

# To explore the community theory application research progress in medical education

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**Abstract:** Inquiry community theory model is a kind of online learning and offline teaching, process oriented effective teaching theory model, abroad has been widely used in medicine, nursing, pharmacy, radiology and other medical education, domestic is applied in pharmacology, obstetrics and gynecology nursing, medical education application inquiry community theory model, can effectively improve the quality of classroom teaching, Stimulate students' interest, improve the learning effect, train students' high-level thinking, promote more students to take the initiative to participate in the learning activities, in order to improve the medical education environment and student participation has a very important significance.

**Key words:** exploring community theory; Medical education; Applied research

With the continuous deployment of the national education digitization strategy, it is an important trend to develop "Internet + education" and promote the digital transformation and intelligent upgrading of medical education. Blended learning refers to the learning style that combines face-to-face teaching and online learning. The inquiry community theory model provides a new learning paradigm for blended learning and is widely applied and studied in higher education, but the research in the field of medical education is still limited.

## 1. An overview of the Inquiry Community theory model

The Inquiry Community Theory model, co-created by Randy Garrison and three other scholars, constructs a theoretical framework for online learning and is widely used in blended teaching models. It is composed of three elements: social existence, cognitive existence and instructional existence. It is also one of the most common theoretical frameworks applied in the field of digitalization in recent years. The theoretical model of inquiry community is mainly based on the above three core elements. Among them, cognitive presence refers to the problem or task that inspires students to actively participate in the inquiry community, actively cooperate and explore independently, integrate all kinds of useful information to solve the problems encountered, strengthen cognition through constant communication, and improve students' critical thinking ability. Social presence refers to students using the media to show their own personality in environmental exploration, and applied to interactive communication to develop interpersonal relations. Instructional presence refers to teachers' planning and guidance of cognitive and social processes, including curriculum content design, rational use of media, and promotion of interactive communication. The purpose is to complete the construction of students' basic cognition and skills, so as to achieve the learning effect and the final training of comprehensive skills. The existence of consciousness is the basis for the formation of meaningful cognition, and the existence of knowledge is the basis for the realization of the relationship between the existence of consciousness and education as a whole. Therefore, the whole society should deal with the relationship between the existence of consciousness and education knowledge and the whole society, and the concepts of the three kinds of consciousness relations overlap, influence and connect with each other. Only when learning existence, social existence and knowledge existence intersect and overlap each other at a deep level, can effective mixed education be realized. The perceived sense of value is the ability of students to establish and prove their value through continuous dialogue and reflection. Trigger situation: teachers provide ideas or questions that inspire students about prior knowledge, and induce students to participate in the inquiry. Thought inquiry: Researchers use the methods of brainstorming, questions and data exchange to complete thinking iteration in critical thinking and communication, and explore the phenomenal nature of ideas. Method integration: Researchers describe, link and integrate the ideas or problems they are thinking about in the process of continuous research methods, so as to establish a multi-dimensional strategy to deal with problems. Problem solving: Students may use direct or indirect practical activities to overcome difficulties or solve problems. Social presence: The ability of students to project their personal characteristics into a community of social inquiry through the medium of communication, showing their true selves socially and emotionally. Emotional expression: the expression of self-emotion in language or symbols, the use of humor to respond to other study partners, and the display of learning details or strengths and weaknesses. Open interaction: the interactive behavior of asking, supporting, thanking, quoting and relaying peer information among community members. Community cohesion: To develop and maintain their sense of community by providing a learning environment with an identity. Teaching presence: teachers design, promote and guide students' knowledge activities and social problems. Enhancement methods: design course content, organize teaching activities, guide and supervise students' learning activities, verify students' learning objectives, and feedback their learning results.

## 2. Research on the current situation of medical education in Chinese higher vocational colleges

### (1) Insufficient attention of leaders

The leaders of teaching management departments in some higher vocational colleges in China lack the understanding of medical education and think that the existence of medical education is dispensable. They do not realize that medical education is the key to innovate the health service system and promote community health services. They do not realize that medical education plays a very important role

in satisfying people's growing health services and improving people's health level. At present, the medical education courses in domestic colleges and universities are not perfect.

(2) Lack of teaching team

Since the start of medical education in our country, professional medical teachers have not been built yet. Combining with the actual needs of current medical education, the teaching staff team can be divided into the theoretical teaching staff team of general practice and the community theoretical teaching staff team. The composition of theoretical teachers of general practice is mainly based on the knowledge related to preventive medicine. The above teachers have not received systematic training in general medicine, and also lack certain practice. At present, there are few general practitioners who have been systematically trained in professional practice. Therefore, medical practice teaching activities are mainly undertaken by grassroots doctors who have been trained in post. There are certain deficiencies in both service ability and teaching experience of the teaching staff.

(3) Teaching materials and teaching design have not yet been perfected

Although domestic scholars have compiled a large number of teaching materials for medical education, most of them are for general medical education and training. Up to now, the majority of students in Chinese medical colleges and universities are still in the exploratory stage for general medicine education, and the teaching materials and teaching design have not been perfected, which is also an important factor restricting the development of medical education.

