

Research on the application of online open course “Preventive Medicine” of clinical medicine major in higher vocational college based on job competency

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Abstract: The article discusses in detail the research on the application of the online open course of Preventive Medicine in the clinical medical specialty of higher vocational colleges. Aiming at the current educational status of the clinical medicine specialty in higher vocational colleges, the article emphasizes the importance of improving students' job competence. In order to achieve this goal, the application practice of the online open course in the key aspects of course design, implementation, management and evaluation was systematically analyzed. The results of the study show that through the introduction of online open courses, not only can it effectively improve students' learning interest and classroom participation, but also significantly enhance their sense of independent learning and teamwork ability. More importantly, this teaching mode has a positive effect on students' job competence. The research results of the article not only provide a strong theoretical support for the educational reform of the clinical medicine specialty in higher vocational colleges, but also provide valuable references for the research and practice in related fields, which is expected to promote the overall improvement of teaching quality and students' learning effect.

1. Introduction

With the rapid development of information technology and the in-depth promotion of educational reform, online open courses, as a new type of teaching mode, have gradually received widespread attention and application. As an important field for cultivating talents in primary health care service and public health management, the teaching quality of its Preventive Medicine course and the learning effect of students are of great significance for cultivating students' job competence in the clinical medical specialty of higher vocational colleges. The article aims to discuss the implementation of the online open course of Preventive Medicine in the clinical medicine specialty of higher vocational colleges, with a view to providing reference and learning for the research and practice in related fields.

2. Research background and significance

2.1 The current situation of clinical medical specialty education in higher vocational colleges and universities

In recent years, higher vocational college clinical medical specialty education has made great progress in China and become an important part of medical education. However, there are many problems and challenges in its education status. With the rapid development of medical science and technology and the increasing demand for medical care, the clinical medical specialty of higher vocational colleges and universities is faced with the dilemma of strained educational resources and insufficient teachers. This has led to the difficulties of some institutions in meeting the needs of industry development in terms of curriculum and practical teaching. The comprehensive quality training of higher vocational college clinical medical specialty students needs to be strengthened. At present, some colleges and universities pay too much attention to the teaching of professional knowledge and neglect the comprehensive quality of students and the cultivation of innovation ability, which makes it difficult for students to adapt to the needs of future medical practice. There is also a certain lag in the internationalization and informatization of higher vocational colleges' clinical medical education, which makes it difficult to connect with the international advanced level.

2.2 Job competency theory and its application in medical education

As an emerging human resource management concept, job competency theory has gradually been introduced into the field of medical education. The theory emphasizes that an individual's performance in a specific position is closely related to the knowledge, skills, abilities and other personality traits he or she possesses. In medical education, the application of job competency theory is of great significance ^[1]. Job competency theory provides a clear training goal for medical education. Medical education aims to cultivate medical talents with solid medical knowledge, good clinical skills and excellent professional quality. The theory of job competence requires that medical education should not only focus on the teaching of specialized knowledge, but also focus on cultivating students' clinical practice ability, interpersonal skills, teamwork ability and other comprehensive qualities, so as to ensure that students can be competent in various positions in future medical practice.

2.3 The development of online open courses and its impact on medical education

With the rapid development of information technology and the popularization of the Internet, online open courses have gradually emerged as a new type of teaching mode and have had a profound impact on medical education. Online open course breaks the limitations of time and space and provides broader teaching resources for medical education. Traditional medical education is often restricted by time and space, and students need to receive teaching at a fixed time and place. Online open courses, on the other hand, break this limitation, and students can access high-quality teaching resources through the Internet anytime and anywhere for independent learning and interactive communication. This not only improves students' learning efficiency and learning experience, but also provides students with richer learning options.

3. Preventive Medicine Online Open Course Design

3.1 Course objectives and positioning

In the construction of the online open course of Preventive Medicine for higher vocational college clinical medicine majors, the course objective and positioning is a crucial link. The course objectives need to clearly reflect the characteristics of higher vocational college clinical medical specialty education, that is, focusing on the cultivation of practical skills and the shaping of professionalism^[2]. Specifically, the course objectives should cover the basic theories, methods and skills of preventive medicine, and at the same time emphasize the combination of clinical practice and public health services in order to improve students' comprehensive quality and job competence. The positioning of the curriculum should be closely related to the actual needs of the clinical medical specialty of higher vocational colleges and oriented to meet the needs of the society for medical talents. The curriculum should be located in the cultivation of professionals with basic knowledge and skills of preventive medicine, who are capable of primary health care and public health management. For this reason, the curriculum should be closely related to the development trend of the industry and job requirements, and constantly update and improve the teaching content and teaching methods.

3.2 Course content construction

The course content construction of the online open course “Preventive Medicine” of the clinical medical specialty of higher vocational colleges needs to follow the principles of systematicity, practicality and foresight. The course content should reflect the discipline system of preventive medicine, including the basic theory, methods and skills of preventive medicine. The course should emphasize the combination of theory and practice, and introduce rich cases and practical operation links to improve students' practical ability and comprehensive quality. The content of the curriculum should be closely related to the actual needs of the clinical medicine specialty of higher vocational colleges, focusing on cultivating students' job competence^[3]. To this end, the curriculum needs to focus on the actual needs of primary healthcare services and public health management, and introduce relevant medical knowledge, skills and policies to improve students' professionalism and practical ability. The curriculum should also focus on cultivating students' innovative thinking and teamwork ability to meet the development needs of the future medical field.

