

# The Status and Thinking of College Students of Science and Engineering in Traditional Chinese Medicine Cultural Literacy

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**Abstract:** Through questionnaires and other forms to investigate the understanding of science and engineering students on Chinese medicine culture, and through the combination of traditional media and modern new media to enhance their own Chinese medicine cultural literacy and improve the influence of Chinese medicine.

**Keywords:** Science and engineering students, Traditional Chinese medicine, Promotion path.

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## 1. Introduction

Traditional Chinese medicine culture is an important part of the traditional Chinese culture. In March 2022, the General Office of the State Council issued the Fourteenth Five Year Plan for the Development of Traditional Chinese Medicine, which is the first time since the founding of New China that the State Council has made a plan for the development of traditional Chinese medicine in the next five years. The data published in the Statistical Bulletin of China's Health Development in 2021 shows that the development situation of traditional Chinese medicine in China is grim. Traditional Chinese medicine has been developed by the Chinese nation for thousands of years. It has a long cultural history and is worth inheriting and developing for every Chinese descendant. In the fight against COVID-19, traditional Chinese medicine has played an important role. Based on this, a survey shows that 95.30% of the respondents believe that traditional Chinese medicine has played a role in the prevention and treatment of COVID-19. With the continuous development of electronic products, studies have shown that 19.4% of college students have neck discomfort at least once a week. Cervical spondylosis has become one of the major diseases of college students, and the treatment of cervical spondylosis is mainly traditional Chinese medicine. In this era and realistic background, it is of epoch-making significance to strengthen college students' understanding of Chinese medicine culture and promote the development of Chinese medicine for the inheritance and development of Chinese medicine culture. At present, there is little research on how to strengthen science and engineering college students' understanding of traditional Chinese medicine culture. The purpose of this questionnaire survey on science and engineering college students' understanding of traditional Chinese medicine culture is to provide reference suggestions on how to strengthen the understanding of science and engineering students' traditional Chinese medicine culture.

## 2. Research Methods

### 2.1. Questionnaire design

In order to understand the situation of science and engineering college students' cultural literacy of traditional

Chinese medicine, and provide more professional opinions and suggestions for the situation of science and engineering college students' cultural literacy, this survey mainly takes science and engineering students in Sichuan and Shandong as the subjects to conduct a questionnaire survey, and radiates to the surrounding areas. There are 16 questions in this questionnaire, including 2 basic information questions and 14 content questions (4 single choices and 10 multiple choices). By publishing the questionnaire online and filling in the questionnaire anonymously, the users are protected, thus enhancing the fairness and objectivity of the results.

### 2.2. Data processing

In this survey, 746 questionnaires were sent out and 746 were collected, and the number of valid questionnaires was 746. We import the effective survey data into Excel software, count the proportion of answers to each question separately, and make statistical charts to intuitively analyze the overall situation.

### 2.3. Statistical study

In order to count the differences between boys and girls in the overall situation and some issues, we use gender as a screening item to count the data again, and then draw specific conclusions.

## 3. Results of Study Data

### 3.1. Basic information

The total number of participants in the survey was 746, including 395 male respondents, accounting for 52.95% of the total number of respondents, and 351 female respondents, accounting for 47.05% of the total number of respondents. As the survey was conducted during the graduation season in June and July, the newly promoted freshmen have not yet entered the school, and some senior students are busy with postgraduate entrance examination and work practice, so the proportion of sophomores and juniors participating in the survey is relatively high.

### **3.2. College students of science and engineering agree with traditional Chinese medicine, but they do not have a deep understanding of it.**

Through this survey, 21.45% of the respondents said they preferred to treat diseases by traditional Chinese medicine with high safety and few side effects, 24.13% of the respondents said they preferred to treat diseases by Western medicine with quick curative effect, 54.42% of the interviewees said they preferred to treat diseases with combined use of traditional Chinese medicine and Western medicine, and 24.13% of them said that they preferred traditional Chinese medicine. It can be seen that more than 70% of the respondents hold a positive attitude towards the treatment of traditional Chinese medicine. More than 96% of the respondents said that they had learned about Chinese medicine culture through the media, doctors'propaganda, parents and friends. However, only 18.23% of the interviewees said that they had a good understanding of traditional Chinese medicine culture, which indicated that most of the interviewees did not have a deep understanding of traditional Chinese medicine culture, and their existing knowledge may only come from the relevant reports of the network media and oral transmission in life, which shows that science and engineering students do not have a deep understanding of Chinese medicine. It is worth mentioning that when the author makes a cross-analysis of basic and specific problems, it is found that the proportion of girls'understanding of traditional Chinese medicine treatment methods is 5% -10% higher than that of boys.

