

Discussion on the training platform and path of medical talent training under school-enterprise cooperation

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ABSTRACT. *The current common problems facing humans such as population aging, tumors, and fatal infectious diseases put forward new requirements for the training of medical talents. This article starts with analyzing the problems in the talent training model of medical schools in my country. Combining with the development of education informatization and innovative medical talent training model, we put forward countermeasures and suggestions for the construction of medical personnel training platform and path under the mode of "school-enterprise cooperation"*

KEYWORDS: *Medical talents; school-enterprise cooperation; path*

With the rapid development of the social economy and the deepening of the medical system reform, the people's demand for medical and health services increasing. The existing medical education and talent training models have significantly lagging behind the reform of the medical and health system and the people's awareness of high-level medical care. Cultivating medical talents is a profound proposition of the times that my country's higher medical education faces and needs to be solved urgently. Driven by the rapid development of vocational education in my country, school-enterprise cooperation has gradually become an important development model for higher vocational colleges. More and more scholars have begun to study school-enterprise cooperation and have achieved fruitful results. However, the lack of enthusiasm of enterprises in the pharmaceutical industry, and the lack of incentive policies and funding support from local governments have affected the in-depth advancement of school-enterprise cooperation. Studying how to build a medical talent training platform under the "school-enterprise cooperation" model and exploring training paths are of great significance to the training of medical vocational colleges.

1. Problems in the training of medical talents

1.1 Lack of "double-qualified" teachers in medical vocational colleges

There are two main sources of "dual-professional" teachers in medical vocational colleges, one is to hire hospital experts and senior technicians from pharmaceutical factories, and the other is graduates from medical colleges and universities^[1]. They are also facing the problem of how to combine the medical practice ability of clinicians or hygienists with the teaching ability of teachers. The particularity of medical education determines that "double-qualified" teachers must take into account these two qualities. From the survey, it is found that most of the "dual-teacher" teachers in medical higher vocational colleges have insufficient clinical experience of full-time teachers in the school, while physicians and pharmaceutical technicians with rich clinical experience lack teaching experience.

1.2 The professional setting is out of touch with market demand

The education of medical vocational colleges is in a period of development, and some of them are upgraded from secondary vocational colleges. In the process of running a school, it is necessary to continuously adjust the curriculum to meet the needs of society and talent training. However, as far as the current professional settings of various medical vocational colleges are concerned, although the school will close or add some specialties according to the situation, it still cannot fully match the needs of hospitals and pharmaceutical companies. In addition, in the teaching curriculum of talent training, medical schools generally have the problem of low integration of theoretical courses and clinical practice. Due to the lack of information support, some special courses at the forefront of international medical research cannot be opened or the teaching effect is general after opening^[2]. As a result, basic teaching and clinical practice cannot be reasonably connected, which limits the innovative development of medical talent training models. The imperfect professional curriculum of medical vocational colleges puts medical vocational students in a disadvantageous competitive position when they are employed. Many students also have a low sense of identity with their majors. When participating in training and internships, they do not have a serious study attitude, but have other ideas.

1.3 The existing medical talent training model is too single

Affected by factors such as teaching content, teaching conditions, teacher quality and educational philosophy, and evaluation methods, the existing medical talent training model lacks diversity, and contextual teaching based on the network lacks infrastructure investment and education policy support^[3]. In the process of transitioning from traditional teaching to information-based teaching, most medical schools did not pay enough attention to it and did not actively introduce successful models with high reference value. Although some colleges and universities try early

clinical practice in the early stage of teaching, and finally return to clinical teaching methods, they still cannot effectively solve the boring and mechanical problems of school classroom teaching, so that the traditional teaching methods are still used in clinical teaching. The training model is too single , and does not conform to the development of information teaching, which cannot effectively stimulate students' learning enthusiasm.

