https://ojs.bbwpublisher.com/index.php/ERD

Online ISSN: 2652-5372 Print ISSN: 2652-5364

# Discussion on the Teaching Reform of Basic Science of Traditional Chinese Medicine

Lixia Wu, Jin Wang, Ruiguo Quan, Jiyan Xu\*

Baotou Medical College, Baotou 014000, China

\*Corresponding author: Jiyan Xu, wlx1334215434@163.com

**Copyright:** © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: This paper discusses the two major problems in the teaching process of the basic science of traditional Chinese medicine. One of the problems is that most of the students have learned the course of traditional Chinese medicine in previous colleges and universities, and they are familiar with the theoretical knowledge of traditional Chinese medicine. Students who follow the traditional teaching model will encounter many repetitive teaching contents, which will make the students feel unmotivated. The second problem is that the students come from different majors, different grades, and different regions, so their background and foundation of traditional Chinese medicine are uneven. According to the above problems, combined with the characteristics of students' learning conditions, this study discusses the reform of the teaching of the basic science of Chinese medicine, including the integration of teaching materials, improving teaching methods, and putting forward some reform ideas such as hierarchical teaching guidance, which is of great significance for improving the quality of education.

Keywords: Higher college education; Basic science of traditional Chinese medicine; Teaching reform

Online publication: June 20, 2024

# 1. The characteristics of the academic situation

Secondary education is an important part of China's higher education system, with the increasing demand for high-quality talents, the importance of secondary education has become increasingly prominent. However, it also faces some challenges, such as the students' different backgrounds and characteristics, and the difficulty of teaching management. Therefore, understanding the characteristics of students' learning situations is of great significance for improving the quality of education [1].

## 1.1. The age and experience of students

Compared with students of other levels, the students are relatively older and have more complicated educational backgrounds. They may already have a certain social experience and career background and have clearer goals and expectations for their studies. At the same time, because their learning foundation and learning ability are relatively weak, the teaching needs to be adjusted according to their actual situation.

#### 1.2. Uneven foundation

For students from different majors, different grades, and different regions, the foundation is uneven. Some students have learned traditional Chinese medicine (TCM) courses in colleges and universities and have a certain theoretical foundation, but some students have been transferred from other majors, such as nursing and clinical sciences, so they have no TCM foundation. The teaching is based on the course class, which is usually composed of about 45 students, and the students' basis is very different, so the students with a good foundation find the lessons too basic while the students with a poor foundation find it too difficult. As time goes by, the students only focus on memorizing knowledge to cope with the exam and lack interest in TCM and the practical application ability of related knowledge [2].

## 1.3. Learning motivation and attitude

The motivation and attitude of the students are the important factors that affect the learning effect. They usually have a strong desire to learn and self-improvement consciousness, hoping to improve their professional competitiveness and social status through learning. At the same time, their learning attitude is relatively positive, can take the initiative to participate in learning, positive thinking, and problem-solving. When students are facing new courses or knowledge points, they usually need a certain period of adaptation. They need to gradually adapt to the new teaching methods and curriculum requirements, and master new knowledge and skills. In teaching, they need to be given adequate guidance and assistance to help them adapt to the new learning environment as soon as possible.

