Exploration and Practice of Online Demonstration Course Construction under Homogenized Teaching Needs of Master of Chinese Medicine

Ruili Li[1,a], Lingyu Wang[2,b], Wenxuan Cao[2,c], Hailin Jiang[1,d, *]

{[a]377311060@qq.com, [b]w1595153282@163.com, [c]2714460403@qq.com, [d]jianghl@ccucm.edu.cn}

Graduate School, Changchun University of Chinese Medicine, Changchun 130117, China[1]
Department of Pharmaceutical Science, Changchun University of Chinese Medicine, Changchun 130117, China[2].

Abstract. The training of Master of Chinese Medicine in traditional Chinese medicine is crucial for the development of the national health care system. Homogenized teaching has always occupied an important position in modern educational work. Facing the development and challenges of traditional Chinese medicine, combined with the need for homogenized teaching in the process of master's degree education in Chinese medicine, the construction of an online model course is therefore proposed. Measures have been proposed to further improve the quality of graduate education in the production of online demonstration courses, utilizing a multimodal blended learning model for course design and evaluating courses from multiple perspectives to ensure the teaching quality of online demonstration courses to the greatest extent possible, thereby providing support for the cultivation of Master of Chinese Medicine.

Keywords: master of Chinese Medicine, homogenized teaching, online model course, multimodality

1 Introduction

The training of master of traditional Chinese medicine aims at cultivating high-level professionals of traditional Chinese medicine. Professionals of traditional Chinese medicine not only need to have a solid theoretical foundation in Chinese medicine, systematic professional knowledge and skills, but also need to have the spirit of innovation and practical ability. With the continuous development of the national medicine policy and the continuous improvement of the healthcare system, the demand for high-level talents specialized in Chinese medicine has gradually increased[1]. From 2020 to 2025, the state has clearly pointed out that the enrollment scale of the master's professional degree will be expanded to about two-thirds of the total enrollment of master's degree students[2]. In the process of expanding graduate enrollment, the proportion of teachers and students continues to increase, which has also led to problems such as insufficient educational resources and reduced teaching quality, directly affecting the quality of graduate training[3]. At present, online education mostly focuses on student education. The construction of online demonstration courses not only considers the student level, but also provides teaching demonstration references for teachers. The construction of online demonstration courses has brought many advantages to students,

teachers, and the education system, including flexibility, personalized learning, educational equity, resource sharing, and other aspects.

2 Homogeneous teaching demand of master of Chinese Medicine

Homogenized teaching refers to the process of education, through a unified teaching philosophy, methods, resources, etc., so that the distribution of educational resources is uniform, to achieve equalization of teaching quality, so that every student can receive a high level, high quality of education. Homogenized teaching has an extremely important position in modern education[4]. The Guiding Cultivation Program for Master's Degree Graduate Students of Traditional Chinese Medicine issued by the Ministry of Education requires that the Master of Traditional Chinese Medicine should have no less than 33 months of training time in the clinical training bases, while graduate students are enrolled in the program for only three years, which also creates a lot of difficulties in the teaching arrangement of the theoretical courses. Table 1 shows the research on the curriculum of master's degree in 13 universities of traditional Chinese medicine.

Table 1. Research table of Master of Chinese Medicine course offerings in 13 universities of traditional Chinese medicine

serial number	Name of the school	Teaching Arrangements for Master of Chinese Medicine
1	Fujian University of Traditional Chinese Medicine	1 month of intensive face-to-face school classes, the rest of the time online classes
2	Tianjin University of Traditional Chinese Medicine	Courses offered at the standardized training base for residents
3	Shanghai University of Traditional Chinese Medicine	Courses offered at the standardized training base for residents
4	Jiangxi University of Chinese Medicine	Courses offered at the standardized training base for residents
5	Zhejiang Chinese Medical University	focus on face-to-face teaching for 1 month to complete the public courses, specialized courses by the standardized training base for residents
6	Shanxi University of Chinese Medicine	Courses offered at the standardized training base for residents
7	Nanjing University of Chinese Medicine	Courses offered at the standardized training base for residents
8	Heilongjiang University Of Chinese Medicine	Courses offered at the standardized training base for residents
9	Hunan University of Chinese Medicine	1.5 months of intensive summer school instruction
10	Liaoning University of Traditional Chinese Medicine	Courses offered at the standardized training base for residents

