Research on the Implementation of Information-Based Teaching in Medical Education

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Abstract: The implementation of information-based teaching in medical teaching has gone through many years, and the problems of scientificity, sufficiency and comprehensiveness in teaching have gradually exposed, which seriously affect the quality of information-based teaching, research progress and teaching achievements in medical education. In this regard, in view of the advantages of network multimedia information technology, combined with the application concept of modern teaching technology, teaching conditions and methods. The organic combination of advanced medical education technology and diversified information technology teaching technology, while promoting information technology teaching reform, can provide reform and development opportunities for the implementation of medical education under the operation of its mechanism. From the perspective of information-based teaching, this article explores its impact on medical education, grasps the disciplinary characteristics of the medical specialty, and avoids repetitive, mechanical, and unitary instructional design. Attach importance to the organic integration between the teaching plan and the professional nature, and then put forward the innovative development direction and improvement strategies of informatization teaching in medical education.

1. Introduction

The state attaches great importance to the training of medical and health personnel and has formulated a series of policies and policies conducive to medical education. The medical professional knowledge system is large and complex, and there is a large amount of information. Some universities and colleges are constantly trying to apply new teaching concepts and educational teaching techniques to enhance the quality and activity of classroom teaching, such as the more commonly used micro-teaching and flipping classes. At this stage, with the mature development of information technology and the innovative application of various forms of mobile multimedia equipment, the implementation of informationization concepts into medical education has become a major problem faced by medical educators. It is mainly reflected in the need to change the past teaching or learning habits for both educators and students. The completion of this process can not be achieved overnight. In this regard, to promote the development of medical education informatization, it is necessary to put the popularization of informatization teaching concepts and principles and methods in the first place. According to the nature of medical education, we should give full play to the advantages of network multimedia technology, that is, flexibility, fragmentation, large amount of information and convenience. However, along with it, there are some differences in the nature of running schools and educational resources in different universities, which leads to the uneven quality of information-based medical education. In order to explore the effect of information-based teaching in medical education and improve the teaching approach, it is urgent to study.

2. The Integration of Information Teaching and Classroom Teaching

This paper analyzes the combination of educational technology and subject teaching, pays attention to educational practice, and combines the situation of basic teaching equipment and teaching technology in Colleges and universities. For example, multi-functional classroom, multimedia laboratory, digital resource management, online live course management room, etc. are

the guarantee contents to promote information-based teaching. The application of information-based teaching in medical education has gone through many years, and there has been some understanding and development in the understanding of integration method, teaching design and teaching concept. However, there are still some colleges and universities with problems such as inadequate information technology, inappropriate methods, and single form. This will affect the application quality of information-based teaching in medical education, and the use of virtual reality technology will not play its fullest role. In this regard, the research on the implementation of informatization teaching in medical education has very important research significance.

The particularity of medical education is reflected in clinical teaching, which is related to the practical teaching content of medical skills. In general, the education and teaching methods related to medical skills are to organize students to perform diagnostic operations on ill patients or entities, and students can obtain real clinical experience in teaching practice. Infiltrating the comprehensive quality education content of clinical medicine in teaching plays a vital role in promoting students to form medical practical ideas. With the expansion of college enrollment, the limitation of internship position, internship object and internship conditions, if the traditional apprentice teaching practice mode is still adopted, some problems will inevitably arise, and it is difficult to achieve the ideal teaching quality and internship effect. For example, in terms of typical case teaching resources, human-oriented thinking in medical education has gradually improved, and patients' satisfaction conditions have become relatively complex. The change of the number of practice objects, the development of patients' condition and the degree of medical cooperation also have differences, which will affect the clinical practice effect of medical education, as well as the quality and scale of teaching.

