

# *Investigation on the status quo of post competence of students majoring in clinical medicine in higher vocational colleges*

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**Keywords:** Clinical Medicine; post competence; professional quality; teamwork

**Abstract:** This paper discusses the problems of post competence of clinical medical students in higher vocational colleges, and puts forward some concrete suggestions. Firstly, the article analyzes the students' deficiencies in the disconnection between professional knowledge and practice, the non-standard operation of clinical skills, the lack of communication and team cooperation ability, and the need to improve their professional quality. Then, some suggestions were put forward, such as strengthening the combination of theory and practice, standardizing clinical skills, improving the ability of communication and team cooperation, and strengthening the education of professional quality. These suggestions aim to improve the comprehensive quality of clinical medical students in higher vocational colleges, so as to meet the needs of future clinical work and improve the quality of medical service.

## **1. Introduction**

With the rapid development of the medical profession, the comprehensive quality and post competence of the clinical medical students have been put forward higher requirements. As an important force in the future medical profession, it is very important for the students of clinical medicine in higher vocational colleges to improve their post competence. However, there are still some problems in students' professional knowledge, clinical skills, communication, teamwork and professional quality. The purpose of this paper is to analyze these problems deeply and put forward some pertinent suggestions in order to provide reference for clinical medical education in higher vocational colleges and train more excellent clinical medical talents.

## **2. Status Quo of post competence of students majoring in clinical medicine in higher vocational colleges**

### **2.1. Students' mastery of professional knowledge**

At present, the students of clinical medicine major in higher vocational colleges show a certain basic level in mastering professional knowledge. Through systematic classroom study and clinical practice, they have a certain understanding and mastery of basic medical knowledge. However, in-depth investigation and evaluation, it is found that some students' mastery of professional

knowledge is still at the superficial level, and lack of in-depth understanding and integration of the knowledge system. This is related to the time limit and curriculum of higher vocational education, which makes it difficult for students to master all the key knowledge points in a short time. In addition, the rapid renewal of the medical field also requires students to continue to learn, but the current education system is not sufficient to meet this need. Therefore, although students generally have a certain basis of professional knowledge, but in the depth and breadth still need to be strengthened, need more practice opportunities and in-depth learning to consolidate and enhance their professional knowledge. The present situation indicates that there is still room for improvement in clinical medical education in higher vocational colleges in order to train highly competent medical personnel.

## **2.2. Ability to apply clinical skills**

In the application of clinical skills, the students of clinical medicine in higher vocational colleges show a certain practical ability, but still need to improve. Although the students received systematic training in clinical skills during the school, but in practice, some students still do not appear skilled and confident. This is related to the relatively few opportunities for practice and the lack of adequate clinical experience. Therefore, in order to improve the clinical skills of students, we need to increase the practice of teaching links, provide more clinical practice opportunities, and strengthen the guidance of senior doctors. At the same time, perfect skills assessment and feedback mechanism should be established in order to detect and correct students' skills problems in time and help them better adapt to the challenges of future clinical work. Through these measures, it is expected to improve the clinical skills of clinical medical students in higher vocational colleges and lay a solid foundation for training excellent medical personnel.

## **2.3. Communication and teamwork skills**

In the aspect of communication and team cooperation ability, the students of clinical medicine in higher vocational colleges present certain foundation, but still need to be further strengthened. Teamwork in the medical field is essential, and good communication is the cornerstone of teamwork. At present, students generally realize the importance of communication and team cooperation, but in practice, some students still appear stiff, lack of self-confidence, which to some extent affects the overall efficiency of the team. In order to enhance these two abilities, schools should provide more practice opportunities to simulate clinical scenarios, so that students can learn how to communicate more effectively with team members through practice, and how to better play their part in the team. At the same time, students need to strengthen the relevant courses training, such as medical communication, teamwork skills, and so on, but also to enhance students' ability in this area of the effective way. Through these initiatives, students can help in future clinical practice to better integrate into the team, to provide patients with better medical care.