11	Shandong University of Traditional Chinese Medicine	1 month of intensive face-to-face school classes, the rest of the time online classes
12	Beijing University of Chinese Medicine	Most of the courses are offered at the school, and a small portion of the courses are offered at the residency training sites
13	Guangzhou University of Chinese Medicine	1 month of intensive summer school instruction

2.1 Difficulty of centralized instruction and non-uniformity of teaching resources in standardized training bases

The research table shows that 7 out of 13 colleges and universities have chosen to offer courses at training bases. However, standardized training bases are often distributed in different cities, counties and districts.Students cannot achieve centralized teaching, and it is difficult to ensure the unity of teaching quality by teaching separately in each regulatory training base, and most of the training bases are obviously insufficient in terms of teachers' strength. On the one hand, physicians have not undergone systematic training for teachers and lack teaching methods and teaching ability to complete teaching tasks with high quality and provide students with a quality educational environment.On the other hand, due to the insufficient number of personnel competent for teaching tasks, teachers taking on an excessive number of teaching tasks, making it impossible to ensure the quality of teaching.

2.2 Short duration and difficulty of centralized instruction

5 of the 13 universities chose to concentrate on teaching during the period of 1-1.5 months. The postgraduate curriculum should meet the requirements for degree conferment as well as standardized training of Chinese medicine residents, and the categories of the courses include public compulsory courses (politics and English), professional basic courses, professional courses and elective courses.All the course schedules were completed within that time and the corresponding assessments were set up, which made the lectures more informative and difficult to taught. Two of the colleges and universities chose to offer the courses during the summer, which required the teachers of the courses to sacrifice their rest time and increased the pressure on the teachers to deliver the courses.

3 Problems to be solved in the online demonstration course

With the advent of the network information age, higher education has also been influenced by the rapid development of information and communication technology. For example, the introduction of Massive Open Online Courses(MOOC), which aims to provide a comprehensive education model[5]. Since 2013, China's institutions of higher education have been carrying out MOOC.Online course has been developed for ten years[6]. Under the promotion and guidance of relevant national policies the research and development of China's online education courses have made very significant achievements.

3.1 Solving the problem of inconsistencies teaching quality in standardized training bases

Taking the master's degree students of Chinese medicine in our university as an example, the students are scattered in four standardized training bases. Although the same syllabus is used in each base, most of the lecturers have not received or seldom received systematic training related to teaching, lack of teaching theories and pedagogical knowledge, relatively outdated educational concepts and teaching methods, and insufficient teaching experience and teaching ability[7] which are unable to meet the learning needs of the students, and it is difficult to realize the equalization of the quality of teaching. Teathers can optimize teaching concepts, learn teaching methods and reference teaching contents through watching online demonstration courses, and teach the contents in a more comprehensive and detailed way with the learning of online courses, so as to ensure that every student can receive high-level teaching.

3.2 Solving the problem of insufficient teachers in standardized training bases

With the rising demand for high-level talents in China, the expansion of postgraduate enrollment has become an inevitable trend[8]. The continuous expansion of postgraduate enrollment and the increase in training demand have led to an imbalance in the teacher-student ratio and insufficient number of teachers in standardized training bases. Postgraduate courses usually involve deeper professional knowledge, requiring teachers to constantly update the teaching content and change the teaching method, while the standardized training base teacher strength is relatively weak, the curriculum teaching infrastructure appears to be more and more lagging behind, which seriously affects the quality of teaching. Increase the use of online demonstration courses to realize the combination of online and offline teaching methods. Combined online and offline teaching breaks the time and space limitations compared with traditional teaching, so that students can study at their own time and place, arrange the study plan according to their own learning needs and progress, and effectively alleviates the problem of insufficient faculty strength.

