PBL Learning Method, Existing Problems and Suggestions for Medical Postgraduates in China

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Abstract: This paper, through exploring the Problem-Based-Learning (PBL) teaching method, including what is the definition of PBL, what kind of learning effect is achieved and what is the goal of postgraduate training in medical colleges and universities in China achieves the direction of learning and plays an important role in the medical profession. The author analyzes PBL learning methods, discusses the training objectives, problems, the current situation of postgraduate students in medical colleges and universities, and the research direction of tutors and the application of the students, and puts forward suggestions for solving these problems.

1. Introduction

PBL is a kind of teaching model, which originated from Harvard Medical Teaching in the 1950s. After reading it, the author thought that problem-based learning is a kind of idea and an educational orientation, through which he can achieve his own learning purpose and this purpose plays an important role and influences much on the medical profession. This paper makes a preliminary analysis of the problems existing in some graduate students in China’s medical colleges and universities, and the problems of tutors in students’ education and training, and then put forward some suggestions for improvement.

2. The Definition of PBL

Dr. Howard Barrows and Dr. Ann Kelson from South Illinois University in the United States define PBL as “a course as well as a way of learning”. As a course, it includes carefully selected and designed problems. To solve these problems, learners are required to acquire key knowledge, have the skill to solve problems and participate in group activities and have autonomous learning strategies as a kind of learning style. Learners should have the ability to use systematic methods to solve problems, and to deal with problems encountered in life and work.

PBL is a kind of education and learning mode based on the real world. This mode centers on problems and focuses on students. It was first founded in 1969 by Howarn Barrows, a professor of Neurology in the United States, at McMaster University in Canada. It emphasizes that learning should focus on specific and complex tasks and problems. Encourage students to study independently and introspectively and cultivate students' advanced thinking ability. PBL is high-level problem-based learning, which is interested in learning, thus through learning ability [1-3], it helps to cultivate students' spirit of science, innovation, exploration and criticism [4]. The success of PBL at McMaster University has been imitated by many universities, but at first, it was mainly used in medicine, nursing and health science.
3. **Training Objectives of Postgraduate Students in Medical Colleges.**

According to the Ministry of education, the training objectives of postgraduates must be to implement the policy of all-round development of morality, intelligence and physique, especially to strengthen the training of comprehensive quality and innovation ability of postgraduates.

The specific requirements are Medical Colleges and scientific research institutions enroll postgraduates for master’s degrees. Postgraduate education is the highest end of the whole education chain. It aims to cultivate the students who love the motherland, support the leadership of the Communist Party of China and socialist system, abide by disciplines and laws, have good moral character, serve the socialist construction, master the solid basic theory and systematic professional knowledge, have the spirit of innovation and engage in scientific research, teaching, management or independently undertake specialized technical work of senior professionals.

4. **Problems in Postgraduates of Medical Colleges and Universities.**

4.1. To apply for famous universities or famous teachers

The so-called famous universities are relative. The ranking of famous schools in China is arranged according to the name of school, the province, the type, the total score, scientific research, personnel training and comprehensive reputation. The starting point of applying for famous universities and famous teachers is right, but the students’ academic records and medical majors are different, and the research direction of the same major may be different for the tutors. Therefore, there is a distance between hope and reality sometimes. It is the right choice for students to determine and take a seat according to their own achievements and your favorite professional and research direction. The purpose is to find a more suitable learning environment and tutor. It is more conducive to the development of their own courage to innovate and willing to use their brains and learn. It is more conducive to cultivate their self-confidence, strengthen the ability of cooperation and application of learning, and ultimately improve their academic performance and comprehensive ability, their theory and practice together.

4.2. The applicants do not have a clear understanding of the research direction, area and degree of the tutor

Medical postgraduate education is a high-level medical education, which is different from undergraduate education. It is a process of researching, discussing and discussing problems with problems. The students should have the spirit of innovation and the ability of scientific research, teaching, management or independent technical work. At present, some graduate students of medical specialty do not know the systematic research direction, detailed research content and research degree of tutors. We need to solve these problems, so that graduate students can not only inherit the tutor’s career, but also expand the professional systematization and deep-seated research process, and finally achieve the dual goals of learning research knowledge and obtaining degree, so as to better develop the future their professional career.

4.3. Applicants choose the research direction which they do not like or have no interest in

Einstein, a famous scientist, once said, "interest is the best teacher", which means that when people have a strong interest in something, they will take the initiative to seek knowledge, explore and practice, and generate happy emotions and experiences in the process of seeking knowledge, exploration and practice. Educators at home and abroad attach great importance to the role of interest in the development of intelligence. Interest refers to the positive, tendentious and selective attitude and emotions that individuals produce with specific things, activities and human objects. Everyone will pay enough attention to the things he is interested in and actively explore them, and show his fascination. Interest is not only about the surface of things, but any kind of interest is also due to the acquisition of knowledge in this area or participation in this activity, which makes people experience emotional satisfaction. Scientific research interest is the most active psychological part of graduate research activities, and it is a powerful driving force for scientific research. Therefore, in order to improve the quality of postgraduate training, more attention should be paid to the scientific research interests of medical graduate students.
Some students do not really love their majors, but decide their majors according to their employment prospects and economic benefits, which has a strong tendency of quick success and instant profit.

As a special group in colleges and universities, the difference between medical postgraduates and undergraduates is that medical postgraduates need corresponding scientific research tasks. They need to complete the corresponding scientific research work and publish the research report papers during the period of schooling, and then obtain the degree by writing dissertation, applying for thesis defense. Therefore, the cultivation of postgraduate students' interest and scientific research ability is an important part of the graduate training plan. Scientific research interest is the most direct and positive psychological reaction in graduate students' scientific research activities. Therefore, the real quality of graduate students' cultivation should first attach importance to the improvement of medical graduate students' scientific research interest, so that they can form good scientific research interest, stimulate graduate students to explore unknown truth, and better improve their enthusiasm and initiative.