## **2.4. Professional quality and medical ethics**

In addition to mastering solid medical knowledge and skills, the cultivation of professional quality and medical ethics can not be ignored. Professional quality is not only related to personal responsibility and professionalism, but also reflects the professional respect and care for patients. Medical Ethics, as the soul of medical profession, requires doctors to be patient-centered, abide by medical ethics, protect patients' privacy, and win patients' trust and respect with noble medical ethics. Students in the campus to receive medical ethics education, doctors know the truth of benevolence. They understand that an excellent doctor, not only have exquisite medical skills to

heal the patient's body, but also have a noble medical ethics to soothe the patient's mind. However, although theoretical education is important, practical operation is more critical. Only in the real medical environment, students can deeply understand the importance of medical ethics, and its internalization into their own code of conduct. Therefore, clinical medical education in higher vocational colleges should focus on strengthening the practice of teaching links, so that students learn how to communicate with patients in practice, how to respect and protect patients' privacy, how to make decisions within the framework of medical ethics. At the same time, through case analysis, role-playing and other diversified teaching methods, can help students more deeply understand the connotation of medical ethics, and put it into their own professional behavior. In order to train a group of excellent medical talents with both professional skills and noble medical ethics, the clinical medical education in higher vocational colleges must be continuously strengthened medical ethics education. This is not only the mission of medical education, but also the responsibility of every future physician, and a solemn commitment to society. Through this kind of education, we believe we can train more medical talents with high professional quality and good medical ethics, and contribute to the cause of human health.

## **2.5. Self-learning and adaptability**

The students of clinical medicine in higher vocational colleges show great potential in self-learning and adaptability, which is very important for the developing and renewing field of medicine. With the rapid development of medical knowledge and new research and treatment techniques, students must have a strong self-learning ability to keep track of and keep abreast of the latest medical findings. At the same time, they need to be able to adapt quickly to new environments and workflows so that they can be used in future clinical practice. At present, students have generally recognized the importance of life-long learning, and demonstrated the desire for new knowledge and the spirit of active exploration. They are not only willing to update their expertise spontaneously, but also can flexibly adjust their coping strategies in the face of new clinical situations, which shows their excellent adaptability. However, to better meet future medical challenges, the education system needs to further stimulate students' enthusiasm for self-directed learning, provide more abundant learning resources and personalized learning paths. In addition, we should also strengthen the practice link, so that students in the real medical environment exercise the ability to adapt quickly and solve problems. In this way, when students enter the workplace, they will be able to more confident, calmly face a variety of medical problems, for the health of patients with more accurate and efficient medical services.<sup>[1]</sup> Through continuous self-study and rapid adaptation to the new environment, the students of clinical medicine in higher vocational colleges will grow into excellent medical talents and contribute to the development of medical cause.

## **3. There are some problems in the post competence of clinical medical students in higher vocational colleges**

### **3.1. There is a disconnect between professional knowledge and practice**

One of the core problems for the students of clinical medicine in higher vocational colleges is the obvious disconnection between professional knowledge and practice, which comes from many factors. The primary reason is the unsatisfactory curriculum and teaching methods. Although students in the classroom to absorb a large number of professional theoretical knowledge, but often only at the level of books, the lack of knowledge into actual clinical practice opportunities. If the theory of books can not be combined with practice, its utility will be greatly reduced. The lack of

practical teaching aggravates the gap between theory and practice, and the degree of satisfaction of graduates is generally low, largely because practical teaching is often limited to simple verification experiments, the comprehensive, innovative experiments and practical skills of the operation of the training courses are seriously inadequate. Such teaching methods are difficult to train students to deal with complex clinical situations. This disconnect is also manifested in the students' strangeness to the clinical environment. In school, due to the relatively limited opportunities and time for clinical practice, many students lack in-depth understanding and practical experience of the real clinical environment. When they go out of the campus, the real face of patients and complex medical situations, often feel at a loss, difficult to adapt. This strangeness not only affects their self-confidence, but also leads to unnecessary mistakes in practice. Clinical medical students in higher vocational colleges urgently need more practice opportunities and more practical teaching methods, in order to better transform theoretical knowledge into practical skills and enhance their competence in future posts. This is not only responsible for students, but also for the long-term development of the medical industry.

### **3.2. The operation of clinical skill is not standard**

The students of clinical medicine in higher vocational colleges generally have the problem of non-standard operation of clinical skills, which has become a significant weakness of their post competence. Lack of practical experience and timely guidance from senior physicians are the main reasons for this problem. Specifically, some students in the implementation of clinical skills, the operation of the missing steps, manipulation is not accurate and improper use of equipment and other issues. These irregular practices not only reduce the quality of medical services, but also pose a potential threat to patients' health. Routine procedures such as injection and blood collection, for example, can lead to discomfort and even infection if students are not skilled or miss key details, which undoubtedly increases the medical risk. In addition, non-standard practices have a negative impact on the overall efficiency and collaboration of the medical team. In a busy medical environment, every mistake breaks the rhythm of the entire team, affecting the patient's diagnosis and treatment process. To make matters worse, incorrect or inaccurate operational information can be passed around the team, leading to misdiagnosis or mistreatment. Therefore, it is very important for the students of clinical medicine to improve the standardization of clinical skills.