### **3.3. College students of science and engineering have a positive intention to learn Chinese medicine and are more inclined to understand Chinese medicine culture by combining traditional methods with modern new media.**

83.11% of the respondents are willing to understand or continue to learn the culture of traditional Chinese medicine, which can show that the current college students have a positive intention to learn traditional Chinese medicine, reflecting the reliability and positive impact of the current field of traditional Chinese medicine in China. 64.61% of the respondents preferred to learn Chinese medicine culture by watching online videos, followed by Wechat Public Number, accounting for 46.51%. 45.58% of the respondents chose to use professional books to learn Chinese medicine culture. 85.66% of the respondents chose to use traditional Chinese medicine technology to demonstrate or publish easy-to-understand books and video works on traditional Chinese medicine, which can effectively improve the influence of traditional Chinese medicine among the public. From the above data results, we can know that the combination of traditional media and new media to promote Chinese medicine culture is the learning way that science and engineering students prefer and think can achieve the best results.

## **4. Cause Analysis**

### **4.1. College students lack systematic knowledge of traditional Chinese medicine**

From the survey data, we can see that college students do not have a clear understanding of the essence of TCM treatment, which is also a manifestation of the lack of systematic and accurate knowledge of TCM. Since the modern contact with Western medicine treatment, China has continuously studied the treatment methods of Western medicine, and now has formed a modern scientific treatment system in China. Most people, including contemporary college students, regard Western medicine as their first choice for quick treatment. In our survey data, when asked what kind of treatment to choose, 24.13% of the students will choose Western medicine treatment with faster and more convenient treatment, only 21.45% of the students choose the treatment of traditional Chinese medicine, and the remaining students choose combined use of traditional Chinese medicine and Western medicine. It also reflects that college students are more willing to treat with Western medicine. Because of the rich theoretical system and obscure professional knowledge of traditional Chinese medicine, college students are more lack of knowledge of traditional Chinese medicine.

### **4.2. Gender differences will lead to differences in understanding of Chinese medicine culture**

In recent years, with the accelerated pace of social development, women's study and work pressure is too great. Staying up late and irregular work and rest have developed into menstruation-related problems, which have seriously troubled the majority of female patients. Traditional Chinese medicine has a unique clinical effect and a long history on menstrual problems. Compared with Western medicine treatment, traditional Chinese medicine therapy shows the advantages of traditional Chinese medicine, through Chinese medicine moxibustion and other treatment methods, can achieve a thorough effect, treat both symptoms and root causes, side effects are small, so women are easier to understand more than men in this respect, and then expand to other aspects of traditional Chinese medicine.

### **4.3. Different professional cognition leads to deviation in understanding of traditional Chinese medicine**

For science and engineering students, most of their majors are theoretical calculation and practice, while traditional Chinese medicine belongs to the combination of liberal arts and science, and its content is rich and difficult to understand, and because of the great differences between the basic knowledge and theoretical system of traditional Chinese medicine and other professional knowledge, there are some limitations in the understanding of traditional Chinese medicine for science and engineering students. The understanding and learning of traditional Chinese medicine is easily limited to the perspective of professional learning, and then there are deviations.

### **4.4. The effect of TCM propaganda activities in colleges and universities is not good**

Because the knowledge system of traditional Chinese medicine is complicated and the professional content is

obscure and difficult to understand, it has the advantage of propaganda for colleges and universities. However, colleges and universities can not make the dull and obscure knowledge vivid and visualized in propaganda, which leads to the low enthusiasm of students. The recurrence of the COVID-19 epidemic has also shifted the interesting activities offline to online, and students' sense of participation is not strong; The propaganda work in colleges and universities is often carried out in the form of popular science, and the content is relatively single, lacking novelty, and the enthusiasm of students is not strong. Generally speaking, if colleges and universities want to achieve results in the propaganda of traditional Chinese medicine, and then promote the inheritance and development of traditional Chinese medicine, they must work hard on the propaganda methods and contents.

#### **4.5. The general attention of the society to traditional Chinese medicine is not high**

Nowadays, many health care products with the name of traditional Chinese medicine are loved by everyone, which strengthens people's understanding of traditional Chinese medicine to a certain extent, but its own role in curing diseases and saving people is neglected. Western medicine has its complete and mature medical system, but Chinese medicine is always fighting alone, from the "Statistical Bulletin of the Development of Health in China", we can know that few people choose traditional Chinese medicine therapy, and the audience of Chinese medicine in medical treatment is small. Moreover, there are only 23 TCM universities in China, which explains why the proportion of TCM health personnel in China is less than 9%.