#### 2. Curriculum reform ideas

## 2.1. Integration of teaching materials

At present, the basic science of traditional Chinese medicine (TCM) is a course for freshmen in the university, including "the basic theory of TCM" and "TCM diagnostics". The teaching materials are selected from the 14th Five-Year Plan teaching materials of higher education, including Basic Theory of Traditional Chinese Medicine by Zheng Hongxin and Yang Zhu, and Traditional Chinese Medicine Diagnostics by Li Candong and Fang Chaoyi, with the teaching and research section of traditional Chinese medicine diagnostics is responsible for the teaching tasks. Because most of the students have learned the courses of traditional Chinese medicine in the original colleges and universities, the theoretical knowledge of traditional Chinese medicine is more familiar, according to the traditional teaching mode, there will be a lot of cross-repeated teaching content, so students find the teaching of basic knowledge of traditional Chinese medicine too repetitive and there is crossrepeated content between various subjects. Therefore, teachers should refine, integrate, and summarize as much as possible to avoid repeated teaching. Basic Theory of Traditional Chinese Medicine and Diagnostics of Traditional Chinese Medicine are related in theory, but their curriculum features are quite distinct. One focuses on theoretical interpretation and the other focuses on practice. Therefore, in the course of theoretical teaching, it is necessary to fully consider its characteristics, sort out the teaching content of the basic theory of traditional Chinese medicine and the diagnosis of traditional Chinese medicine, optimize the teaching content, clarify the primary and secondary teaching content, reorganize and integrate relevant knowledge in a targeted way, reduce the repetitive content, highlight the key points, and facilitate students to memorize [3].

# 2.2. The idea of stratified teaching

#### 2.2.1. Stratified teaching

According to the students' existing knowledge base, intelligence characteristics, personal ability, test scores,

interests, learning potential, and other specific conditions, the teacher will explicitly divide them into different levels. To fully understand the students' learning basis, the teacher will take the form of a questionnaire survey before the class begins <sup>[4]</sup>. Finding out the learning basis, learning interests, hobbies, and learning habits of the students in the class can provide a basis for the formulation of the teaching plan <sup>[5]</sup>. In addition, the class teacher, other teachers, and class cadres can be interviewed to understand each student's character, learning potential, learning attitude, and so on.

The teaching goal setting is divided into three kinds of ability goals: basic goal, improvement goal, and development goal [6].

Basic goals refer to the minimum teaching goals that students must achieve in each lesson. These goals are formulated according to the student's learning level and ability and are the basic requirements that most students must meet.

Improvement goals are that most students can achieve their level through their efforts, with the help of teachers and classmates, which is a target for most students.

Developmental goals are suitable for students with solid basic knowledge and active thinking, who like to explore and have a strong interest in traditional Chinese medicine, to provide them with more space for development so that they can dwell deeper into studies.

Secondly, in the teaching process, the combination of teaching and stratification should be emphasized, not only according to the differences of students at different levels, but also pay attention to the gradual teaching process, and properly handle the relationship between teaching and stratification. In the question-asking session, questions of different difficulty can be set and the method of progressive steps can be adopted to take care of the needs of students at three different levels. For questions of low difficulty, a small number of students with weak foundations should be given priority to answer them, and then teachers will make comments and give timely encouragement. For example, when it comes to the relationship between qi and blood, let a few students with weak foundations first answer the physiological functions of qi and blood. Then the students with the general foundation made comments and supplements. Finally, let the students with a good foundation to summarize. For a question with medium or high difficulty, let the students with a good foundation make an exemplary answer. Then assign a similar question to a small number of students with weak foundations to give an imitative answer to consolidate knowledge [7].

## 2.2.2. Stratify instructions

Based on each student's existing foundation status, assign students with similar learning foundations to a group of 4 to 5 people. In cooperative learning, because there are some differences between the members of each group, there should be a reasonable division of labor in the group, so that each member can do their best, and at the same time, there should be a spirit of cooperation. In this way, students learn from each other through intergroup cooperation. Students with better foundations are more prominent in learning ability, learning attitude, and knowledge reserve; students with average foundations can also lead students with poor foundations based on their progress. Through group cooperative learning, students of different levels can learn from each other and make up for each other's weaknesses. For example, in the flipped classroom of qi and blood syndrome differentiation, the teacher analyzes the key points and difficulties of teaching before class, carefully selects typical cases, and then groups the students according to different levels. After analyzing and discussing the typical cases in each group, one student is selected to report and the other groups make evaluations. In the whole teaching process, the teacher gives necessary guidance and summary. When asking questions in class, the students with a good foundation level are mainly inquiry-based and enlightening. For students of a general

level, discussion and question teaching are used. For students with poor basic level, it mainly imparts basic and interesting knowledge [8].