### **3.3. Poor communication and teamwork skills**

The deficiency of communication and team cooperation ability of clinical medical students in higher vocational colleges has aroused widespread concern in the educational circle. In the field of medical services, good communication and teamwork skills are critical to patient safety and quality of care. But unfortunately, many students in this regard there are significant deficiencies. On the level of communication, some students lack patience and empathy when communicating with patients, which not only hinders the effective transmission of information, but also deepens the misunderstanding and contradiction between doctors and patients. Patients often feel anxious because of the disease, at this time the Doctor's communication skills and attitude is particularly important. If doctors can not accurately understand the needs and concerns of patients, it will lead to the mismatch of treatment plans, which will affect the effectiveness of treatment and quality of life of patients. In the aspect of team cooperation, some students overemphasize individualism and neglect the importance of team integrity and cooperation. Health care is a highly team-dependent area in which each member plays an integral role. The lack of team awareness of students in cooperation with other medical personnel, there will be a lack of tacit understanding, the situation of their own, which will undoubtedly reduce the overall efficiency of the work, and even affect the

diagnosis and treatment of patients. Some of these problems can be attributed to the limitations of the traditional education model. In the current education system, the cultivation of students' communication and team cooperation ability has not been paid enough attention. In addition, students lack sufficient awareness of the importance of these two skills, which makes it difficult for them to use them effectively in practice.<sup>[2]</sup>

### **3.4. The professional quality needs to be improved**

The professional quality of clinical medical students in higher vocational colleges is undoubtedly the core element of their competence for future medical jobs. Professional quality is not only refers to professional skills, it is more deeply related to medical ethics, patient care and strong professional ethics. These factors together constitute the “Soft power” of health care workers, is to determine whether the long-term development of their career in the key. However, regrettably, there is still much room for improving the professional quality of clinical medical students in higher vocational colleges. In daily practice, some students lack the necessary patience and meticulous care for patients, this attitude will undoubtedly affect the patient's medical experience and treatment effect. What's more, in the face of complex medical ethical issues, some students may make improper decisions due to lack of experience or lack of mature judgment, which will not only harm the rights of patients, but also the interests of patients, it will also have a negative impact on the credibility of the medical industry. In order to improve this situation, clinical medical education in higher vocational colleges must put the cultivation of professional quality in a more important position.

## **4. Suggestions on post competence of clinical medical students in higher vocational colleges**

### **4.1. Strengthen the combination of theory and practice**

In order to improve the post competence of clinical medical students in higher vocational colleges, the first suggestion is to strengthen the combination of theory and practice. The traditional teaching mode often emphasizes on the theory knowledge imparting, but has despised the importance of the practice operation. However, clinical medicine is a very practical discipline, pure theoretical learning cannot let students really master clinical skills. Therefore, educational institutions and teachers should adjust their teaching methods and combine theory teaching with practice. For example, experimental courses can be increased to allow students to practice in a laboratory that simulates a real clinical environment. At the same time, it can also strengthen cooperation with medical institutions, provide more clinical internship opportunities for students, let them exercise their clinical skills in real-life medical scenarios. In addition, teachers can also use case analysis, role-playing and other teaching methods to guide students to actively think and solve problems in theoretical learning, and develop their clinical thinking and practical ability. Through these measures, can effectively improve the post competence of students, so that they better adapt to the future clinical work. In this way, students can not only grasp the solid theoretical knowledge, but also can constantly improve their professional skills in practice, for the future to become a qualified clinician to lay a solid foundation.<sup>[3]</sup> Strengthening the combination of theory and practice is an important reform direction of clinical medical education in higher vocational colleges and the key to improve the post competence of students.

### **4.2. Standardize the operation of clinical skills**

To standardize the operation of clinical skills is the key to improve the post competence of

clinical medical students in higher vocational colleges. Educational institutions should work closely with the medical profession to develop a set of detailed, specific clinical skills operating standards. These should cover all procedures, from basic operations to complex operations, and ensure that students are exposed to standardized operational requirements while in school. In experimental courses and clinical practice, the standardization of skill operation should be emphasized. Teachers can use simulation equipment or standardized patients to carry out practical exercises, so that students continue to hone their skills in practice. At the same time, regular skill assessment is also essential, through the assessment can be timely found and correct the students in the operation of non-standard. Doctors with rich clinical experience are invited to conduct on-site guidance. Their practical experience and professional guidance are essential for students to develop standard operating habits. By observing the actual operation of doctors, students can understand the importance of standardized operation and specific methods more directly. With the help of advanced technologies such as virtual reality (VR) and augmented reality (AR), we can simulate a more realistic clinical environment and let students practice in a safe environment repeatedly until they master the standard operation. In addition to the standardization of skills, we should also focus on training students' professional quality and rigorous attitude. By means of case teaching and ethical education, students are guided to realize that standardized operation is not only related to the health and safety of patients, but also the embodiment of professional ethics of doctors. The standardization of clinical skill operation needs to start from many aspects, it includes establishing unified standards, strengthening practical training and assessment, inviting senior doctors to guide, using modern science and technology to assist teaching and training rigorous professional attitude. The joint implementation of these measures will help to improve the post competence of clinical medical students in higher vocational colleges and lay a solid foundation for them to become qualified clinicians in the future.

