

# **Analysis of the cultivation of medical students by calligraphy education—taking traditional Chinese medicine acupuncture and traditional Chinese medicine orthopedics as example**

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## **Abstract**

In recent years, medical higher education institutions have actively followed the 《National Guidelines for Public Art Courses in Ordinary Colleges and Universities》 to offer art courses, aiming to implement aesthetic education. Calligraphy class is an important component of art courses. Calligraphy education is of great significance in improving the humanistic literacy of medical students, inspiring their innovation ability, enhancing their philosophical thinking, and many other aspects. Hippocrates once said that medicine is both a science and an art. Calligraphy is a shining pearl in the field of art. Conducting calligraphy education in medical higher education institutions not only teaches medical students how to write, but also enhances their understanding of medical philosophy and methodology. As a "stone from another mountain", calligraphy can guide medical students' clinical practice and continuously improve clinical diagnosis and treatment effectiveness.

**Keywords:**Calligraphy education; Medical students; culture

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<sup>1</sup> **Funding Projects:***Henan Province Traditional Chinese Medicine Inheritance and Innovation Talent Project (Zhongjing Project): Top TCM Talent Training Program (Document No. Yu Wei Zhong Yi Han [2021] 15); Henan Province Special Project for Scientific Research in Traditional Chinese Medicine (Project No. 2023ZY2204); Seventh Batch of National Program for the Inheritance of Academic Experience of Veteran TCM Experts (Document No. Guo Zhong Yi Yao Ren Jiao Han [2022] 76).*

## **Introduction**

Calligraphy is a treasure of Chinese culture, passed down for thousands of years and renowned for its unique charm. With the introduction and popularization of public art courses in universities across the country, calligraphy education has gradually entered the classrooms of medical colleges. The purpose of offering calligraphy courses is to enhance medical students' aesthetic literacy, cultivate their innovative spirit and practical abilities, and help shape well-rounded personalities. Therefore, in the calligraphy education of medical students, we should “diligently practice and wisely reflect”, and achieve the “integration of practice and insight”, so that the humanistic and philosophical charm of calligraphy can inspire their wisdom and promote their all-round development.

### **1. Calligraphy Education Can Enhance the Humanistic Literacy of Medical Students**

In traditional medical training, there is a well-known saying: “First, good handwriting; second, fluency in dialects; third, skillful pulse-taking; fourth, dressing appropriately.” Placing good handwriting first indicates that renowned physicians have always attached great importance to the neatness and clarity of prescription writing. A prescription represents the physician's professional image; it reflects the doctor's cultural foundation and intellectual depth. Many patients even judge a doctor's medical skills based on the quality of their handwriting. Good handwriting often reveals the inner state of the doctor. In higher medical education, the calligraphy training of medical students also follows the principle: “To study medicine, first practice writing, then read books.” Achieving mastery in practice and progressing to insight, where medicine and calligraphy are understood as interconnected, is considered a high level of learning.

In our calligraphy classes, we often discuss many renowned figures in medical history who held dual identities as both physicians and calligraphers, such as Chen Lianfang, Cheng Menxue, Gu Xiaoyan, Han Banchi, Yin Shoutian, and Lai Yuanfu. Among them, the most famous is Fu Qingzhu, a renowned gynecologist of the early Qing

Dynasty and the author of Fu Qingzhu's Gynecology. He was also an accomplished calligrapher, advocating a style that embraced "simplicity" and "imperfection," with works in regular, cursive, clerical, and seal scripts that were both skillful and aesthetically pleasing. In modern times, Academician Cheng Xinnong of the Chinese Academy of Sciences authored *An Outline of Chinese Acupuncture and Selected Seal Engravings of Cheng Xinnong*. He not only earned a stellar reputation in the field of medicine but also achieved excellence in calligraphy; his small regular script and seal engravings are celebrated both domestically and internationally.