3.3 Address the problem of poorly organized courses

In order to ensure sufficient clinical training time for masters of Chinese medicine, some schools choose to centralize the teaching and complete the teaching of all course contents in 1-1.5 months, or even choose to teach during holidays, which takes up the teachers' rest time. On the one hand, teachers need to prepare high-quality courses, including the design of teaching content, the application of teaching methods, and the setting of course assessment, etc. These tasks require a lot of time and energy, and the completion of all the teaching arrangements within a short period of time has greatly increased the pressure on teachers to teach. On the other hand, centralized teaching is also a great challenge for students. Courses at the postgraduate level are more complex and in-depth, requiring more time investment.Completing all the courses in a short period of time is time-consuming and task-intensive, making it difficult to ensure the quality and efficiency of students' learning. Online model courses can be constructed to specialize in the master level of Chinese medicine, effectively guaranteeing the precise depth, coherence and cutting-edge of teaching knowledge.It can effectively alleviate the pressure of teachers' lectures as well as students' learning pressure, and improve the quality of learning.

4 Production of online model courses

Taking the online course recording of Master of Traditional Chinese Medicine as an example, the author analyzes it from multiple perspectives and proposes the following aspects in order to ensure the effectiveness of online model course production.

4.1 Selection of a high-quality recording team

There are a lot of things to pay attention to the recording of online demonstration courses, and every part of the recording process should be taken seriously. (1) Ensure that the equipment is stable: in the process of recording the course, make sure that the equipment is stable to avoid screen jitter. (2) Pay attention to the recording environment: choose a quiet environment when recording the course to avoid noise and other interference in the recording process. (3) Pay attention to the voice speed: when recording the course, you should pay attention to the moderate speed of speech, clear articulation, clear and fluent language expression. (4) Post-editing: the course should be articulated naturally, no blank screen, while adding subtitles below the course, you need to leave the corresponding space in the recording process. Clear and stable recording effect can enhance the quality and effect of the demonstration course, so the course recording team should be strictly selected. You can hire professional video recording and post-production personnel, or strengthen the training and technical support for production staff, to fully protect the quality of the video course and viewing experience.

4.2 Designing quality instructional content

Online model courses should be centered on teaching content, graduate student teaching is different from undergraduate favoring theoretical knowledge, more attention should be paid to the practicality and foresight of teaching content. High-quality teaching content aims to cultivate the ability of graduate students to think independently.In content design,we should increase the depth and breath of the subject frontier crriculum, to expand the depth and breadth of the teaching content, to increase the graduate students' horizons and knowledge. Teachers can invite authorities in related fields or teachers with rich teaching experience and practical experience to give course lectures according to the teaching content and teaching objectives. Teachers can also organize teachers to watch academic frontier lectures and seminars, pay attention to the latest research results and technical developments of the profession, constantly update the course content, and ensure the scientific, real-time and cutting-edge nature of the course content.

4.3 Matching appropriate learning materials

In order to ensure the standardization and practicality of the online model courses, they can be matched with appropriate learning materials. The choice of learning materials can refer to the following: (1) course guide: To help students understand the content of the study, provide learning advice, and rationalize the development of learning plans. (2) PowerPoint courseware: PowerPoint courseware can be used as a supporting resource for online demonstration courses, which is convenient for students to watch and learn repeatedly, and at the same time, it can be supplied to other teachers for demonstration and learning. (3) Teaching Cases: Select research-based and cutting-edge teaching cases and set up reflection questions. (4) Teaching materials: It is recommended to choose tutorials published in the last three years or reprinted to ensure

the timeliness of the content. (5) References: references related to the course content can be selected to help students expand their learning content.