### **4.3. Improve communication and teamwork skills**

It is very important to improve students' ability of communication and team cooperation in clinical medical education of higher vocational colleges. These two abilities are essential core qualities for medical students in their future career, and have a profound impact on improving the quality of medical services and patient satisfaction. To achieve this goal, you need to start from multiple dimensions. First of all, educational institutions should set up a communication and team-related courses, through theoretical learning and practice, to help students master effective communication skills and methods of teamwork. In the course, we can introduce the teaching methods of role-play and simulated scene, so that the students can practice communication and cooperation in simulated medical environment. Second, students are encouraged to participate in team projects and group discussions to develop their team spirit by working together to complete tasks and solve problems. In the process, students learn how to work with others, develop their strengths, and deal with conflicts and disagreements within the team. Inviting medical teams with rich clinical experience to share practical experience in communication and collaboration is also an effective way to enhance students' ability in this area. By listening to professionals, students can gain a more intuitive understanding of the specific requirements of communication and teamwork in the healthcare industry, and learn valuable lessons from them. Finally, teachers establish an effective feedback mechanism to regularly evaluate and guide students' communication and team cooperation ability.<sup>[4]</sup> Teachers can help students to improve their communication and teamwork skills by observing students' performance in team projects and giving pertinent suggestions and improvement measures. To improve the communication and team cooperation ability of clinical medical students in higher vocational colleges requires various efforts, these two skills can be

effectively improved by adding relevant courses, encouraging team participation, inviting professionals to share and establishing feedback mechanisms, for their future career development in the medical industry to lay a solid foundation.

#### **4.4. We will strengthen education in professional literacy**

Strengthening vocational quality education is the key link to improve the comprehensive quality of clinical medical students in higher vocational colleges, it has a more direct impact on the quality of medical services and the well-being of patients. Therefore, it is necessary to carry out vocational quality education throughout the whole learning process of students. First of all, we should make clear the core content of professional quality, including medical ethics, patient care, professional ethics, sense of responsibility and so on. These contents should become an important part of clinical medical education, which should be taught and strengthened through classroom teaching, practical training and campus cultural activities. Secondly, students should strengthen the training of professional quality in practice. In practice, students should be exposed to real medical environment, experience and learn how to deal with doctor-patient relationship, protect patient privacy, abide by medical ethics. Medical institutions and tutors should shoulder the responsibility to set a good example for students. Moreover, the establishment of a sound evaluation system of professional literacy, professional literacy into the student evaluation of the important indicators. Through regular self-evaluation, peer evaluation and teacher evaluation, to help students recognize their own shortcomings in professional literacy, and urge their improvement. Finally, the school strengthens the campus culture construction, constructs the good professional atmosphere. Through the organization of lectures, speech contests, sitcoms and other activities, let students understand the importance of professional literacy in participation, and consciously internalize it into their own code of conduct. It is very important to strengthen professional quality education for clinical medical students in higher vocational colleges, which is not only the need to improve individual competitiveness, but also the embodiment of being responsible to the medical profession and patients. <sup>[5]</sup>By making clear the content of education, strengthening practical training, perfecting the evaluation system and creating campus culture atmosphere, students' professional quality can be effectively promoted, it lays a solid foundation for training qualified clinical medical talents.

#### **5. Conclusion**

This paper discusses the post competence of clinical medical students in higher vocational colleges, reveals the existing problems, and puts forward a series of practical suggestions. It includes strengthening the combination of theory and practice, ensuring that students can apply the knowledge they have learned to practical work, standardizing the operation of clinical skills, and improving students' professional skills We should strengthen the cultivation of communication and team cooperation to meet the high demands of the medical profession for team cooperation, and strengthen the education of professional quality to shape students' good medical ethics and professional ethics. The implementation of these recommendations will not only improve the overall quality of students and post competence, make them more confident and professional to face the future clinical work, it also has a positive impact on clinical medical education in higher vocational colleges, and promotes the innovation of educational model and the improvement of educational quality. More importantly, these efforts have injected new vitality into the sustainable development of the medical industry and made a positive contribution to the protection of People's health.

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