Today, when doctors excel in calligraphy and even become recognized calligraphers, such achievements are described as "cross-boundary." However, being able to achieve distinction in both fields and integrate them seamlessly is considered "transcendence." The key difference lies in whether the two disciplines are truly merged and harmonized. For this reason, the inclusion of calligraphy education in medical colleges allows students to benefit not only from their medical knowledge but also from the artistic enrichment that calligraphy provides. This approach cultivates cultural literacy and applied cognition, enhancing humanistic qualities and supporting the development of narrative medicine. Calligraphy and medical practice share a profound philosophical connection; they complement and enhance each other in a way that is mutually beneficial.

## **2. Calligraphy Education Can Inspire Medical Students' Capacity for Discovery**

Taking calligraphy courses can help medical students enhance their ability for self-innovation. The intersection and integration of disciplines is an inevitable trend for future development, as such interdisciplinary connections promote the merging of knowledge and foster innovation. Calligraphy education can enlighten medical students' wisdom; the interaction and collision between calligraphy and medicine can spark new ideas, break through the limitations of established theoretical frameworks and methodologies, and allow students to explore and discover more innovative and adaptable solutions from multiple perspectives and levels. After medical students grow into practicing physicians, many continue to practice calligraphy in their spare

time. Through this continuous engagement, they often capture fleeting sparks of insight, document them promptly, and, over time, develop new perspectives and unique understandings within their fields.

In the article *Calligraphy and Orthopedic Manipulation*, medical scholar Zhang Yu pointed out through the practice of calligraphy that there are similar patterns in learning and mastering both calligraphy and orthopedic techniques — from standardized study to the integration of various schools of thought — which leads to the formation of one’s unique style in both calligraphy and manipulation. He also emphasized that the ultimate state in both disciplines is when the calligrapher and the practitioner achieve mastery, becoming proficient and intuitive in their work. In the article *Three Notes on Medicine*, medical scholar Tang Songhua noted that both outstanding calligraphers and exceptional orthopedic practitioners are masters of force control; neither rely on brute strength. A skilled calligrapher channels power to the tip of the brush, while a skilled orthopedist focuses strength at the fingertips. Both disciplines require thorough planning before execution: in calligraphy, drafting a layout; in orthopedics, formulating a reduction plan. The similarity lies in the focused, seamless execution when performing the operation or writing.

In the article *The Eight Principles of the “Yong” Character and the Eight Methods of Orthopedics*, orthopedic scholar He Yingkai found that calligraphy and orthopedics are both rooted in mastering fundamental techniques — the “Eight Principles” in calligraphy and the “Eight Methods” in orthopedic manipulation. These fundamentals are then applied to writing different Chinese characters or performing fracture reductions, revealing patterns that connect stroke techniques with orthopedic procedures. The elegant coordination of the “Eight Principles” and the precise combination of the “Eight Methods” share the same underlying logic. In the article *On Calligraphy and Acupuncture Techniques*, medical scholar Zhang Yu observed that standardized calligraphy practice and standardized acupuncture techniques are foundational for learning in both fields. This foundation helps beginners in calligraphy and acupuncture quickly grasp key operational skills. Moreover, the practitioner’s mindset plays a critical role in determining success in both calligraphy

creation and acupuncture procedures. A disciplined, meticulous, and pragmatic attitude fosters better results. During both calligraphy creation and acupuncture, practitioners must maintain a unified focus, inner balance, and harmony of intent with brush or needle. Both processes resemble a form of Qigong practice, which enhances the artistic level of calligraphers and the technical proficiency of acupuncture physicians.

### **3. Calligraphy Education Can Enhance the Philosophical Thinking of Medical Students**

Chinese calligraphy, with its profound cultural heritage spanning thousands of years, is rich in philosophical views and thoughts. Calligraphy education can cultivate medical students' philosophical thinking, contributing to the refinement of their medical philosophy and methodology. When medical students integrate the philosophy of calligraphy with the practice of medicine, the collision of these two disciplines sparks wisdom, offering unique perspectives and insights for clinical reasoning and decision-making. Simply put, through practicing calligraphy, they can comprehend many principles and methods applicable to medicine. The enhancement of philosophical thinking through calligraphy education relies first on practice (務), where students continuously train and refine themselves, and second on insight (悟), where both sudden and gradual enlightenment are achieved through ongoing reflection built on consistent practice.

