

Analysis on the Training Mode of Application-oriented Undergraduate Nursing Personnel Under Competency Theory*

Yaling Xu

Guangxi University of Science and Technology
Liuzhou, China 545006

Abstract—With the continuous progress of society, medical services are being increasingly demanded, and the medical and health industry is facing fierce social competition in the market economy. Under the circumstance of the reform of the medical industry and the improved status of nursing care, high-quality and professional nursing talents have become the key to the sustainable development of the medical industry. Therefore the construction of high-quality nursing team and training of highly skilled nursing personnel has become the main direction of the current application-oriented undergraduate colleges. On the basis of the description of the competency theory, combined with the principle of the high-end nursing personnel training mode based on the competency theory, this paper explores the application-oriented undergraduate nursing personnel training mode focusing on the development of reasonable objectives, the design of curriculum system, the innovation of teaching mode and the improvement of evaluation system, so as to provide reference for the talent cultivation reform of application-oriented universities.

Keywords—post competency; application-oriented undergraduate; nursing personnel training mode

I. INTRODUCTION

Nursing education is an important factor to promote the development of nursing subject. But compared with other subjects, nursing education has less time and a low starting point of development. At the beginning, only specialized middle school provide nursing education, after which the nursing education had been carried out in the mode of secondary education. It was not until the implementation of the nursing regulations in 2008 that the nursing discipline was officially listed as a first-level discipline and the current situation of nursing education was greatly changed. Combined with the establishment of the university classification management system, the newly established undergraduate colleges have been gradually transforming into application-oriented undergraduate colleges, and the nursing education mode has also been reformed and

optimized to a large extent. The current application-oriented undergraduate nursing talent training mode is mainly based on the construction of students' professional skills, attaching importance to the cultivation of students' practical ability and penetrating the concept of post competence in the actual education process so as to make the nursing education more close to medical needs.

II. POST COMPETENCY OF NURSES

A. Competency Theory

The competency theory is a kind of personal performance judgment theory put forward by the psychologist McClelland of Harvard University. Getting more and more mature, the theory has become an effective human resource management skill up to now. The word "competency" indicates some trait of ability possessed by a person, that is, the things that a person can do, including basic elements and core elements. The basic elements are also known as appearance factors, which represent the knowledge and skills that individuals can display. The core elements are also known as potential factors, including social roles and attitudes, self-image and values, motivation and personality [1]. In 1973, professor McClelland proposed the iceberg model (as shown in "Fig. 1") to explain the competency. Then scholar Richard Boyatzis put forward the Onion model on the basis of iceberg model, which further describes the hierarchy of personal qualities.

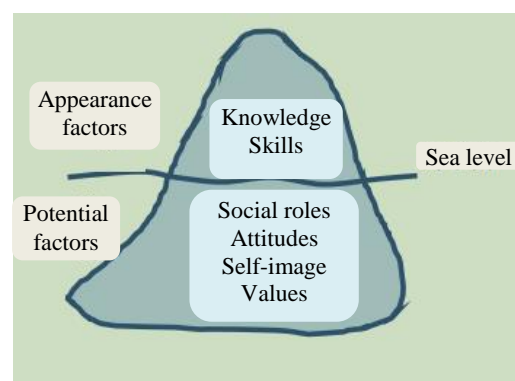


Fig. 1. Iceberg model.

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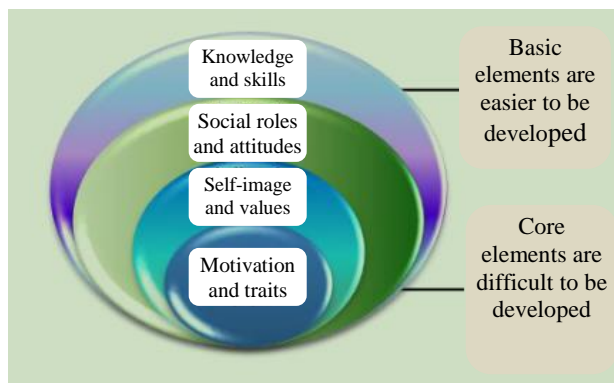


Fig. 2. Onion model.

The iceberg model and the onion model (as can be seen in “Fig. 1” and “Fig. 2”) divide individual characteristics into competency characteristics such as knowledge, skills, self-concept, traits and motivation, which constitute a complete competency structure. Among them, knowledge and skills are the explicit characteristics of people, which are easier to be revealed and can be further developed through training and learning, while motivation and traits exist in the deeper part of personality structure, which mainly represent the cognition of personal values and motivation, and are difficult to be changed through training or learning [2]. McClelland holds that the appearance factor and the potential factor in competency in the iceberg model are the key factors to distinguish the talent quality, based on the above competency theory. The current competency theory is mainly applied to the job analysis and training mechanism establishment of enterprises in various fields. Through the exploration of employee competency elements, the scientific coordination between human resources and posts is carried out to realize the optimal allocation of human resources. At the same time, it can also evaluate the current ability level and quality of employees, and establish a targeted training mechanism to improve the competency [3].