However, with the development of information technology and virtual simulation technology, the integration of information technology and education and teaching technology promotes the progress of medical teaching, as well as the development of multimedia teaching resources and the innovation of simulation training system. It can be said that information-based teaching has played a positive role in the reform of traditional medical teaching methods. However, due to the high-end form of medical teaching virtual simulation training system, such as data gloves, data helmets and so on, which is more expensive, it is difficult to be widely implemented in various regions and universities. In the face of the demand of medical teaching reform, the relevant scholars should form a consensus. Based on the existing information-based teaching technology and resources, the hardware teaching technical conditions such as virtual human digital models, simulation models, multimedia teaching equipment, and computer virtual training software or systems are used. Implement a medical teaching plan based on information-based teaching and organically integrate it with general medical teaching plans. In this process, it is not to completely deny the traditional medical education model, but to make up for the weaknesses between traditional medical education and information-based teaching. Through the integration of multi-directional information-based teaching technology and advanced teaching methods, starting from a single teaching link and continuously expanding to the entire medical education process, a comprehensive, systematic, standardized, and universal medical education system is formed. Forming focused and synergistic educational goals. Not only that, focusing on the innovation of information-based teaching concepts and teaching methods, and creating an environment suitable for medical education is a trade-off between the development of virtual informationization of medical education and practical teaching in China at this stage.

3. Implementation of Information-Based Teaching in Medical Education

3.1 Establish Excellent Teaching Resource Sharing System

The quality curriculum in the medical education category is essentially consistent with other professional disciplines. It is an important link for colleges and universities in various regions to carry out college teaching reform and improve teaching quality. Since the introduction of the strategic goals of the top-quality courses, a top-level national-level top-quality course word-sharing

curriculum has been formed, and it has formed a universal scale of development in promoting new curriculum reform, educational innovation, and information technology teaching and teaching resource sharing. Most colleges and universities actively participate in the construction of high-quality resource-sharing courses, and have already issued scales in teaching direction and curriculum development, and have formulated activities related to medical education. Some problems still inevitably arise in the construction of high-quality classrooms in colleges and universities, such as the singular informatization of teaching methods and the nature of medical education. Lack of teaching feedback and interaction modules, students' participation in the information user interface, etc. As one of the main lines of medical specialty, offering excellent medical education courses is also a yardstick for evaluating teaching quality. It should advance with the times in terms of content and form, and innovate. In the information teaching content, technology and theoretical knowledge should be combined from basic subjects to clinical medicine. Constantly introducing new teaching concepts and information technology in the field of foreign medical education, and combining with the situation of domestic medical education, the focus is to cultivate students' scientific research thinking and vision. Not only that, the construction of excellent course teaching module, but also the establishment of information-based teaching resources and medical information. In the process of teaching theoretical knowledge and medical practice courses, students can obtain cutting-edge medical trends and expand their knowledge through sufficient resource data. In view of the teaching interaction of the excellent courses, we should combine the information-based teaching technology, and set up some columns of modules that can mobilize the initiative, interaction and innovation of students, such as: in class test, case analysis, question answering, etc. Teachers should consciously implement the concept of information-based teaching into the teaching process, give more independent activities to classroom teaching, and guide students to think and practice. The information-based teaching can show the experimental and clinical modules vividly, which is convenient for teachers to observe and receive students' feedback, and thus more conducive to helping students to answer questions and solve doubts.

3.2 Reasonable Application of Multimedia Teaching Method

Ppt, handout or classroom experiment are the teaching methods of medical specialty in most universities. According to the teaching direction, subject characteristics and school running characteristics, college teachers will apply multi-media teaching methods to carry out the advantages of information-based teaching in medical education. For example, the teaching of medical analysis biology involves micro molecular action and spatial knowledge, and the teacher plays multimedia animation or video in the classroom. It is more beneficial to explain the knowledge and help students to understand the molecular properties. In the implementation of anatomy course, the number of anatomical specimens is limited, and some specimens are not easy to transport and store. However, in most cases, it is not guaranteed that every student can operate "hands-on". The medical simulation technology can effectively alleviate the problem of scarce specimens, and students can better understand the relevant theoretical knowledge in hands-on anatomy. The continuous development of science and technology will innovate and excavate information-based teaching technology that is more suitable for medical education. This requires teachers to be able to update teaching concepts, innovative teaching methods, and advance with the times, and continuously improve the teaching effect and quality. In adherence to the "people-oriented" teaching philosophy, we pay attention to students' subjectivity, interaction, and enthusiasm.