#### 2.2.3. Hierarchical evaluation

Evaluation is an important part of teaching, as well as a test of students' learning process and results. In the teaching process, teachers should formulate a reasonable and effective evaluation system, which can stimulate students' learning enthusiasm and correct their learning attitude. Additionally, it can also urge students to enhance their learning ability and improve and optimize their learning methods [9]. In the hierarchical teaching evaluation system, teachers should pay attention to the developmental evaluation of the process. For example, when the teacher releases a task, the initial score of each part of the task will be divided in advance, and the students can choose the task of corresponding difficulty to complete. After completion, the teacher will comment on the performance of the group and give a total score. The group members will assign the final score of each member according to the total score. The upper limit of the final score should not be higher than the initial score of the task. The purpose of doing this is to break the task down and everyone will choose the moderately difficult part to complete according to their different abilities, to ensure that everyone will participate in it, enhance the participation of students, and avoid situations like unfairly divided group tasks, which is usually completed by one or two students with strong ability, while other students do not feel strongly involved or do not participate at all. When the group members make the final score division, it is the process of students' mutual evaluation. The members of the group give points according to the completion of each person to stimulate students' competitive consciousness and enhance their learning enthusiasm [10].

In the assessment, students with a good foundation or general level focus on the development of knowledge and ability, while the students with a poor foundation mostly evaluate from the learning interest and exploration initiative. In the summary evaluation, teachers should give more encouragement and full support. They should give full recognition to the good performance, and point out the corrections to the areas that need to be improved. For some introverted students or students with a poor foundation, teachers should be more patient and encourage them. At the same time, carefully understand the strengths and advantages of students, and give more positive affirmation, so that students can gradually find confidence in learning and improve their enthusiasm for learning [11].

## 2.3. Conclusion

# 2.3.1. The particularity of higher education should be fully understood

Higher secondary education is a brand-new level of education, through study in colleges and universities, students go to undergraduate colleges and universities for continuing education, it contains both high-level academic education and has the characteristics of continuing education. Therefore, it is necessary to fundamentally change the concept and fully understand the particularity of higher education. Whether it is junior college or undergraduate, the basic science of traditional Chinese medicine is the main course of Chinese medicine specialized courses. Both stages belong to professional learning, and certain repetition of teaching content is inevitable. However, due to the large differences in the professional basic knowledge of students, their understanding and acceptance of TCM and clinical application ability are different. Different age structures, personal experiences, and so on, make their learning ability vary greatly. In addition, a considerable number of students have poor professional basic knowledge or have never been exposed to Chinese medicine before, so the positioning of different educational levels should be different. In the daily teaching activities, teachers should focus on expanding the scope of basic knowledge, deepening the horizontal and vertical links between knowledge, and helping students establish a new knowledge system. This not only saves time but also

meets the requirements of training objectives. It also reflects the characteristics of continuing education.

# 2.3.2. Strengthening and improving the quality of education teachers

Due to the particularity of students' learning situations, teachers need to constantly improve their quality, constantly update their knowledge structure, enrich professional knowledge, broaden their scope of knowledge, and improve their practical ability and innovative ability. They should not only master the most advanced knowledge and theoretical achievements of the subject but also have a solid professional foundation and strong scientific research ability. To meet the requirements of modern education and teaching and the needs of students' development, teachers should also learn how to apply new technological means to classroom teaching. In addition, teachers should actively change the traditional teaching concepts and behavior patterns [12-15]. At present, the students in the college come from different majors, different grades, and different regions, so their foundations are uneven. Therefore, teachers should fully respect the differences in students' personalities and adopt a variety of teaching methods to stimulate students' interest in learning. Teachers should attach importance to combining theory with practice, emphasizing the students.

