theories of TCM. Moreover, he was the first Chinese medicine doctor who started therapy of integrated Chinese and Western medicine. His contributions to combining TCM and western medicine were great. He was a forerunner in converging and connecting TCM and western medicine from 1860s to 1930s. Although his medical ideal on integration of TCM and western medicine remained TCM at the core while Western medicine for use, his innovative and aggressive courage is worth of our tribute and learning.

## DECLARATION OF CONFLICTING INTERESTS

All contributing authors declare they have no conflicts of interest.

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