

## Establishment and Effect Analysis of Diagnosis and Improvement System in Professional Nursing Vocational College

**Miao Maoyun, Cui Zhaozhong, Zhang Xiangfeng**

Doctor of Philosophy in Education Management, Lyceum of the  
Philippines University, Batangas City, Philippines  
Weifang Nursing Vocational College, Shandong University  
Humanities and Social Sciences Research Project, China

**Abstract** - *Nursing is not only the advantage major of Weifang Nursing Vocational College, but also is the brand of ShangDong province of China. Our college is guided by the construction of high-level nursing specialty, and it effectively carried out a “5821” teaching and Improvement System. We carried out diagnosis and improvement at five levels: college, major, curriculum, teachers and students. With results-oriented teaching as the path, we gradually formed 8 quality improvement spiral, we take the system construction and information construction as the guarantee to promote the effect. With the help of the construction of medical specialty culture, it has achieved remarkable results in professional brand effect, teaching team building and strengthen moral education and cultivate people.*

**Keywords:** *Nursing major, Diagnosis and Improvement System, effect analysis, Shandong China, Weifang Nursing Vocational College*

### INTRODUCTION

In 2015, the Ministry of Education of China issued a diagnostic and improvement system. It requires vocational colleges to fulfill the main responsibility of quality assurance of personnel education. The college should implement multi-faceted, multi-dimensional diagnosis and improvement, “To be professional” is the core of running a vocational college (Hui, Dawei, Yang, 2018). Professional construction plays an important role in improving the level and connotation construction. The level of professional construction not only

reflects the level of talent development, but also is an important indicator of school education quality, teaching quality and school-running efficiency. Therefore, the college puts professional diagnosis and improvement in a very important position (Ting, 2017).

The nursing school of Weifang Nursing Vocational College has taken being a well-known high-level school in China for its professional construction goal. The nursing professional teaching team has conducted extensive and in-depth research under the leadership of professional leaders. According to the scale of schooling, the conditions, and the level of running a school, the specific construction goals of the nursing profession were formulated. After 3-5 years of construction, the college will further improve the system of joint education between hospitals and schools. It will innovate the talent training model based on the concept of results-oriented education. A multi-functional training center integrating teaching, technology research and social services will be built. It will have a team of double-teachers with rich teaching experience and clinical experience. It will be a first-class, specialized and integrated team in Shandong province. It will form the characteristics of the nursing profession and improve the quality of personnel training. The nursing profession will be built into a well-known domestic high-level professional that leads the development of professional groups. It has strong school-running strength, better school-enterprise integration, strong professional construction quality assurance, and distinctive school-running characteristics.

Student-centered training, which takes talented training as an important source of professional diagnosis and endogenous motivation. The school of nursing in Weifang Nursing Vocational College focuses on the center of students and promotes the diagnosis and its improvement in a comprehensive, overall and coordinated manner. The college regards the talent cultivation as an endogenous motivation to drive professional diagnosis and its improvement. The college has established internal quality assurance mechanisms at five levels: schools, majors, courses, teachers, and students. It is fully committed to cultivating higher levels of students.

To take OBE as a guide, do a good job in top-level design of professional construction, and create a "standard chain" for professional diagnosis and improvement. In accordance with the outcome-based education (OBE), we probe into the problems in seven aspects: training objectives, student development, graduation requirements, curriculum system, faculty, support conditions, and continuous improvement. Do a good job in the top-level design of professional construction and create a "standard chain" for professional diagnosis and reform. Docking international standards and cultivating high-quality nursing talents is needed to meet international demands (Zhu Ting, 2018).

Based on its professional advantages, Weifang Nursing Vocational College has introduced the US ISPN curriculum and the Canadian CLPNA teaching standards and evaluation certification program. The ISPN program integrates cutting-edge nursing concepts and nursing technology operations, advanced teaching methods into classroom teaching, and strengthens the cultivation of students' scientific thinking. Conducted a strategic partnership with the Canadian Licensed Nurses Supervisory Board CLPNA to introduce the Canadian CLPNA Teaching Standards and Assessment Certification Program. Introduce a scientific and effective nursing professional teaching system that meets the requirements of internationalization, improve the evaluation standards of nursing teaching system, enhance the international recognition of the quality of nursing education and teaching results, and cultivate high-quality talents that meet international needs.