3.3 Teaching methods and means

In the online open course of Preventive Medicine for higher vocational college clinical medicine majors, the choice of teaching methods and means is crucial to improving teaching effect and students' learning experience. Teaching methods should focus on students' subjectivity and participation, and adopt inspirational and inquiry teaching methods to stimulate students' learning interest and enthusiasm. Teaching methods should also focus on the combination of theory and practice, through case analysis, practical operation and other ways, so that students can better master the basic theory, methods and skills of preventive medicine. Teaching methods should make full use of modern information technology tools, such as online teaching platforms and multimedia teaching resources, in order to improve the teaching effect and students' learning experience. Through the online teaching platform, teachers can realize real-time interaction and communication with students and answer students' questions and doubts in time. Multimedia teaching resources can provide students with rich learning materials and cases, making the learning process more vivid and interesting.

4. Preventive Medicine Online Open Course Implementation

4.1 Teacher team construction

In the process of implementing the online open course of Preventive Medicine in the clinical medical specialty of higher vocational colleges, the construction of the faculty is a key factor in guaranteeing the teaching quality and teaching effect. Teacher team construction needs to clarify the standards and requirements for teacher selection ^[4]. Teachers should have profound theoretical knowledge of preventive medicine, rich clinical practice experience and good teaching ability and information technology application ability. Teachers should also have a high degree of responsibility and dedication, and be able to actively devote themselves to the construction and teaching of online open courses. Strengthening teacher training is an important way to improve the quality of the faculty. In view of the characteristics and requirements of online open courses, teachers should receive relevant training, including training in the use of online teaching platforms, the production and integration of teaching resources, and the innovation of teaching methods and means. Through training, teachers can better master the teaching skills and methods of online open courses and improve the teaching effect and students' learning experience.

4.2 Teaching Management and Evaluation

In the implementation process of the online open course of Preventive Medicine for clinical medicine majors in higher vocational colleges, teaching management and evaluation are important means to ensure teaching quality and teaching effect. The improvement of teaching management system is the foundation of teaching management. A clear teaching management system should be formulated, including regulations on teaching plan, syllabus, teaching schedule and so on, in order to ensure the standardization and orderliness of the teaching process. Diversified learning evaluation mechanism is the key to guarantee teaching quality. The learning evaluation of online open courses should focus on the combination of process evaluation and result evaluation, including the evaluation of students' learning attitude, participation, completion of assignments, test scores and other aspects ^[5]. It should also focus on the evaluation of students' practical ability and comprehensive quality to comprehensively reflect students' learning effect and job competency level.

4.3 Students' learning experience and feedback

In the implementation process of the online open course "Preventive Medicine" in the clinical medical specialty of higher vocational colleges and universities, students' learning experience and feedback is an important basis for assessing the teaching quality and teaching effect. Students' learning experience is one of the important indicators of teaching quality. Online open courses should provide rich learning resources and convenient learning paths to meet students' learning needs and improve learning effects. The online teaching platform should have a good user experience, such as friendly interface, easy operation, quick response, etc., in order to improve students' learning experience and learning satisfaction. Students' feedback is an important basis for improving teaching. By collecting and analyzing students' feedback, it is possible to understand students' satisfaction with the course, their evaluation of teaching methods and tools, and their views on teaching content and teaching effectiveness ^[6]. These feedbacks can help teachers identify problems and deficiencies in teaching and provide directions and suggestions for teaching improvement.

5. Assessment of the Effectiveness of Online Open Course in Preventive Medicine

5.1 Course completion rate and learning effect

Course completion rate and learning effect are important standards to measure the effectiveness of the implementation of the online open course of Preventive Medicine for clinical medicine majors in higher vocational colleges. Course completion rate is an intuitive indicator reflecting students' learning attitude and participation. A high completion rate means that students have high interest and motivation in this course, and are able to continuously participate and complete the learning tasks. The course completion rate also reflects the rationality and attractiveness of the course design, which can effectively attract and maintain students' attention.

In the assessment of learning effectiveness, multiple dimensions should be considered. On the one hand, students' mastery of course knowledge can be assessed by quantitative indicators such as students' homework grades and test scores. On the other hand, qualitative evaluations such as students' practical performance and clinical internship feedback can also be combined to comprehensively assess students' ability to apply knowledge and practical skills. Non-cognitive factors such as students' learning attitudes, motivation, and learning strategies should also be included in the assessment of learning outcomes to reflect students' learning more comprehensively.

5.2 Student Satisfaction Survey

In the implementation of the online open course “Preventive Medicine” in the clinical medical specialty of higher vocational colleges, student satisfaction survey is an important way to assess the quality of the course and teaching effect. Student satisfaction not only reflects students' overall evaluation of the course, but also reflects the degree of students' recognition of the teaching content, teaching methods, teacher quality and other aspects. Conducting student satisfaction surveys is of great significance in understanding students' learning needs and expectations, optimizing course design, and improving teaching quality. In order to obtain accurate and comprehensive student satisfaction data, a scientific and reasonable questionnaire should be designed. The content of the questionnaire should cover all aspects of the course, including teaching content, teaching methods, teacher quality, learning support and so on. It should also focus on the easy-to-read and easy-to-answer nature of the questionnaire to ensure that students can easily understand the content of the questionnaire and quickly complete it.

5.3 Assessment of the Effect of Improving Job Competence

The ultimate goal of the online open course “Preventive Medicine” for higher vocational colleges majoring in clinical medicine is to improve students' job competence, so that they can be competent in primary health care services and public health management. The evaluation of the effect of job competency improvement is a key indicator of the effectiveness of the course implementation.

The evaluation of the effectiveness of job competency improvement should cover multiple aspects. The effectiveness of the program in improving students' job competency can be assessed by comparing the level of job competency before and after the students' participation in the program. This can be done through questionnaires, practical operation assessment, etc. Attention can be paid to students' performance in clinical internships and public health practice to understand their application ability and comprehensive quality in real work. Feedback from employers can also be collected to understand the degree of students' adaptation to the position and the employers' satisfaction with the students.

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