

On the Application of LBL-PBL Teaching Mode in “Huangdi Neijing” Course Teaching

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Abstract—The course of “*Huangdi Neijing*” mostly contains basic concepts, knowledge and theories from TCM (hereafter called TCM), as well as the diagnosis and treatment knowledge of many clinical diseases and syndromes. It requires students not only to master the basic knowledge of “*Huangdi Neijing*”, but also to cultivate correct clinical dialectical thinking. Research found that its theory part shall be more suitable for LBL teaching mode, its knowledge of clinical diagnosis and treatment shall be more applicable to PBL teaching mode, and the combination of these two teaching modes shall be applied more in line with teaching practices among current colleges and universities of Chinese medicine, so as to help students learn and understand medical theory in “*Huangdi Neijing*”, and at the same time, cultivate and improve students' clinical thinking ability.

Keywords—“*Huangdi Neijing*”; LBL/PBL; Teaching mode

I. INTRODUCTION

As the first of the four classics in TCM, “*Huangdi Neijing*” has not only established the theoretical system of TCM but also laid the foundation for its development. If an individual wants to learn TCM, it is necessary for him or her to step on the path of classics. As a classical course, the theoretical framework of “*Huangdi Neijing*” is the source for the development of TCM. Thus, teachers should think deeply about how to make students love “*Huangdi Neijing*”, how to lead students to enter the gate of classics' learning, how to teach “*Huangdi Neijing*” well, and how to make students become excellent talents of TCM.

A. Current status of “*Huangdi Neijing*” teaching

1) Teaching hours and teaching method

In terms of professional curriculum setting, many colleges and universities of TCM pay little attention to classics courses of TCM. The class hour of TCM is short while that of non-TCM is even less. Such a short learning time makes teaching busy and during the teaching, teachers, most of the time can only adopt the teaching method focusing on classroom teaching,

which leads to less communication with students and less time to answer questions from students, greatly reducing students' learning enthusiasm. Secondly, in terms of students, the text of “*Huangdi Neijing*” is archaic and abstruse, and its principles of medical science are sophisticated and abstruse. Especially for the beginners with weak Chinese language knowledge, it is very difficult to read and understand “*Huangdi Neijing*”, and they will doubt about its theoretical guidance and significance of TCM clinic, and lost their enthusiasm for “*Huangdi Neijing*”; Thirdly, more TCM colleges and universities set “*Huangdi Neijing*” and other three classic courses as optional non-compulsory courses, require students to master them at a low level, and have low assessment conditions in the final examination, resulting in students' great neglect of these courses. In such a teaching mode, the knowledge taught by teachers is limited and students' autonomous learning ability and innovative thinking cannot be improved, which obviously make it not able to be adapted to the current talent cultivation.

2) Cognitive characteristics of contemporary college students and features of times

Most of contemporary college students were born after 1900 or 2000, and they have the following characteristics:

a) Strengthen self-consciousness and pursue self-assertion.

Contemporary college students are more exposed to new things and they are equipped with independent thinking, as well as individuality, and have the cognitive characteristics of purpose and utility.

b) The networking of study and life.

The Internet has opened up a new and broad learning space and provided a simple, convenient and fast school platform for contemporary college students to obtain information.

c) The multielement of life goals.

In pursuit of novelty and stimulation, most students are sensitive and flexible in cognition, but lack in-depth analysis ability.

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d) The maturity of their body and mind development.

College students' physiological development tends to be stable and mature, but their behavior is relatively impulsive, and they like to use their limited life experience to get rid of traditional preaching from the external authority.

e) Poor sense of responsibility and lack of ideal beliefs;

Due to the lack of life and social experience, it is easy for students to shirk responsibility. Coupled with the rapid development of the market economy, the transition period of the society, the conflict between old and new concepts, as well as the infiltration of diverse cultures has emerged, making college students with immature personality feel confused about cultural beliefs.

