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Application of Hybrid Teaching Method Based on Cloud Classroom in the Teaching of General Surgery in Higher Vocational Colleges

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Abstract: With the arrival of the “Internet plus” era, profound changes have taken place in the field of medical education and teaching. Under the strong support of the powerful cloud classroom platform, the hybrid teaching mode, which combines “online+offline”, is popular. Through the organic combination of online and offline teaching methods, hybrid teaching presents its own advantages and plays an important role in improving teaching quality and teaching effect. Integrating information technology into the construction of medical education courses and promoting education informatization has become a new topic for the reform of teaching methods in medical schools in the “Internet plus” era. In the teaching of General Surgery in higher vocational colleges, the hybrid teaching based on cloud classroom has been widely implemented and achieved good teaching results. Its application experience can provide many references for the reform of teaching methods in medical colleges.

Keywords: Cloud classroom; Online and offline hybrid teaching; Higher vocational colleges; Introduction to Surgery

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With the continuous development and progress of science and technology, human society has entered the era of “Internet plus”. In recent years, with the development of big data, mobile Internet and cloud computing, the integration of these new generation information technologies with all walks of life has been deepening, promoting profound changes in all industries. In the field of education, as early as 2012, the Ministry of Education proposed to promote the integration of information technology and teaching, and explore the establishment of a new learner centered teaching model. As a strategic plan in the field of education in China, education informatization has become an important guideline for medical college personnel training. The training mode of “Internet plus Education” in medical colleges and universities makes full use of modern information technology, applies the achievements of information technology to the development of education and teaching, and promotes the new reform of the training mode of medical education.

1. Overview of online and offline hybrid teaching

Online and offline hybrid teaching is a new teaching mode, which combines the traditional face-to-face classroom teaching with online teaching based on cloud classroom, making the two teaching methods complement each other, which is conducive to the completion of teaching objectives and the improvement of teaching effects. Under the mixed teaching mode, online and offline teaching methods give full play to their respective advantages and characteristics to optimize learning objectives, improve students’ learning autonomy, and students can achieve the best learning effect in deep learning. On the one hand, mixed teaching resources are more abundant. Under the previous face-to-face classroom teaching mode, the way for students to obtain knowledge is relatively simple. In the online teaching based on VR, AR, 3D and other new generation information technologies, teachers introduce high-quality classroom resources to students in classroom teaching or outside the classroom with novel teaching methods such as Moke, micro class, flipped classroom, and present colorful video and audio resources to students via the Internet, which is more realistic The

three-dimensional presentation improves the teaching situation and teaching effect. On the other hand, the teaching method of mixed teaching is more flexible. Mixed teaching combines the advantages of traditional teaching methods with the advantages of network teaching. Teachers play the role of guider, elicitor and monitor in teaching activities. According to the education concept of “student-centered”, they respect the dominant position of students in learning and give play to their enthusiasm, initiative and creativity in learning.

2. Analysis of the necessity of online and offline hybrid teaching in the teaching of general surgery

2.1 The inflexible one-way transmission teaching mode is not conducive to students’ learning initiative

Surgery has a wide range of professional knowledge and courses with strong practicality. It is a key course for clinical medicine majors. However, for many years, the main teaching method of this course is that professional teachers, based on the teaching objectives and syllabus of the course, implement the “spoon feeding” one-way transmission teaching method. Teachers are used to imparting all the knowledge they know to students. However, this course form often gives people a single and boring feeling, which makes it difficult to stimulate students’ interest in learning. Especially for vocational college students with relatively weak learning foundation, it is difficult for them to take the initiative to seriously study this course under such teaching forms. Based on this, it is necessary and practical to make up for the shortcomings of traditional teaching methods with online and offline hybrid teaching methods.

2.2 The students’ different learning foundation provides conditions for the implementation of the mixed teaching method

At any stage of learning, students’ learning basis is different. Even higher vocational college students within the same score range have different learning abilities and different mastery of theoretical knowledge. In the teaching practice, teachers often find that the learning state of the same class has two levels of differentiation. Under the previous offline classroom teaching form, teachers always try to take care of students with different learning bases and progress in teaching, and often adjust their own teaching content. However, no matter how teachers adjust the teaching content, they can never give consideration to all students. Teachers can only carry out teaching activities on the basis of most students’ learning, but the result is often that students with strong learning ability feel that the teacher’s teaching progress cannot meet their learning needs, while students with weak learning ability think that the teacher’s teaching pace is too fast and hard to learn. This kind of teaching method that can’t teach students according to their aptitude will cause a vicious soul ring in teaching, which will eventually hit the students’ enthusiasm for learning. In this case, the online and offline hybrid teaching gives students the space to choose independently.