5 Application of online model courses

The online model course is not only purely teaching the course content to students through video, the interactivity of the course is the key to improve the quality of teaching. On the one hand, students can obtain learning resources through the online platform; on the other hand, students can also interact with teachers online to improve class participation[9]. Through the continuous practice and exploration of the online model course, we have developed a multimodal blended teaching model. In our daily life, the modal information we come into contact with mainly includes images, text, audio and video, multimodal that is, through the fusion of two or more modal information to mobilize our senses to complete a series of expression. The model mainly adopts the design idea of pre-class - class - post-class, in the process of the application maximum stimulate the students' interest in learning, to meet the students' learning needs. First of all, before class, teachers can release learning tasks before class, organize students to discuss in groups, help students complete the initial understanding and mastery of the course content. Students discuss the learning tasks in groups before the class and record the difficult problems. During the lesson, students need to complete the learning tasks issued by the teacher before the lesson, and the teacher will check the completion of the task list. The teacher can answer the difficult questions according to the students' learning situation before the lesson, and at the same time, try to guide the students to actively explore and summarize the difficult problems, and help the students to improve their independent thinking and problem solving ability. At the end of the course, post-course assignments can be arranged according to the course content to check the students' learning effect. After the course, teachers can monitor the back-end of the online teaching platform to check the length of students' course viewing, and at the same time consider the course grade assessment according to the completion of post-course assignments. The homework can also be graded by student groups to consolidate what they have learned. The specific process is shown in Figure 1.
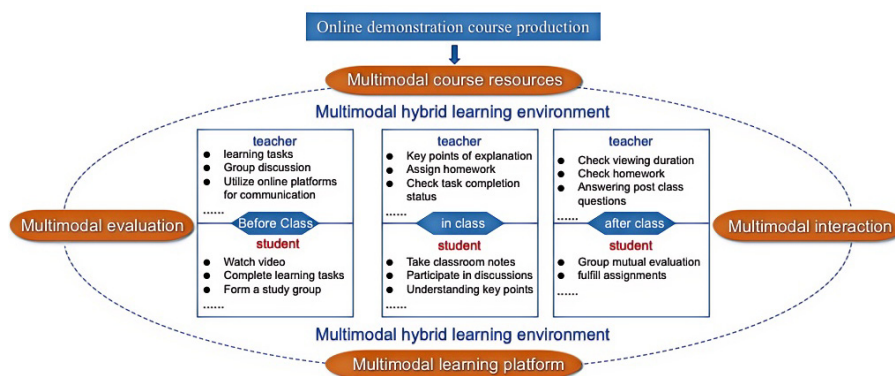

Fig. 1. Architecture Multimodal blended online model courses

6 Evaluation of the online model course

Scientific and reasonable evaluation of online model courses is the key to guarantee its teaching content, and it is crucial to realize the evaluation of online model courses from multiple aspects for continuous improvement to enhance the quality of teaching.

6.1 Teacher evaluation

After the online model course is online, the method of teachers' self-evaluation or mutual evaluation among teachers is used to help teachers improve their teaching techniques and continuously optimize and improve the effect and quality of the online model course. The evaluation system can be based on the evaluation system of five first-level indicators established by Yao Kai et al. in terms of teaching design, course content , interface design, media technology and course management[10]. Specific evaluation contents can refer to the following: (1) Teaching design: whether the length of learning knowledge is reasonable; the number of people participating in the learning activities, and so on. (2) Course content: the consistency of the course content with the teaching objectives; the scientific and forward-looking nature of the course content, whether the source of the content is reliable, whether the amount of knowledge in the course content is reasonably arranged. (3) Interface design: whether the video screen is simple and generous, reasonably laid out, and comfortable to watch; whether the navigation path in the course and the various modules for accessing the course are easy to operate. (4) Media technology: whether the video screen is clear and smooth, image stability, sound and picture synchronization; whether the teacher's image is generous and in line with the professional norms for teachers. (5) Course management: whether the overall planning and development process of the online demonstration course is standardized, whether the management rules are reasonable, and whether there are any other comments.

6.2 Evaluation of learning outcomes

Learning effect evaluation is the key to evaluating whether the online model course model course achieves the desired teaching results, and learning effect evaluation can be carried out in the following aspects: (1) evaluation of participation in the online model course: participation in videos, participation in classroom exercises, participation in discussion forums, and participation in exams; (2) evaluation of the process of the online model course: through the back-end of the online platform to test the records of the learning process, the learning situation of the unit; (3) performance in the online model course teaching: to assess the learning effect through the analysis of assignment results, class test results, and final grades.

7 Conclusions

With the help of online teaching platform, the online model course breaks the time limitation and space limitation in the process of cultivation of Master of Chinese Medicine, and completes the course teaching arrangement in a more personalized and rationalized way. At the same time, the construction of online model courses provides students with more comprehensive,reduces the differences in the process of Chinese medicine training course

arrangement due to many reasons, and promotes the fairness of Chinese medicine talent training. However, while applying online model courses, reasonable course application and scientific evaluation methods are all crucial to achieve homogenization of education and guarantee teaching quality. At present, the construction of online model courses is still in the stage of exploration and practice, and the corresponding system is not perfect enough, which needs to be improved and improved in the future, it is expected that the application of online model courses can make up for the deficiencies in the teaching and learning work, and provide favorable support for the cultivation of high-level traditional Chinese medicine professionals.

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