3) The arrival of the omnimedia era

In March 2015, Premier Li Keqiang put forward the "Internet plus" action plan for the first time when he delivered the government report, making it clear that "Internet plus" is to deeply integrate the new achievements of the Internet with various sectors of the economy and society. From the perspective of education, "Internet + education" is to make use of information and communication technology and Internet platform, so that the Internet and traditional education industry will be deeply integrated, and new education ecology could be created and developed. Network education makes all kinds of educational resources whether from colleges and universities or from educational institutions spread rapidly and widely on the network platform, making educational resources realize maximum utilization and sharing. With the ever-changing update of medical knowledge, the future development of TMC shall not only be considered, but The Times shall also be kept pace with. Thus, colleges, along with students should master more cutting-edge information, and enhance the spread and education of classic culture from TMC with the advantage of the Internet.

B. Characteristics of LBL and PBL teaching modes

1) LBL teaching mode

LBL (lecture-based Learning) teaching mode is the most traditional teaching mode, which is lecture-based, focusing on the output of knowledge by teachers and the input of knowledge by students. As the main teaching mode of basic subjects, LBL has its own irreplaceable advantages. Its main organizational form is the teaching system on the basis of the overall-class students and the teacher-led teaching model can help students quickly build a comprehensive and systematic theoretical system, which is applicable to classes of all sizes. Therefore, it is often used in the teaching of theoretical knowledge courses. "*Huangdi Neijing*", from the macroscopic perspective, discusses the relations among heaven, earth, human, and analyzes the basic subject of medical science---the laws of life activities, and creates the corresponding theoretical system, control principles as well as technology, theoretical principle application technology and the methodology used which has provided, can't be mastered by mere reading. Through detailed analysis and interpretation by teachers, the LBL teaching mode enables students to quickly integrate into the theories, instead of being confused by the difficult words and losing their enthusiasm for "*Huangdi Neijing*". Therefore,

by virtue of its advantages in theoretical knowledge teaching, LBL is applicable to the study of basic theories of "*Huangdi Neijing*", which has the characteristics of systematicness, extensiveness and profoundness, and enables students to master the basic theoretical knowledge solidly.

2) PBL teaching mode

PBL (problem-based Learning) teaching mode, which is based on Problem Learning, was first proposed by an American professor of neurology Barrows in 1969. It aims to train students' self-learning ability, practical ability and innovative thinking ability, etc., and it is a new teaching mode that has received extensive attention internationally in recent years. It takes students as the center, and considers problems as the starting point, including asking questions before the class, establishing the hypothesis, students' finding information, verifying hypothesis, group discussion and summarizing, and it has been achieved only through the cooperation between students during the process, without teachers' participation. By the means of teaching students will learn the scientific knowledge hidden behind the problems, and form the skills to solve problems and the ability of independent learning. The teaching mode breaks the traditional teaching form, and pays more attention to the teaching concept---to develop students' autonomous learning ability. What's more, it makes students more clearly about learning purpose, promotes students to take the initiative to consult and think about problems, and changes from passive acceptance in the past to active exploration at present, giving full play to students' subjective initiative, and cultivating students' independent learning ability. PBL teaching mode has gradually become the direction of the reform and development of medical education in China, which is of great help to the teaching of "*Huangdi Neijing*" as well as the integration of other disciplines and TCM.

C. LBL-PBL teaching mode

1) The necessity of LBL-PBL mode in the teaching of "Huangdi Neijing"

In "*Huangdi Neijing*" teaching, in view of the advantages and disadvantages of PBL and LBL teaching mode, if the benefits of PBL and LBL teaching mode are combined, we can pay attention to the integrity and systematicness of knowledge and solid of theory, and at the same time, through PBL teaching mode, the enthusiasm of students can be fully aroused, the potential of students can be greatly excavated, and students' interest in learning can be highly stimulated. Ye Dexing found that reasonable application of LBL-PBL teaching mode could improve the quality of experimental teaching of local anatomy, and enhance the pertinence and effectiveness of teaching. Sang Ran et al. found that based on cases LBL-PBL teaching mode could significantly improve students' learning enthusiasm and initiative, enhance students' understanding and memory of knowledge points of pharmacoeconomics, and strengthen the teaching effect of pharmacoeconomics by studying the students of the two sessions. It can be seen that the combination of LBL and PBL not only strengthens students' memory and understanding of basic knowledge, improves students' self-learning ability and ability to analyze and solve problems, but also creates more opportunities for teachers to understand students' personality and learning ability. Teaching students in

