

# Exploration of Talent Training in Respiratory Therapy Nursing

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**Abstract:** As an emerging specialty in the past 20 years, respiratory therapy has attracted more attention due to epidemic of novel coronavirus pneumonia. The cultivation of respiratory care personnel is also particularly important. Therefore, our university has decided to set up a respiratory therapy nursing direction to cultivate more talents in this field, and now summarizes the thinking and exploration of talent training in order to promote the cultivation of such talents.

**Keywords:** Respiratory therapy nursing, Curriculum system, Talent training.

## 1. Introduction

With the improvement of the treatment level of critically ill patients, the aging of the population, and the threat of SARS, novel coronavirus pneumonia and other diseases to human health, respiratory therapy has shown its importance, and the demand for respiratory therapy has also increased. Respiratory Care is an emerging discipline with rapid development in recent years. It is composed of Respiratory and critical Care medicine, anesthesia, physical therapy, rehabilitation, nursing, prevention, and so on, focus on cardiopulmonary support and rehabilitation [1]. Respiratory therapy is a practical discipline, including respiratory function assessment, respiratory therapy monitoring, airway management, oxygen therapy, mechanical ventilation therapy, respiratory rehabilitation training and patient health education[2]. As a specialized medical technology discipline, respiratory therapy technology was officially included in the Ministry of Education's "Catalogue of Majors in Ordinary Colleges and Universities" at the beginning of the 20th century. In recent years, "respiratory therapist" has finally been listed among the new professions released by the Ministry of Human Resources and Social Security. The ravages of the new crown pneumonia have made people realize the importance of respiratory therapy again. However, due to the late start of the training of respiratory therapy related talents in China, there is an extreme shortage of respiratory therapy professionals. Therefore, it is very necessary to set up relevant majors and vigorously cultivate talents in respiratory therapy. In 2020, our university opened a respiratory therapy nursing track.

This paper analyzes the opportunities and challenges faced by the training of respiratory therapy nursing talents under the new situation, and further explores the training strategies of respiratory therapy nursing talents from the aspects of faculty construction, curriculum system construction, and training base construction.

## 2. Opportunities and Challenges for The Cultivation of Respiratory Therapy Nursing Talents

At the end of 2019, the ravages of the novel coronavirus pneumonia epidemic caused many people to develop severe respiratory symptoms, and respiratory care nurses were

urgently needed to intervene at that time. In the current post-epidemic era, there is still a small spread of novel coronavirus pneumonia, and the intervention of respiratory therapy nursing talents is also needed. So, our school has carried out the cultivation and exploration of respiratory therapy nursing talents.

## 3. Ideas and Measures for The Cultivation of Respiratory Therapy Nursing Talents

### 3.1. Faculty

#### 3.1.1. Full-time teachers

Establish a comprehensive team of full-time teachers in the direction of respiratory therapy nursing, and the courses in the direction of respiratory therapy are mainly taught by teachers in the course groups of acute and critical care, internal medicine nursing, human form and function, rehabilitation, etc. We support teachers' clinical practice to obtain rich clinical experience and cases, encourage them to go out to study and exchange, and learn the latest knowledge and skills in the field of respiratory therapy.

#### 3.1.2. Part-time faculty and guidance experts

At the beginning of the establishment of the respiratory therapy nursing direction, clinical experts were organized to participate in the talent training program and the formulation of curriculum standards for each course, so as to lay the foundation for the smooth development of the teaching work of each course. At the beginning of the course, clinical respiratory therapists and respiratory rehabilitation therapists were hired as part-time teachers to form a stable team of part-time teachers. In the process of course construction, clinical experts are invited to shoot relevant teaching videos to enrich the course content.