2.3 Online and offline hybrid teaching mode can effectively improve the utilization rate of various learning resources

The teaching content of General Surgery is extremely rich and extensive. It is difficult to achieve the systematic, comprehensive and scientific teaching of this course only by the teacher’s explanation in the classroom or the teaching materials on the books. Moreover, due to limited classroom time, teachers often need to rely on curriculum integration to compress theoretical courses, let alone expand teaching content and one-to-one communication with students. Therefore, the simple classroom teaching method is easy to make the teaching of this course thin. From this perspective, the online and offline hybrid teaching mode of expanding teaching content with network resources can integrate rich network teaching resources into teachers’ offline teaching, which can not only expand the space for students’ independent learning, but also effectively improve the utilization of various learning resources. In addition, the mixed teaching mode also makes the way for students to learn and update knowledge more convenient and efficient. This mode vividly presents pictures, sounds, videos, etc. in VR, AR, 3D and other ways, so that students can understand the learning content more intuitively and deeply, and increase the interest and image of teaching. Under this teaching mode, students’ learning initiative is improved.

3. Strategies of applying online and offline hybrid teaching in the teaching of general surgery

In the clinical medical education and teaching, “General Surgery” is an important professional basic course for medical students. With the rapid development of clinical medicine, the infiltration and integration of various disciplines are gradually strengthened. In this case, improving the teaching effect of surgery course, establishing students’ good clinical thinking, and cultivating learning and innovative medical professionals have become the new challenges for clinical medical education and teaching to adapt to

the development of medical and health undertakings in the new era. Traditional classroom teaching methods have shown many disadvantages in teaching practice. The “online+offline” hybrid teaching mode based on cloud classroom, based on theoretical knowledge and clinical thinking guidance, can make better use of rich curriculum teaching resources, and can effectively promote the improvement of teaching quality and the realization of teaching effect in the teaching atmosphere of flexible teaching forms and close interaction between teachers and students. Therefore, the following strategies can be used in the practice of hybrid teaching in the teaching of General Surgery:

3.1 Integrate and improve online and offline teaching resources

The online offline hybrid teaching mode is not the online and offline two parallel and non interactive teaching methods, but the organic integration and positive integration of the two teaching methods. Teachers can flexibly use online and offline teaching methods on the basis of fully preparing textbooks and students. For example, in online and offline teaching, teachers can actively use multimedia technology to present the excellent online teaching resources related to this lesson collected in the pre lesson preparation to students, especially those surgical operation experiments that are intuitively expressive but difficult to present in offline classes can be displayed in the form of micro lessons, which not only enhance students’ interest in learning, but also deepen students’ understanding of the teaching content of this lesson. For another example, teachers can also actively use some modules in online teaching resources, such as homework column, comment column, exercise column, to interact with students, strengthen the communication between teachers and students, students and students, so that students can improve their learning effect in mutual communication. In addition, teachers can also rely on the compatibility of the online platform to integrate the learning before, during and after class, so that students can fully consolidate the teaching content.

3.2 Actively improve teachers’ mixed teaching ability

One of the key factors affecting teaching quality is the comprehensive quality of teachers. To carry out the teaching activity of “General Surgery” with the online and offline mixed teacher model puts forward higher requirements for the comprehensive quality of teachers. In the mixed teaching mode, teachers should grasp two identities: one is the identity of developer and designer of online teaching resources. The information age requires teachers in the new era not only to be the master of their own professional knowledge, but also to master modern information technology skillfully, be able to use various digital education cloud platforms skillfully, and have the ability to screen excellent teaching courseware from numerous and complex teaching resources, and also have the ability to record teaching videos by themselves. One is the identity of organizer and guide of students’ learning behavior. Under the teaching concept of “student-centered”, teachers should help students become the main body of learning activities. By constructing rich classroom teaching forms, teachers can enhance students’ learning initiative and guide students to learn knowledge independently with rich, colorful, flexible and vivid teaching atmosphere.

3.3 Improve students’ adaptability to mixed teaching

On the basis of putting forward requirements for teachers’ comprehensive quality, online and offline hybrid teaching mode also requires students to constantly enhance the subjective initiative of autonomous learning. Teachers should actively guide students to improve their interest in learning and actively adapt to this new learning model. To this end, teachers should give full consideration to the learning basis and learning characteristics of vocational college students, make reasonable arrangements for the selection of online and offline hybrid teaching mode and teaching content, strengthen communication and exchange with students, and actively find teaching forms that students are interested in, so as to enhance students’ learning initiative and promote the online and offline hybrid teaching mode to achieve effectiveness as soon as possible.

4. Conclusion

In a word, the traditional classroom teaching form is no longer the only teaching channel. Online teaching based on cloud classroom breaks through the limitations of teaching time and space, making the teaching form more flexible and vivid, and effectively improving the teaching effect. The hybrid teaching mode organically integrates online and offline teaching methods, which can effectively promote the completion of teaching objectives.

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