accordance with their aptitude can achieve better teaching results. LBL-PBL teaching mode is an efficient teaching mode, which is completely suitable for the teaching of TCM classics, making students accurately understand and grasp subtlety of TCM, realize the close contact between “*Huangdi Neijing*” theory and TCM clinic. Only in this way can “*Huangdi Neijing*” theory be applied accurately in the clinical and practical life of TCM, and a new approach be opened up for the cultivation of truly high-quality TCM talents.

2) *The application of LBL-PBL mode in the teaching of “Huangdi Neijing”*

In terms of grasping knowledge, LBL teaching mode is more effective than PBL teaching mode. Therefore, in theoretical teaching, LBL teaching mode should be put to good use. When students have a comprehensive understanding of knowledge, PBL teaching mode should be used to design problems related to teaching content and organize students to discuss and analyze problems, so as to stimulate students' learning interest and thirst for knowledge. For example, when teaching Suwen Siqi Tiaoshen Dalun, the teacher shall first lead students to interpret the original text in detail. Then, after class, questions like “how to understand ‘Yang-preserving in spring and summer, Yin-preserving in autumn and winter’” could be put forward. Through the review of relevant literature, students then have group discussions in class, and after the results, representative students from each group shall analyze and state in the class. The teacher will record content presentation. After each group's presentation, the teacher will make a summary at last, and link it with clinical practice, so as to deepen students' understanding of relevant original texts, broaden their scope of knowledge, and make them understand the clinical guiding role of the theory from “*Huangdi Neijing*”. In this process, the teacher shall encourage and guide students to solve problems with what they have learned, so as to consolidate their knowledge and enhance their ability of knowledge application, analysis, exploration, thinking and language expression.

3) *The significance of LBL-PBL mode in the teaching of “Huangdi Neijing”*

The adoption of LBL-PBL mode in the teaching of “*Huangdi Neijing*” enables students to systematically and comprehensively master relatively solid basic knowledge. Research shows that the theoretical performance of students using PBL teaching mode is lower than that of those using traditional LBL teaching mode. However, the latter makes students lack the understanding and practice of knowledge as well as initiative in learning. PBL teaching mode will arouse the enthusiasm of students; make students active in thinking, analysis and discussion. And in teachers' appropriate guidance, they will solve problems, and master knowledge, but the single PBL teaching mode makes students neglect the learning of basic knowledge. When confronting with some abstract concepts and nouns, they may generate some problems such as

the incomprehension of the meaning of the question, resulting in their blindness study, and increasing their learning pressure. Therefore, both LBL and PBL teaching modes have their own advantages and disadvantages. We should not only see the disadvantages of LBL teaching mode and then pursue PBL teaching mode unilaterally. We should teach students in accordance with their aptitude, and make flexible use of these two teaching modes, or even combine them with a variety of other teaching modes, making them complement each other. In each learning stage, the use of different teaching modes can make learning specific and vivid; enhance students' interest in learning, and at the same time increase students' ability to use theoretical knowledge to solve practical problems.

II. CONCLUSIONS

To sum up, the advantages of LBL-PBL teaching mode is what neither PBL nor LBL teaching mode alone has. The teaching content of “*Huangdi Neijing*” involves almost all the basic concepts, knowledge and theories of TCM, and includes many clinical diagnosis and treatment knowledge of diseases and syndromes. It is easier for LBL-PBL teaching mode to help students understand abstruse and obscure theoretical connotation, and at the same time, improve students' learning enthusiasm and initiative, and increase their ability to solve clinical problems with theoretical knowledge, which helps to cultivate students' thinking of TCM. LBL-PBL teaching mode fully embodies the “student-centered” modern teaching concept.\

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