B. Post Competency of Nurses

The application of post competency theory in nursing field is relatively late. After a period of development, nursing post competency mainly refers to the ability of nursing staff to achieve satisfactory performance in the changing work environment caused by social development. In 1978, the American association of operating room nurses proposed the competency standard for perioperative nurses, that is, the basic knowledge and skills necessary for the post of registered nurses in the operating room. Under the background of continuous medical and health reform, the competency standard of nurses has been greatly changed. The current definition of nurse competency in China refers to the ability characteristics meeting the comprehensive and sustainable development requirements, which is distinguished from performance. In other words, a qualified nurse should have nursing attitude and post self-cognition values that meet the needs of modern medical service system, on the premise of the most basic knowledge and skills, and

can provide safe, reliable and intimate nursing services through independent learning [4].

III. PRINCIPLES FOR CONSTRUCTING THE TRAINING MODE OF APPLICATION-ORIENTED UNDERGRADUATE NURSING PERSONNEL UNDER THE COMPETENCY THEORY

Combined with the reform of nurse post competency standard and service demand of modern medical and health industry, the construction principle of application-oriented undergraduate nursing personnel cultivation mode under the competency theory mainly including the following aspects:

- Meeting the needs of clinical nursing posts under the medical reform;
- Establishing the educational concept of nursing education and training new talents;
- Strengthening the teaching staff by enhancing the professional knowledge reserve and ability of teachers [5];
- Establishing a curriculum system to meet the training objectives and the needs of the medical industry;
- Establishing an assessment system suitable for the clinical nursing industry.

IV. APPLICATION-ORIENTED UNDERGRADUATE NURSING PERSONNEL TRAINING MODE UNDER THE COMPETENCY THEORY

To determine the training mode of application-oriented undergraduate nursing talents under the competency theory based on the construction principle, is mainly reflected in the transformation of educational philosophy, determination of personnel training objectives, adjustment of curriculum design system, optimization of educational teaching methods and improvement of teaching evaluation, etc. The details are as follows:

A. Transforming the Educational Philosophy

Application-oriented colleges have experienced the transformation and development from technical secondary schools to and to junior colleges and universities, thus have different educational concepts with vocational schools and academic universities. As institutions of higher learning focusing on the cultivation of applied skills, the main function of application-oriented undergraduate colleges and universities is to cultivate skilled personnel adapting to social changes and development, which has a strong practical significance and value. They mainly realize the combination of professional theory and practical operation by gearing itself to production, management and service positions and combining the characteristics of the position to cultivate professional skills. Based on the functional characteristics of application-oriented universities, it can be known that in the process of practical education and training, talents need to have a certain degree of basic knowledge, and at the same time be able to apply knowledge and skills to practical work to solve problems in the operation of the work, which means

they need to be the user and implementer of technology. Therefore, the training of application-oriented undergraduate nursing talents based on post competency needs both theoretical and practical support to cultivate practical talents with professional nursing knowledge. This requires application-oriented colleges and universities to change their educational concepts, and starting from the theoretical knowledge of nursing to improve students' front-line operation ability through clinical practice. They need to guarantee the timely docking of their educational concepts to the medical service concept so as to meet the needs of the society, and so that the nursing staff can continuously optimize the nursing skills and improve their personal professional ability [6]. In another aspect, to adapt to the development of clinical nursing on the basis of post competency, it is necessary for applied nursing personnel to meet the current development of clinical nursing needs. Guided by the demands of jobs, they should adapt to clinical development in the aspect of professional knowledge and practical skills; capture the dynamic social demand; expand new knowledge. On the basis of these, the curriculum should be adjusted, the teacher training should be strengthened, and the training system of applied nursing talents should be optimized quantitatively. Moreover, the regional characteristic of professional care should be highlighted to integrating nursing education with local needs, that is, considering the transformation of professional nursing talents under the background of regional development and change, so as to meet the needs of nursing talents for regional development.

B. Determining Personnel Training Objectives

Determining personnel training objectives of applied undergraduate based on competency refers to combine the regional nursing posts to cultivate talents that meet the needs of the posts. For application-oriented undergraduate nursing students, their employment institutions are generally hospitals at all levels, rehabilitation institutions and community hospitals, and nursing service objects are clinical holistic nursing and community service. The nursing talent training objectives should be formulated with the core of "attaching importance to knowledge and skills, strengthening clinical practice, and highlighting nursing thinking" according to the regional medical service development status. That is to realize the combination of professional application and subject theory, which ensure that nursing students not only have the necessary theoretical knowledge and professional skills, but also have good professional quality, certain nursing management ability and critical thinking ability, so as to ensure the sustainable development of high-end nursing talents.