4.4. Applicants focus on personal fame and wealth, not put career and responsibility first

Under the influence of the real social employment situation in China, many medical students who do not intend to engage in scientific research also join the team of "postgraduate students", who seems to be connected with the scientific research technology and equipment of the laboratory. The so-called postgraduate study is not really for the purpose of devoting to science or an interest in scientific research, but only for the purpose of pursuing a good job or entering a good hospital in the future. The study is only a means and a tool for these people to pursue material interests and achieve their own utilitarian purposes. As some medical students study medical knowledge, they don't take saving the dead and helping the wounded as their aims, but take making money after graduation as the main goal of their medical study.

Medical students should have strong political and ideological qualities and develop the spirit of patriotism. Patriotism is the soul of a nation. Science has no national boundaries, but scientists have their own motherland. Ideological quality is the concrete reflection of view on life and values. We should correctly understand ourselves and treat ourselves, and link our profession, pursuit and career with the fate of our family, unit and country. At the Nobel Prize-winning banquet on December 10, 1957, Professor Yang Zhenning said that I am proud of my Chinese origin and background. The most important achievement of my life is to help Chinese people overcome the feeling that they are inferior to others. This is the pursuit of a great scientist and his patriotism.

4.5. Not engaging in the major after having learned at their postgraduate study

There are also some medical graduate students who do not choose their own major after graduation. Some are engaged in management, logistics, and administrative departments. When some students find that medical research and clinical work need to be hard-working and selfless, they are disappointed, sigh, give up their medical career and seek other ways that they think will bring greater economic benefits. Of course, it doesn't mean it's absolutely impossible. But they have used so much time to learn professional knowledge, and the teachers also have paid so much energy in the process, and graduate students also needed to do some experiments, these experiments needed cost, funds, instruments, consumables and experimental environment and other resources. More valuable is the three years’ study. Most of these medical postgraduates are in the "quota" range of the national plan, that is to say, the applicants applied for the postgraduate entrance examination of the medical university in that year accounted for the "quota" of this school. It is a pity for those who wanted to go but didn't go there for some reasons. And the real medical graduate students did not play the role of this "quota". This is the so-called “The land, I planted, but I didn’t reap”. It's also acceptable if you can really bring innovation and create value and make a great contribution to other positions, but this may be very limited. If this happens, it will be a huge waste of the students themselves, time and social wealth. And it will also cause a great loss to the progress of the whole society. This is no longer a personal problem, but a social and national problem. We should attach great importance to it and solve it reasonably.
5. Suggestions

5.1. Learn about the school you apply for, choose your favorite major, and focus on problem-based learning and research

After you determine the school you want to apply for, the most important information channel is the graduate website of your school. In addition to the announcement of changes in national policies, the website will also explain the relevant policies of its school. Another channel is the China Graduate Enrollment Information Network, which is mainly to find the national policy or local policy issues. This website also refers to the information published on the graduate website of each school.

Interest is the most important factor to keep lifelong learning, and the cultivation of students' interest is the core of educational theory and practice. Interest is the specific expression of intrinsic motivation in learning, and is closely related to certain emotions. This determines that learning interest has the characteristics of individualization. In the process of cultivating learning interest, it is necessary to conduct personalized analysis and establish a good idea of happy learning.

5.2. Making clear the research direction and current situation of tutors, then keeping on studying

Science and technology are the first productive power, and innovation is the soul of science and technology. Chinese scholars have different definitions of innovative thinking. The typical definition is the process of continuous restoration of contact and formation of contact in the cerebral cortex. It is a mental activity based on the abilities of perception, memory, thinking, association and understanding, and characterized by comprehensiveness, exploration and innovation. It's called innovative thinking that opens up new areas for people's understanding and practice and lays a foundation for future generations. Through understanding the research topics, depth and width of research content, and combining their own interests and hobbies of the students to apply for their favorite tutors, favorite majors and favorite research topics. The purpose is to better study the issues that need to be studied. Because scientific research, to explore and reveal a problem is like uncovering the veil that covers the truth layer by layer. These problems need to be solved under the guidance of the tutor. Only if we continue to be interested in research, we can uncover the last veil. The Albert Marie Lascaux Foundation and the Lascaux Prize for medical impact, known as the Nobel Prize wind vane, focus on scientific originality in its study. Through literature reviews, the research of these award-winning scientists and explorers is based on problem-based learning methods. They are curious, persistent. Of course, the luckiest choice was made at the right time. Because these awards are always for the luckiest scientists who work hard.

6. Conclusion

PBL teaching plays an important role in improving the knowledge and ability of clinical medical students, which can be widely used [7-11]. No matter what method and technology are not perfect, PBL also has some defects. First of all, the content of PBL is less than that of traditional courses. Students may focus on solving problems and ignore the learning objectives. In any kind of culture, the direction of education is the most powerful and long-term social means to improve human quality, and also the highest art to express human emotional intelligence. Teachers are the guardians of the best soul of the society, and the work of education is to promote the acquisition and establishment of intelligence through human interaction.

References


[3] Wang Yefei, Ding Lei, Xu Zizhen, etc. Application and thinking of PBL teaching in clinical


[7] Pu Dan, Li Tong, Peng Yihong, etc. Different effects of basic knowledge and PBL learning process on the improvement of medical students’ ability [J], Basic Medical Sciences and Clinics, 2014, 34 (11): 1590-1593


[10] Zhu Xiaoping, Thoughts on developing PBL teaching and cultivating the innovative ability of medical students [J], China Adult Education, 2013, (3): 158-159