(4) The teaching practice base is not perfect

Medical education practice is an important part of medical education, and the quality of practice base in the community directly affects the effect of medical education. Currently, the construction of community practice bases in China has not been standardized, and the lack of high-quality doctors construction of medical activities, the quantity and quality of the base setup can not meet the actual needs of current medical education.

### 3. Explore the application of community theory in medical education

(1) Teachers' preparation

Lin Lin applied the inquiry community theory model in the teaching of community nursing to design learning objectives, learning tasks, evaluation criteria and learning resources of practical teaching activities. The students' individual experience and group cooperation experience are combined. Preparation for teaching resources. Mainly shoot teaching-related videos, health education videos within the community, interviews with newborn families in the community, community health service videos, etc., but also add some resource courseware (such as epidemiology and community disease management, community cognitive interviews, questionnaires, etc.) to provide reference for students' pre-class preview. Involving the latest literature and exercise question bank of the course, to promote the discussion between students, can also add teachers online question answering section, timely reply to students in the process of learning problems. Dai Chen uses this model for hybrid teaching in the pharmacology teaching. Through online knowledge teaching, part of the theoretical knowledge teaching is presented in the online teaching mode. Before opening the live broadcast, the teacher encourages students to preview what they have learned in this class in a specific section. After the end of the course, the teaching existence and social existence are significantly improved, and students can obtain high-quality learning platforms and resources, and form a more complete professional knowledge framework based on them. In the teaching of obstetrics and gynecology nursing, Wang Lu uses this theoretical model to guide practical teaching, and creates inquiry learning community before class. The course arrangement mainly includes watching teaching videos, family interviews, reflection modules, case research and other contents. Watching teaching video refers to watching the internship video in the course center. Family interview requires nursing students to select a family member for a family visit, and in accordance with the requirements of family assessment, understand the specific situation of the interviewed object's physical and mental health, family composition and other aspects, so as to make a reasonable assessment of family members. Conduct family education propaganda for the existing problems in the family. At the same time, students are required to record the process of home visit. The reflection sharing module is for students to write a reflection report based on the experience of watching internship videos and visiting families, and share in the group what they have gained and what needs to be improved in the future. In the part of case discussion, the teacher gives the case, and each group member will have an online discussion at the specified time according to the case, and the teacher will participate in the discussion and give guidance. The nursing students integrated their knowledge according to the online discussion and the teacher's guidance. Finally, the teacher organized the nursing students into online groups to make a comprehensive report, including the main health information of the patients in the case, the health problems involved in the case and the proposed health education plan, and asked the nursing students to simulate the health education of the patients in the way of role playing. Teachers answer questions, comment and give guidance before, during and after practice activities to meet the individualized needs of students.

(2) Carry out online teaching activities with THEOL platform

The blended teaching mainly relies on the physical classroom and the online learning environment mediated by network communication technology to realize the communication and interaction between teachers and students and between students. The integrated system of online course, also known as the teaching system, is an important technical platform for online teaching and learning and also a necessary condition for teachers to carry out blended teaching. WK looking at the integrated system of courses at home and abroad, the products widely used at present mainly include: THEOL integrated online course system developed by Beijing Tsinghua School of Education and Information Technology, Beijing Serbibo Information Technology Co., LTD Blackboard system developed by the company

and Moodle teaching system developed in Australia according to the new constructivism teaching ideas. In order to ensure its scientificity and effectiveness, a special team has been set up to complete the construction of obstetrics and gynecology nursing courses on the network teaching platform. According to the division of labor, the team members are divided into the following groups: First, the resource provision group is composed of two full-time teachers with more than 10 years of teaching experience and associate professor or above. They are mainly responsible for the provision of unit teaching content and the update of learning resources (including micro videos, the latest domestic and foreign guidelines and clinical classic teaching cases, etc.). Second, platform design group: it is composed of all the teaching teachers of the undergraduate program. It is mainly responsible for the overall planning of the platform and the specific program design of the course objectives of each unit. Third, network platform management and maintenance group: young teachers with more than three years of professional training, bachelor degree or above and modern teaching information section staff of the school for part-time, mainly responsible for the daily management of the school network platform, the completion of student learning task monitoring and problem solving work.

In the design of teaching activities, mainly based on the category of cognitive presence in the model of inquiry community theory (trigger event, exploration, integration and solution), to improve the construction of online open courses. The key link lies in “consciously integrating face-to-face and online learning”, that is, teachers create online inquiry learning communities according to teaching objectives, design pre-class preview projects (micro-video viewing, unit self-testing, online interactive discussion, preview report submission, etc.), and publish learning task lists online one week before class as trigger events to stimulate students to enter online learning. Guide students to participate more actively in social interaction and communication; When students solve problems or complete social tasks through exploration, integration and application, continuous reflection and dialogue to promote the development of their social cognition.

#### 4. Concluding Remarks

In a word, through the combination of practical life, student practice investigation, live video watching, group activities and other forms, to understand the way to explore the application of community theory in medical education, so that students can feel the important value of exploring the community theory model in practical application in the process of practical operation, and promote students to master the corresponding professional knowledge and practical skills. Effectively enhance students' interest in participating in learning, and obtain good teaching results.

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