### 3.2. Improve the talent training model

#### 3.2.1. Talent training objectives and training specifications

Talent training goals should be matched with clinical positions. At present, there are respiratory therapists in clinical practice, but there are no respiratory therapy nursing positions, and some respiratory therapy work is basically shared by respiratory therapists and clinical nurses. Therefore, in addition to general nursing knowledge and skills, we also need to master the relevant knowledge and skills of

respiratory therapy nursing. Through the investigation of some respiratory therapy talent training colleges and clinical respiratory therapy nursing jobs inside and outside the province, it is determined that the training goals of respiratory therapy nursing talents in our college are: cultivating firm ideals and beliefs, all-round development of morality, intelligence, physique, aesthetics and labor, with a certain level of science and culture, good humanistic quality, professional ethics and innovation consciousness, craftsmanship spirit of excellence, strong employability and sustainable development ability, mastering the professional knowledge and technical skills, and facing nursing positions in hospitals and other medical and health institutions. High-quality technical and skilled personnel who can diagnose, treat and care for patients with cardiopulmonary insufficiency or abnormalities under the guidance of doctors.

### 3.2.2. Job competency analysis

The term "competency" was first coined by the famous psychologist Mike Leland at Harvard University in 1973 and is an important factor in distinguishing the excellent from the average at work [3]. After graduation, students in the field of respiratory therapy nursing are mainly employed in ICU, CCU and other units of general hospitals. According to the job analysis, the proposed students should have the benchmark competency as follows: ICU, CCU and other units of general hospitals to engage in respiratory therapy positions, and should have the ability to identify and have good communication skills and teamwork spirit, be able to choose respiratory therapy methods according to the condition, be proficient in the adjustment of machine mode and parameters, monitor respiratory physiological function, guide respiratory rehabilitation function exercise, have a strong sense of innovation and ability, be good at learning new knowledge and new technology, and grasp new progress in a timely manner.

### 3.2.3. Construction of "platform + post direction" curriculum system

The core competencies that students should possess in the field of respiratory therapy nursing are: clinical decision-making ability, innovation ability, career planning ability, nursing operation ability, communication and cooperation ability, problem solving ability and information literacy, critical thinking ability, health education and teaching and training ability, etc. Through the theory and practice of professional initiation education, social practice activities, ideological and political courses and nursing courses, students are equipped with the above abilities and qualities.

Based on the vocational skills of nursing positions, students need to highlight the ability to cultivate respiratory physiology, respiratory therapy and respiratory rehabilitation on the basis of learning the knowledge and skills required for nursing positions. Therefore, the curriculum is set up in a parallel mode of nursing platform courses + respiratory therapy nursing post courses, and the respiratory therapy nursing post direction courses mainly include: respiratory physiology, mechanical ventilation, respiratory rehabilitation and others.

### 3.2.4. Teaching reform

In the course teaching, the teaching modes and methods such as situational mode, case teaching, and integration of theory and practice are adopted to cultivate students' clinical thinking ability. Assessment is an indispensable and important part of teaching work, and the assessment and

evaluation method directly affects and determines students' attitude and enthusiasm for learning, thus affecting the overall teaching effect and quality [4]. Teaching process assessment is an important way and means for teachers to understand and grasp students' learning situation in a timely manner, which can motivate and supervise students [5-7]. Therefore, in the evaluation of job direction courses, the combination of process evaluation + summative evaluation is adopted to increase the proportion of process evaluation in the evaluation system and highlight the cultivation of students' job competency.

## 3.3. Construction of internship and training bases

### 3.3.1. Construction of on-campus training base

According to the training needs of the workplace, set up an experimental training base, establish an ICU simulation ward, use multimedia video teaching and high-end instruments (advanced simulation simulator, simulated lung, invasive positive pressure ventilator, non-invasive ventilator, transport ventilator, etc.) to provide a realistic training environment, complete the simulation of training and assessment, and use scenario simulation, PBL (problem-based learning teaching method), CBS (clinical case-oriented teaching method) and other teaching methods to improve students' clinical first aid, respiratory therapy, respiratory rehabilitation, teamwork skills and self-confidence, and improve students' clinical thinking, judgment skills, so as to improve learning outcomes.

### 3.3.2. Construction of off-campus training bases

Relying on the eight "clinical colleges", the implementation of school-hospital collaboration, we carry out more effective cooperation and more in-depth reform exploration in nursing research, technology research and development and services, talent training, teaching team building, personnel mutual employment and other aspects.

## 4. Summary

The cultivation of respiratory therapy nursing talents has a long way to go. The improvement of the quality of talent training is endless, and we will continue to explore and move forward, optimize the talent training program, set up a more reasonable curriculum system, and cultivate higher quality respiratory therapy nursing talents.

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