## **OBJECTIVES**

### **1. Make clear the goal of professional reform**

According to the theory of internal quality assurance system, the logical starting point of clinical reform should be made clear, that is, the goal should be determined. After a national scheme, national backbone of the school and the innovation development action plan construction projects such as construction, higher vocational colleges in our country key construction professional experienced conditions improve, mechanism innovation, quality

assurance, and promote industrial structure adjustment and industry development stage of history, has gradually from scale development to the high quality of connotative development. We need to build a number of vocational schools and key specialties (clusters) that lead the reform and support development, are of Chinese characteristics and of world level (Yong, Zhang, Liu, Wen, Zhang, 2018).

## 2. Establish standards for professional diagnosis and reform

Under the new professional development goal, supporting standards are needed to measure, that is, to form the "target chain" and "standard chain" of professional diagnosis reform. Although the diagnosis and reform standards are set independently, they should still be based on various national standards. Such as the original of higher vocational education (specialist) professional directory, professional teaching standards in higher vocational schools (trial), vocational schools, professional standard of field work, the higher vocational school professional instruments and equipment specifications, etc. Series of standards, standards and specifications set teachers, professional teaching, curriculum standard, field work, the practical condition of construction standard and construction of the ground (Hao, 2018).

## 3. Optimize the system of professional diagnosis and reform

In the process of professional clinical change, professional clinical diagnosis elements of change to be more rich, including a fully functional training base, deeper engagement between colleges, more rich the double quality of teachers, more variety of teaching resources, more levels of quality evaluation, such as more efficient teaching process, which should become the important factor of diagnostic target.

## METHOD

The researcher used the Ministry of Education Higher Vocational College Talent Training Working Status Data Platform and Professional Development and Assessment System for management and control.

## **RESULT AND DISCUSSION**

### **Establish a target system for the diagnosis and improvement of nursing professions**

In the docking area industrial structure optimization and upgrading requirements, according to the school's school positioning, the college clears the train of thought and clarifies the objectives of professional diagnosis and reform. Taking the adjustment structure as the main line and improving the quality of personnel training as the core, focusing on the construction of nursing professional groups, the "13th Five-Year Plan" development plan and various sub-plans were analyzed and improved, and the key tasks of the nursing professional diagnosis and reform were clarified. The papers on professional construction and curriculum construction have created a chain system consisting of "College Development Goals – Secondary Department (Department) Objectives – Professional Construction Objectives – Curriculum Construction Goals", guiding the preparation of professional and curriculum construction programs, and making the college plan The goal can be implemented.

### **Establish a professional standard system for nursing**

Starting from the students' learning results, the "reverse" design of professional teaching standards. First of all, starting from the basic quality of nursing staff, determine the training objectives of talents. Clarify the training objectives, talent type, professional field, professional characteristics, professional ability, non-professional ability and professional achievement.

Refine graduation requirements based on talent development goals. Design graduation requirements for nursing graduates. Determine the course system according to the graduation requirements and refine the graduation requirements. Form the ability index, on the basis of which the course objectives, course content, and curriculum system are formed.

### **Design of quality control points for professional diagnosis reform**

Professional clinical change quality monitory point is the standard of elaboration and quantify, facilitate the professional quality for timely monitoring point to point, in setting the goal of professional diagnosis to chain and standard chain, on the basis of in-depth analysis of major clinical change target chain, the standard chain specific key nodes, each by 11 core concerns into the final 42 professional clinical change quality monitory point (Li, 2017a). According to the data platform of higher vocational colleges, the performance report of the innovation action plan and the quality annual report, the design of the quality monitoring point of the professional diagnosis and reform should further comb the relevant key data and continuously update and optimize them (Li, 2017b). The specific quality monitoring points of the professional diagnosis reform are shown in Table 1.