3.3 Building a Teacher-Student Interactive Platform Based on Campus

WeChat and QQ are the largest mobile Internet software for online users in China. The functional modules such as communication and business office are gradually diversified, providing a platform for users to communicate and interact. The establishment of a teacher-student communication group based on the campus main body can maximize the elimination of the slow flow of information, publish information in real-time in the group, and recommend students to

public numbers or resource links that are conducive to medical learning. Students can understand and find medical trends according to their own learning direction, which provides convenient "communication" conditions for the society to cultivate comprehensive medical talents. At the same time, in the communication group between teachers and students, we can answer and discuss with each other, which can solve students' doubts or difficulties in medical learning in time. At the same time, we can publish learning experience and knowledge understanding in the group for teachers to test. The digital functions of wechat, QQ and other platforms, such as voting and questionnaire survey, can promote efficient and convenient communication between teachers and students. The establishment of communication group between teachers and students can correctly guide students to reasonably use the functions of mobile phones, form good habits of using mobile devices, strengthen students' autonomous learning ability, and reasonably use fragmented time for learning according to their own learning plans and rhythms.

3.4 Reasonable Use of Network Video Teaching Platform

In China, MOOC and Netease cloud have mushroomed in other forms of online live platforms, all of which have universal characteristics. For example, friendly interface, many subjects, wide audience, strong interaction, easy to download and learn, etc. Through recording video and live video, we make full use of information technology to realize online teaching without time and space constraints. Among them, the live teaching platform is more popular with the majority of students. Under the circumstances of network conditions, students can learn online through "off-site" and review the course if necessary. Students can also choose to download and play, which can get more learning resources and broaden their horizons. In addition, these online teaching platforms are equipped with some in class tests, feedback functions and online questions. Through the background information received by the teacher, the teacher can solve the students' doubts and correct the error-prone knowledge points of the students in a timely manner. These are the interpretation of the personalized and targeted characteristics of the information teaching. With the blowout development of the live broadcasting industry in China, a comprehensive teaching website with different characteristics has begun to launch a live teaching interface. With the prevalence of new media, medical education is naturally in this queue. In addition to the necessary information terminals, live education courses. Students can also contact famous teachers in colleges and universities and foreign scholars, and also restore classroom teaching to the greatest extent, supporting one-to-one and one-to-many models. However, this kind of live teaching is greatly affected by network factors, and there is still a certain gap between classroom teaching efficiency and recording and broadcasting. Considering the professional, practical and systematic characteristics of the medical teaching knowledge system, the live education platform plays a role of supporting teaching.

4. Conclusion

All in all, the application of information-based teaching in medical education is necessary from the diversified teaching design, curriculum design, live broadcast platform, teacher-student interaction platform, and teaching resource sharing system. But it also depends on the direction of social development and the running conditions of colleges and universities. Informatized medical education based on virtual reality should incorporate the nature of medical education in terms of teaching philosophy, teaching methods, and teaching conditions. Adopt exploratory and targeted teaching plans and content, continuously improve the conditions of medical education technology, innovate and develop medical education resources, and then make up for the lack of curriculum teaching resources. It can be said that the traditional medical education mode is out of line with the development of the times, but it does not mean that it should be completely denied, and the key is to balance the traditional teaching and information-based teaching. The application and practice of information-based teaching in medical education, as well as the new teaching methods and models put forward in this framework, are necessary means to deepen the reform of educational technology, with the constructive and reform characteristics of the development of medical education. With the

development of society, the demand for medical talents tends to be professional, comprehensive and comprehensive. How to train medical students to become compound talents in time is a major issue facing the development of medical education, and also one of the issues of social concern, which still needs the majority of medical educators to forge ahead.

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