# **Funding**

Practice and Research of Student-centered Teaching Reform of Chinese Pharmacy (NGJGH2021204); Baotou Medical College 2022 Curriculum Ideological and Political Special Teaching Reform Project "Student-centered Ideological and Political Teaching of Chinese Pharmacy" (2022KCSZ-11); 2023 Baotou Medical College Scientific Research Fund Project Science and Innovation Integration Education Research Project "Innovative Integration of Chinese Pharmacy Curriculum System Construction" (BYJJ-KCRH9)

#### Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Luo Q, 2021, Research on Optimization Strategy of Traditional Chinese Medicine Basic Teaching. Journal of Science and Education, 2021(20): 113–115.
- [2] Li XH, Lian LJ, Tang YP, et al., 2022, Integration of TCM Basic Theory and TCM Diagnostics for Nursing Majors in TCM Colleges. Journal of Guangxi University of Chinese Medicine, 25(01): 62–64.
- [3] Li Y, Wang XL, Lu YZ, et al., 2015, Exploration and Practice of Content Optimization and Integration of TCM Diagnostics Textbooks. Modern Distance Education of Chinese Medicine, 13(03): 110–112.
- [4] Zhu ZH, Zhao WC, Zhou LP, 2018, Discussion on the Teaching Model of Hidden Stratification and Group Cooperative Learning in the Class of General Biology of Chinese Medicine Major. Journal of Zhejiang Chinese Medicine University, 42(11): 975–978.
- [5] Ye YQ, 2021, Research on the Practice of Traditional Chinese Medicine Teaching Reform in Higher Vocational Colleges under the Background of Information Age. Comparative Research on Cultural Innovation, 5(20): 50–53.
- [6] Wang L, 2023, Research on the Effective Application of Stratified Teaching Method in Middle School Mathematics Classroom. Journal of Learning, 2023(19): 64–66.
- [7] Wang QG, Zhong J, Zhu ZD, et al., 2015, Application of Step-by-Step Case Teaching Method in TCM Internal Medicine Clinical Internship. Journal of Guangxi University of Traditional Chinese Medicine, 18(01): 133–135.

- [8] Zhang M, Xia Y, 2023, Design of College English Curriculum for Higher Vocational Education: A Case Study of Unit 1 of Unimpeded English (4th Edition) Advanced Course. Overseas English, 2023(17): 230–233.
- [9] Si CY, Wang YX, Zhang HL, et al., 2023, Application of Intelligent Teaching Tools in Mixed Teaching of Internal Medicine in Chinese Medicine Colleges. Chinese Continuing Medical Education, 15(18): 1–5.
- [10] Li X, Deng LN, Hu Y, et al., 2020, Research on Educational and Teaching Reform in Colleges and Universities. Education and Teaching Research, 34(12): 91–119.
- [11] Lin BQ, Tang M, 2018, Application of "Flipped Classroom" Project-based Teaching Method in College Curriculum Design: A Case Study of Art Education and Activity Guidance for Preschool Children. Journal of Shaanxi Preschool Teachers College, 34(02): 63–68.
- [12] Li WH, 2023, Research on the Reform Path of English Teaching in Higher Vocational Colleges based on the Background of the Convergence of Middle and Higher Vocational Colleges. Modern Vocational Education, 2023(18): 153–156.
- [13] Chen X, Liang CY, Jiao XA, 2024, Exploration on New Agricultural Talent Training Model. Journal of Yangzhou University (Higher Education Research Edition), 28(01): 24–32.
- [14] Chai Q, 2024, A Study on the Improvement of Teaching Innovation Ability of College Teachers under the Background of Specialization and Innovation Integration. Social Science Journal of Jiamusi University, 42(01): 160–164.
- [15] Jiang L, 2017, Research on the Cultivation Path of "Craftsman Spirit" among Students in Higher Vocational Colleges. Journal of Lanzhou Petrochemical Vocational and Technical College, 17(1): 47–49.

#### Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.