2 Building an innovative medical talent training platform

2.1 Reflect the concept of innovative education in training goals

The training target of medical talents plays an important guiding role in the training mode of medical talents, which determines the direction and specifications of talent training. With the globalization of economy and the development of medical science and technology, the common problems faced by all mankind, such as population aging, the emergence of new diseases, ecological environmental protection, have put forward new requirements for the training goals of medical talents^[4]. Ensure that the trained medical talents meet the following requirements: Solid medical skills combined with extensive knowledge. Positive life value orientation and noble dedication to medical science. Have a pioneering spirit and the ability to learn for life. Innovative medical talents with global awareness, medical and related knowledge structures for international communication, and cross-cultural communication skills, who can participate in international competition in the process of economic globalization.

2.2 Reflect the content of innovative education in the syllabus

The syllabus is not only the basis for talent training, but also stipulates the knowledge structure of talent training and the specifications and direction of talent training. A scientific syllabus is a prerequisite for the implementation of innovative education. Only by formulating a different syllabus suitable for innovation education can the direction of innovation education be guaranteed and satisfactory results can be achieved. A syllabus that meets the requirements of medical education in the new era should have 4 characteristics: One is to go beyond the scope of the syllabus applicable to all students. The second is to fully consider the characteristics of students' interests. The third is consistent with the ability of students to master knowledge. The fourth is to encourage students' enthusiasm to explore the nature of the subject.

2.3 Highlight innovative education in curriculum and teaching content

Innovative education in medical colleges and universities should be based on professional training goals and medical education international standards, and meet

the needs of the coordinated development of students' knowledge, ability and quality, to build an overall optimized comprehensive medical curriculum system. One is to increase comprehensive and design experiments and reduce confirmatory experiments in basic medical experimental teaching. While using experimental courses to strengthen theoretical teaching, it also cultivates medical students' practical ability and innovative thinking ability. Second, in clinical practice teaching, while cultivating students' clinical thinking ability, they also cultivate students' operational ability, pioneering spirit and the ability to communicate with patients to obtain information. The third is to set up some courses that can specifically train the creative ability of medical students.

2.4 Pay attention to the cultivation of innovative spirit in teaching methods

The textbook mode of college students sitting in classrooms all day and studying their predecessors should be changed, and classroom teaching in which teachers only teach and students passively accept should not be continued. In terms of teaching methods, actively adopt problem-based learning methods, case-side teaching methods, heuristics and discussion teaching methods, In the teaching process, students are allowed to engage in learning activities similar to scientists discovering truth, so that students can master the methods of learning, discovering and solving problems, and fully mobilize the initiative of students in learning^[5]. New teaching methods not only requires teachers to ask questions reasonably, but also requires students to show their individuality, and encourages students dare to question and not superstitiously believe in authority, books and existing conclusions. Students should fully express themselves, enhance self-confidence, give full play to the ability of creative thinking, and actively use the theories and experiences they have learned to answer and solve problems that they are not familiar with or understand, so as to enable students to continuously enhance their insight, imagination, and foresight.

3. Path exploration of talent training model in medical schools

3.1 Consolidate the foundation for the construction of medical education information network resources

Medical colleges and universities should establish and improve the overall management mechanism and resource operation system of education informatization, strengthen the in-depth integration of "information technology" and medical education and teaching, and further improve the leading group and management organization of education informatization. Schools must solve various specific problems in the process of education informatization construction and application, and achieve the full integration of construction and application in the development process of medical education informatization, so as to ensure that medical education informatization work can be carried out in an orderly and stable manner in teaching. In addition, the school should also optimize the infrastructure, combining the actual