For example, in the ideas of the calligrapher Liu Gongquan, there is a deep, practical philosophy of governance, encapsulated in his belief in “admonishing through the brush.” As he said, “The use of the brush stems from the heart; when the heart is upright, the brushwork is upright.” In the field of traditional Chinese orthopedics, some scholars have drawn inspiration from this philosophy, realizing that “to correct bones, one must first correct one’s own bones.” This speaks to the professional ethics of orthopedic physicians, who practice with compassion, empathy, and kindness. They are motivated by love for medicine rather than fame or profit, demonstrating

integrity and humility — a mindset best described as having “ghostly skill and a Buddha’s heart.”

Similarly, in calligraphy, there are two common stroke techniques: smooth strokes (順鋒) and reverse strokes (逆鋒). Smooth strokes reflect an attitude of life that embraces the world with gentleness and humility, embodying a philosophy of softness and selflessness. Reverse strokes, on the other hand, reflect an attitude of striving to transform the world, representing strength and assertiveness. Orthopedic manipulation, too, balances firmness and gentleness. These treatments follow rhythmic variations and often discourage brute force, instead emphasizing steadiness, precision, and subtlety. As noted in *The Golden Mirror of Medicine*, “Manipulation is indeed the foremost duty in bone-setting... The best technique is one that causes the patient no pain,” showing that bone treatments achieve harmony of strength and gentleness in a single moment. Similarly, Wang Yaogang discovered through calligraphy practice that “those skilled in pole dancing have their spirit in the pole’s tip; those adept with blades channel force to the blade’s edge; those proficient in calligraphy direct power to the brush tip; and those skilled in orthopedics apply strength through their fingertips.” Likewise, Zhang Rongsheng found that both calligraphy and bone-setting avoid clumsy, rigid force, revealing that wisdom, rather than raw strength, underlies mastery in both fields.

Another example can be found in Zhang Huai-guan’s *Treatise on Calligraphy*, which states, “The way of calligraphy is profound and connected to the Great Dao.” The “Dao” refers to transformation, and calligraphy, through its simplest lines, resonates with the spirit of the universe. Similarly, in clinical practice, physicians often pursue simplicity in their approaches. This is especially true in orthopedics, where treatments are known for being “simple, convenient, effective, and inexpensive.” Many of these methods are even recommended by health authorities for widespread use in grassroots medical institutions. Inspired by the simplicity of calligraphy, numerous medical students have, over time, developed their own unique and effective “safe and simplified fracture treatments” through years of clinical experience.

#### **4. Outlook**

As early as 2020, the General Office of the CPC Central Committee and the General Office of the State Council issued the Opinions on Comprehensively Strengthening and Improving Aesthetic Education in Schools in the New Era, identifying aesthetic education as a breakthrough point for educational reform. Calligraphy education serves as an effective avenue to enhance medical students' aesthetic sensibility and humanistic literacy. As a comprehensive educational course, calligraphy should not be limited to merely transmitting artistic knowledge. Beyond appreciating the beauty of Chinese characters and traditional culture, it should help medical students, through practice (務) and insight (悟), to perceive the symbolic and philosophical beauty embedded in the written form.

When integrated into medical college curricula, calligraphy offers students an expressive art form where works become reflections of personal emotion and aesthetic sensibility. Like a refreshing stream, calligraphy provides mental clarity and peace, nurturing patience, focus, and artistic appreciation, while simultaneously raising their cultural literacy and artistic refinement. The beauty of calligraphy is not only artistic but also philosophical. For centuries, people have engaged in practice and insight through calligraphy, and education continues to embody this balance. By incorporating calligraphy education into medical programs, its aesthetic function can foster the all-around development of students, enhancing their clinical philosophical thinking and medical methodology. Looking forward, as calligraphy education becomes increasingly embedded in medical education, the integration of diligent practice and reflective insight will undoubtedly contribute to the cultivation of outstanding medical professionals.

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