**Table 1 design of quality control points for professional diagnosis and reform**

Number	Core Concerns	Quality control point
1	Professional planning	The five-year construction plan of the college and the construction plan of the department
2	Professional construction standards and systems	Professional talent training program, professional construction standards (A/B/C/D), professional talent demand research opinions, talent training program system (repair) guidelines
3	Professional talent demand research	The number and type of enterprises were investigated, the recognition degree of the enterprise for the specification of the professional talent cultivation, the consistency between the demand of representative enterprises and the professional training positions, and the investigation report of professional enterprises

**Table 1. (cont.) design of quality control points for professional diagnosis and reform**

Number	Core Concerns	Quality control point
4	Major Settings	"Professional demonstration (new specialties) conclusions, professional review (established specialties) conclusions, mixed ownership, modern apprenticeship and orders
5	Talent training program	Department review work meeting and conclusion, credit composition degree, vocational qualification certificate/vocational ability standard and course connection, Teaching department review conclusions, school review conclusions, the operation of professional teaching plan adjustment
6	The teaching file	The establishment of curriculum syllabus normative degree of achievement, the establishment of teaching plan normative degree of achievement
7	Implementation of teaching	The completion rate of course absence and the completion rate of class teaching log
8	The teaching effect	The achievement rate of excellent in the course, the achievement rate of excellent in the supervision class, the achievement rate of excellent in the evaluation of teaching and learning, the achievement rate of excellent in the graduation project

9	For enrollment	The first choice of major admission rate, professional admission score ranking, the number of students in the major, the number of professional distribution
10	Resources Guarantee	The number of professional teachers, books and periodicals related to professional groups, teaching funds of professional groups, and professional resources Level and number of resources
11	The construction of effective	Professional teaching and research projects, professional teaching and research projects, professional research achievements, professional social staff training, courses and professional Degree (core courses)

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### **Improve the organization system of nursing professional diagnosis and reform**

The college established a quality assurance leadership organization, namely, the party committee leader, the president command, and the quality assurance committee. As the quality control department, the Quality Control Office (the Teaching Supervision Office) is responsible for quality assurance system design, assessment and overall quality control, and the administrative functions to ensure quality improvement.

The college further clarifies the division of labor and responsibilities of the teaching and guidance work committee, the academic affairs office, and the quality control office (teaching supervision department); perfects the quality management organization, standardizes the work procedures, clarifies the work responsibilities, and exerts its main role in the quality assurance system; Professional responsible person (professional leader), course leader and class teacher's quality assurance responsibility (Han & Liu, 2018).



### **Establish and improve the quality assurance system for internal diagnosis and reform**

The school's internal quality assurance system was established on a regular basis based on industrial upgrading, technological advancement, corporate needs, and the implementation of school enrollment, employment, and professional talent development programs. Establish a graduate tracking and feedback mechanism, and conduct professional research on employers and graduates as the main research objects every year, through the statistics of students' satisfaction, graduate satisfaction, parental satisfaction, government departments, and society. Feedback to investigate and grasp the feedback on the quality of the school's training after the graduates enter the society. According to the "Target-Standard-Operation-Diagnosis-Improvement" 8-shaped spiral progressive diagnosis and modification requirements, the operation and effectiveness of professional quality control points are regularly diagnosed and improved independently to form a diagnostic report. At the same time, the investigation and diagnosis report were analyzed to find out the main problems affecting the development of the nursing profession, analyze the causes of the problems, and form a targeted rectification plan and implement it. Through the construction of dynamic, open and continuous improvement of professional diagnosis and improvement work mechanism, the professional can continuously feedback and evaluate the effect of education and teaching work in the normalized teaching process. Identify weaknesses that need improvement. Improve the professional teaching related elements and links of the right medicine (Li & Sun, 2008).

### **Improve professional diagnosis and improvement support platform**

The college has accelerated the development of relevant informationization construction projects, with a planned investment of more than 16 million yuan. In 2017, it completed an investment of 12.77 million yuan, improved the information infrastructure, and carried out the construction of information system and school-based talent training status data platform, integrating resources and opening up information. Isolated

islands provide platform support for nursing professional diagnosis and treatment. Make full use of modern information technology, establish a data management system for talent training work status, timely grasp and analyze the status of talent training, and publish core data for personnel training according to laws and regulations. Through the data platform to present the school's school conditions, majors, courses, teachers, students' current situation, teaching management and teaching research, social evaluation, etc., provide data for professional diagnosis and revision work, and ensure the authenticity of the diagnosis object and diagnostic content. And the correctness of the diagnosis. Enhance the early warning and statistical analysis functions of the data management platform to provide information technology support for diagnosis and reform network and decision-making by superior departments (Gong, 2015).