C. Adjusting the Course System

The curriculum setting of application-oriented undergraduate nursing talents training based on post competency should be guided by post competency, reasonably designed according to the practical work content of clinical nursing, adjust the proportion of curriculum weight according to the needs of regional development, and construct a scientific curriculum system meeting the needs of

nursing posts and society. The post competency requires the combination of theoretical teaching and practical teaching. The 2017 nursing talent training plan requires strengthening nursing practice and implementing the practical training plan in the whole process of nursing teaching. Based on this, TCM nursing training, basic nursing training and comprehensive nursing training can be set up to cultivate students' clinical nursing practice ability in an all-round way. Gradual teaching mode should be permeated in each practice course, from one-way operation to comprehensive operation, from simulation to real person, from laboratory to clinic, focusing on the training of basic nursing skills operation, so as to realize the close docking of nursing teaching and clinical operation [7]. In addition, nursing courses should not only be limited to school teaching, but can also combine classroom teaching with social practice. After completing the corresponding classroom learning and under the guidance of professional teachers, students can be arranged to enter hospitals or communities to carry out social practice. In this way can they apply the theoretical knowledge to practice so as to improve their consciousness of nursing responsibility. Finally, it is necessary to enhance the humanistic quality, professionalism and humanistic quality on the basis of professional skills training for nursing personnel in the new era to improve their comprehensive quality. Therefore, in the process of setting nursing courses, humanistic nursing training is also necessary. General humanistic nursing training includes nursing etiquette, nursing psychology, psychiatric nursing science, community nursing science, etc. Through humanistic nursing training, students can cultivate good professional ethics and interpersonal communication ability, which plays an important role in improving nursing service ability and docking medical service reform in the new era.

On the other hand, the training of application-oriented undergraduate nursing talents with post competence as the core needs to meet the needs of local nursing posts, so the introduction of featured courses is also an important part of the reform of the curriculum system. Combining with the needs of the regional nursing market, and highlighting the human resource management mode based on post competency guided by the actual work process. For example, on the basis of the modern first-aid framework, the "first-aid medical service system", a featured curriculum system with the modules of "pre-hospital first aid, intensive care and emergency nursing" is set up and associated with local medical institutions with scientifically set proportion of first aid class hours. In combination with the geriatric nursing training plan, the curriculum modules of "geriatric health care", "geriatric health care and nutrition" and "geriatric sociology" should be set up to further expand the curriculum features and realize the connection between nursing teaching and social needs.

D. Optimizing Education and Teaching Methods

The optimal setting of nursing courses provides the direction for the training of nursing talents based on post competency. However, it is necessary to impart the course contents to students through modern education and teaching

methods, and improve the efficiency of students in accepting knowledge. Therefore, the selection of teaching methods is very important. The current common teaching models are as follows:

1) *Case analysis*: Case analysis is one of the most common and effective clinical teaching models in nursing teaching. Through typical clinical nursing cases, students can be guided to reflect and discuss on the basis of theoretical knowledge, and the knowledge they have learned is fully applied to practice, so as to improve their ability to explore and solve problems independently. In the whole process of case analysis, teachers play a leading role. They combine the content of textbooks and learning objectives to select appropriate clinical nursing cases, and actively guide students to analyze and think about the cases. The general steps are distributing nursing cases before class, guiding students to find problems, arranging discussion and solving problems, and making final comments. In the final parts of teachers' comments, they should point out the problems in the students' reference discussion, analyze the reasons for the mistakes in the textbook, and summarize the solution ideas based on the case analysis [8]. The application of case analysis method in clinical nursing teaching can help students form a logical mode of critical thinking, combine the knowledge theory with practical cases, shorten the specific relationship between teaching materials and clinical practice, and improve the ability of knowledge transformation.

2) *Problem-based learning*: Problem-based learning (PBL), also known as project-based learning, emphasizes student-centered teaching and abandons the traditional classroom teacher-inputted teaching mode. It drives the teaching process by starting from a problem to be solved. In the process of problem analysis, students can try to solve the clinical problems they face by complementing each other, transform basic knowledge and skills into operational ability, and explore problems independently with the help of textbooks and network resources, so that they can expand their horizons and develop new skills on the basis of consolidating the original learned knowledge.

E. Improving Teaching Evaluation

Due to the influence of subject specialty and school nature, traditional nursing teaching evaluation method is more inclined to the result, with the test result, theory test and test content taking a great weight in the evaluation process, while the evaluation of process evaluation, clinical nursing practice results and knowledge understanding being relatively small. In addition, since the scores of the "noun explanation", "fill in the blanks" in the content take a relatively large proportion, students have to cram every day to promote their grades. The questioning, discussion and understanding process are even excluded from the evaluation system. Evaluation results formed this way are contrary to the competency theory, which does not meet the needs of modern medical care reform for nursing personnel. The

reform of nursing teaching evaluation based on post competency needs to determine the weight proportion in combination with the competency factors. Among them, the basic factors, such as knowledge and skills, can be assessed by combining theory with practice; communication ability, humanistic quality, professional ethics and learning ability can be evaluated through one-on-one dictation and group mutual evaluation. In this way can the proportion of basic factors and core factors of competency be scientifically determined to guarantee the effectiveness of the teaching evaluation?

V. CONCLUSION

The training of application-oriented undergraduate nursing personnel based on the competency theory needs to meet the practical medical care needs and determine the knowledge and quality of current nursing staff required in combination with the competency theory. Reform should be conducted from the respects of teaching concept, teaching objectives, teaching methods, teaching content and teaching evaluation, to improve the teaching effect and the overall quality of nursing staff.

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