investment in hardware and software construction. The first is to establish a shared data resource center based on cloud computing. Establish a highly integrated school shared data center, purchase server groups and big data storage equipment, and use virtualization technology for unified distribution and management. Ensure the standardized docking between the data center platform and each system resource, and realize the data sharing and exchange between heterogeneous information systems at all levels. The second is to establish a general medical education resource database platform that can provide services for the subsequent development of various application systems, and can provide schools with various levels of resource information and data analysis. The third is to expand the development and application of infrastructure platforms. The school needs to enrich and expand the school's informatization network facilities according to the new requirements of medical education teaching resources and educational informatization applications, and build projects including display platforms, video interactive platforms, mobile campus cloud service platforms and wired and wireless integration as appropriate to strengthen basic support platform application, expand the development and application of infrastructure platform. Schools should apply innovative medical teaching models and concepts, explore the use of traditional classrooms, online teaching micro-classrooms, video interactive large classrooms and educational cloud classrooms combined hybrid teaching mode, give full play to the leading role of teachers in the education and teaching process and stimulate students' initiative and enthusiasm

3.2 Fully integrate high-quality teaching resources and build a three-dimensional medical education model

In order to enhance students' clinical medical diagnosis and treatment training capabilities, the school should develop and introduce clinical education and teaching resources, and strengthen the construction of a simulated standardized patient system platform, play the role of education in the training of students' clinical diagnosis and operation, train students' clinical medical skills, broaden students' knowledge horizons, and achieve an effective combination of medical knowledge and clinical practice. School should build an intelligent platform with interactive and open features based on intelligent applications, and provide personalized services according to different roles. provide an open teaching model of co-construction, sharing, interconnection, and give full play to the intelligent role of the system platform. establish a shared data center based on cloud computing to provide rich educational and teaching resources. School should encourage the entire school's faculty, staff and students to participate together, build and share all high-quality teaching resources and quality resources, and truly realize the reasonable collection, planning, distribution and utilization of information resources and information services. Schools should build a comprehensive digital library service system, and gradually establish a digital library service system covering the whole school, so that teachers and students can seamlessly enjoy the services provided by the digital library 24 hours a day. At the same time, the school should strengthen the construction of document resources, establish and improve the library integrated

management system with procurement, cataloging, collection, circulation, and purchase a special database with medical characteristics, realize interlibrary loan and document delivery in domestic universities, and explore a regional and representative medical digital resource co-construction and sharing mechanism. In addition, it is necessary to integrate the existing electronic resources of the library such as e-books and various databases to provide in-depth information navigation services.

3.3 Relying on professional job specifications jointly to plan school-enterprise cooperation and education

Higher vocational colleges must strengthen all-round cooperation with related industries and enterprises, try their best to fill gaps in cooperation fields or strengthen those weak links in cooperation, and strengthen the construction of guarantee conditions for school-enterprise cooperation. The first is to promote the construction of the school's "dual-professional" team, they should strengthen the introduction of high-level talents, and improve the academic level of full-time teachers. In order to solve the current disconnection between theoretical teaching and practical training, the school should formulate a complete set of on- and off-campus training mechanisms to enhance teachers' clinical practice capabilities. Medical vocational colleges should start from mobilizing the enthusiasm of teachers, improve related teacher incentive mechanisms, and give priority to teachers who take the initiative to study and exercise in hospitals and pharmaceutical factories in the promotion and evaluation of professional titles. The second is to improve the training conditions in the school, according to the requirements of the hospital's departments and ward settings, rationally layout the nursing training base, acupuncture and bone injury base, pharmacy, then restore the real environment of the hospital, and begin to carry out standardized construction, so that clinical medicine and nursing students can complete the training of medical and nursing skills in school. Higher vocational colleges have to establish multimedia display classrooms in the training base, such as plan teaching areas, mark exhibition boards, drug production processes display area, and safe operation specifications, to facilitate students' independent learning. They should introduce modern medical management concepts to create a professional atmosphere in the pharmaceutical industry, and conduct industry-based management of clinical training methods, and standardize the practical activities of teachers and students. The third is to strengthen the cultivation of students' medical ethics and primary medical service awareness. The school should carry out more campus activities, create a learning campus culture, and regularly carry out educational activities and quality development activities with the theme of improving medical ethics. They need to create a good cultural atmosphere to strengthen students' ethical and moral quality and grassroots service awareness, and promote the improvement of the quality of medical talents.

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