## **IMPLEMENTATION**

### **1. Institutional mechanism construction**

Deepen the integration of production and education, establish a system of school-enterprise cooperation, and under the leadership of the College and the Teaching Steering Committee, continuously improve the functions of the Nursing Professional Group Construction Committee and the professional construction committees, and give full play to the two majors and three directions in the nursing brand professional group. Leading the demonstration role, integrating multi-party resources, school and enterprise participate in the whole process of talent cultivation, and achieve the goal of "talent education, process co-management, and achievement sharing". Establish a mixed-ownership Sunshine Health Management Institute and improve the management mechanism of the Sunshine Health Management Institute. Further explore the "school-enterprise cooperation, post-internship, work-study combination, order training" suitable for the development of the school. In response to the practical teaching requirements of the nursing profession, the existing internship bases were optimized and adjusted, and 60 internship bases with reasonable layout, excellent conditions

and close cooperation, and three famous training bases were formed. Continuously strengthen the teaching connotation construction of the practical training base, increase the management of the cooperation and construction of the practice base, and strengthen the educational function of the practice base.

## **2. Innovative talent training mode**

Establish a "health and education integration" education platform, innovate the medical education and education system, improve the teaching quality assurance institutions and operational mechanisms, and form a kind of talent co-education, process co-management, achievement sharing, and responsibility sharing between schools and hospitals. School mechanism. Strengthen cooperation between schools and colleges, combine work and study, and integrate curriculum and evidence, and jointly promote the reform of the training model for professional groups. Cooperate with Sunshine Insurance Group to form a mixed-ownership sunshine health management company, set up Sunshine Health Management College, cooperate with Sunshine Fusion Hospital, Sunshine and Pension Co., Ltd. to jointly build a sunshine special nursing talent training system. Signed a joint training agreement with Zhucheng People's Hospital and Pingdu People's Hospital.

## **3. A combination of dual-teaching teaching team**

Established and improved the growth and incentive mechanism of the "double-type" teacher team, implemented the dual-professional leadership system, carried out teacher training and corporate practice, and encouraged teachers to carry out teaching research, teaching reform, technology research and development and social services, and establish part-time jobs. The teacher library is updated dynamically, focusing on the construction of teachers' professional ethics. Analyze the current situation of the teaching staff, and formulate an annual implementation plan and strictly implement it (Han, Wu &, Zhang, 2009).

There are 2 professional teaching teams in the professional group of nursing professional group. There are 125 professional

teaching teams in the professional group. Among them, 65 are full-time teachers, accounting for 52%, and 60 are part-time teachers from industry enterprises, accounting for 48%. Part-time teachers are mainly from the frontline of clinical nursing, with intermediate and above professional and technical positions, all with nurses practicing qualifications, with a strong theoretical foundation and skilled nursing skills, undertaking part of the practical skills course teaching and off-campus practice teaching. It has formed an echelon structure with special combination, old and middle-aged collocation, significant effect of cross-border banding, and cross-disciplinary structure, which provides a strong talent guarantee for professional group construction.

#### **4. Professional teaching resource library construction**

Systematic analysis of student employment group and career position ability, facing different learning objects, overall planning resource pool construction, relying on the college online education comprehensive platform, building nursing professional group resources content, promoting the application and sharing of quality education teaching resources. There are 5 provincial-level quality resource sharing courses and 10 provincial-level boutique resource sharing courses, which laid the foundation for the reform of online and offline mixed teaching modes.

#### **5. Improve teaching mode and teaching methods**

Strengthen teaching research and implement teaching modes such as project teaching, case teaching, situational teaching, and work process-oriented teaching. We will promote the in-depth integration of information technology and education, carry out the reform of online and offline mixed teaching modes, and carry out the reform of the teaching model and assessment mode of standardized patients. Adhere to doing middle school, doing middle school, teaching one, and teaching based on job work.