### **5. Targeted Countermeasures**

#### **5.1. General Discussion Viewpoint + Specific Subdivision**

College students are the backbone of the Chinese nation. Strengthening college students' understanding of traditional Chinese medicine culture is not only conducive to their own health, but also plays a very positive role in promoting the inheritance and development of traditional Chinese medicine culture. By comparing and analyzing the questionnaire data, it is found that a larger part of science and engineering students are willing to learn about traditional Chinese medicine culture, and the ways they expect are watching online videos, learning through Wechat public numbers and professional books. Among them, they are more interested in and feel that the more effective way to improve the influence of traditional Chinese medicine is the demonstration of traditional Chinese medicine technology, as well as easy-to-understand books, films and television works on traditional Chinese medicine. Based on the above research results, the author puts forward the following measures to strengthen the cultural literacy of traditional Chinese medicine for science and engineering students:

#### **5.2. Vigorously promote online videos to arouse interest/popularize science through online short videos**

With the development of science and technology, people rely more and more on intelligent devices, and short video has developed rapidly with its advantages of strong interest, fast dissemination of information, strong pertinence, intelligent

delivery of data, time length and so on, and has become popular among college students. It is a very desirable and positive behavior to use short video to publicize knowledge of traditional Chinese medicine.

After searching for the keyword "Chinese medicine" in a video APP, we can find many certified Chinese medicine experts and professors, but there are inevitably some creative users who have not been certified. The video content they upload is difficult to distinguish the true from the false by college students who do not know much about Chinese medicine culture. If there is a mistake, it will inevitably cause a bad impact. In this regard, short video media need to strengthen the audit and management of video content, and viewers should first select popular science videos with official certification when watching online videos to understand the culture of traditional Chinese medicine.

Most of the highly praised short videos of popular science of traditional Chinese medicine are introduced directly by experts, which may make many interested college students feel bored. With the continuous enhancement and integration of science and technology and new media technology, if the image of traditional Chinese medicine can be introduced after Q version, or some obscure content can be combined with some popular words, or some traditional techniques such as acupuncture and cupping can be displayed by video, it will certainly arouse the interest of viewers.

#### **5.3. Make full use of the public number science popularization platform to expand publicity**

The public account has the characteristics of high timeliness, accurate and timely content push, and interactive communication with users, which can not only meet the needs of users to obtain information in fragmented time, but also invisibly popularize popular science knowledge to users through attractive push content, and win the praise of users. In addition, in many new media on the Internet, the form of integration of public numbers with pictures and texts can also increase the interest and depth of popular science of traditional Chinese medicine culture. In order to better promote the culture of traditional Chinese medicine, it is necessary to select some public accounts or articles with relevant content, lively and interesting, easy to understand to recommend to you, and actively communicate with the authors of these public accounts, affirm their works, and put forward some feasible suggestions, so as to push more professional, more in-depth, interesting and readable content to the vast number of users.

#### **5.4. Improve the publicity through the holding of relevant activities on campus**

Through contacting medical colleges or relevant Chinese medicine institutions in various regions, the school forms an inter-school Chinese medicine culture mission for training, and after training, it carries out lectures on Chinese medicine in universities and even affiliated primary and secondary schools, a series of activities on popular science of Chinese medicine culture, and a series of activities on Chinese medicine culture entering universities and communities. Improve the ability of students and residents to identify the good and bad propaganda of traditional Chinese medicine, arouse students' interest in traditional Chinese medicine culture, increase their understanding of traditional Chinese medicine culture, and establish a good mass base.

## 5.5. Professional books that are easy to understand

Reading published professional books can avoid doubts about the authenticity of content like short videos, while easy to understand professional books can play a huge role in improving college students' TCM cultural literacy. After searching for the keyword "Chinese medicine" in the library, it was found that most of them were periodicals, but their contents were relatively obscure and boring for science and engineering students, and their professionalism was strong, so it was difficult to achieve ideal results for non professional science students to read. Only a few books are more suitable for college students to read, such as "Traditional Chinese Medicine in Malta", which introduces the knowledge of traditional Chinese medicine from a unique and unexpected perspective, which will certainly arouse strong interest of more than college students.

To sum up, science and engineering students are still relatively lacking in understanding and understanding of the culture of traditional Chinese medicine, which is also due to many reasons. However, college students are more willing to learn about the culture of traditional Chinese medicine and promote the tradition of traditional Chinese medicine. By fully and effectively using short videos, official account, campus related activities and professional books to promote the culture of traditional Chinese medicine, they stimulate the interest of students in learning Chinese medicine culture,

Then, with the help of college students, Chinese medicine culture will attract more extensive and profound attention and attention in the whole society, and ultimately improve the status of Chinese medicine culture in people's life and society, so that Chinese medicine can get rid of its dross, take its essence, better carry forward, and serve the overall health of the people.

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