#### **6. Actively participate in social services**

For the nursing industry and regional economic and social development, relying on the WuyunLiuqi Research Base, the P-ISPAN test base, the Medical Care Integration Alliance, and the

Weifang City Pension Service Industry and Education Alliance, etc., actively carry out vocational training, continuing education, technical services, science education and “Five projects” such as health services. Strengthen cooperation between industry, university and research institutes, and carry out research work for the purpose of application. Our school was approved by Weifang City Personnel Examination Center as the vocational skill appraisal base of Weifang City Health Industry. Many teachers in the team have qualifications for nursing staff, nursing staff, pensioners, Weifang nursery professional skills appraisers, nutrition lecturers and other qualifications. Since 2013, the school has used the excellent teachers and nursing training bases. Nearly 2,000 person-times of training and vocational skills appraisal for general practitioners, old-age caregivers, baby nurses, and public dietitians. In addition, we also undertake a large number of teaching tasks such as adult education and social examination training. These have not only achieved good economic and social benefits, but also increased the visibility of the nursing profession.

## **Effect**

### **1. Professional brand effect is highlighted**

The nursing profession is the first professional training course for the higher vocational colleges and undergraduate colleges in the province. In 2018, the nursing professional group was approved by the Shandong Provincial Department of Education as a professional group of higher vocational colleges. The specialization class of militarization management of nursing profession is the first in the college. The students are mainly employed in the military hospitals, and the integration of internship and employment is implemented. It is determined by the Shandong Provincial Health and Health Commission as the provincial health system service brand.

### **2. Team building results are fruitful**

We have built a team of "double-type" teachers with exquisite skills and a first-class "one-five-wing" pattern in the province. “One” means building a teaching team with provincial standards.

“Five Wings” refers to strengthening the construction of professional leaders, key teachers, young teachers, “double-type” teachers and part-time teachers. At present, the nursing professional group has 1 national famous teacher in vocational colleges, 3 provincial-level teaching masters, 1 provincial-level FuminXinglu labor medal, 2 provincial-level jiangong demonstrators, 1 Weifang professional and technical top talent, and Weifang outstanding contribution. There are 1 young and middle-aged experts, 8 teachers in Weifang City, 2 laborers in Weifang City, and 7 excellent instructors in vocational colleges and universities. The team members won 2 first prizes of provincial teaching achievement awards, 1 second prize, 7 provincial-level quality resources sharing courses, and 4 textbooks won the excellent school-based textbook awards of Shandong Vocational Colleges. The teachers have won more than 40 awards in the teaching competitions, information teaching competitions, teacher skills competitions, micro-class competitions and multimedia courseware competitions of colleges and universities in Shandong Province. In 2018, the nursing professional teaching team was identified as the teaching team of the vocational colleges in Shandong Province by the Provincial Department of Education.

### **3. Educating people has achieved remarkable results**

In recent years, students have achieved outstanding results in national and provincial nursing skill competitions, winning 9 first prizes, 7 second prizes and 18 third prizes. The employment rate of graduates is stable at over 96%, the professional counterpart rate is over 90%, and the satisfaction rate of graduates on all work of the school is 100%. Each employer has given favorable comments to our graduates, and the satisfaction rate has reached over 98%.

### **CONCLUSION**

The nursing major of Weifang Nursing Vocational College will give full play to the role of provincial pilot institutions in the quality assurance system of higher vocational colleges.

The professional diagnosis and reform will run through the whole process of professional construction and personnel

training. Taking students as the center, taking talent cultivation needs as an important source of professional diagnosis and reform, and taking results as the guide, do a good job in building top-level design, create a professional diagnosis and reform standard chain, build a data platform, and continuously improve quality and promote formation. A new professional quality assurance system that is in line with international standards. Actively create a new model of high-quality development of medical education that can be learned, can be borrowed, replicated, and promoted.

The reform of professional diagnosis makes the route of professional construction clearer and the development plan more specific. The specific ideas of the reform can effectively solve the problems existing in the reform. Has a strong logic, integrity and sustainability (Wu, 2016). However, due to the limitation of manpower and time, there will be many deficiencies, which need to be adjusted, modified and improved continuously in the future application according to the actual situation, so as to better play the role of "booster" of professional development.

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