

Reflection on Improving the Efficiency of Standardized Training for Resident Physicians in Respiratory Medicine

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Abstract: Significant achievements have been made in the standardized training of resident physicians in China, but currently, there are still problems with weak teaching staff, rigid teaching methods, monotonous teaching content, and one-sided assessment indicators in the standardized training of resident physicians in respiratory medicine. The quality of standardized training for resident respiratory physicians can be improved through optimizing the teaching staff, applying new teaching methods to cultivate students' clinical, scientific research, and humanistic comprehensive qualities.

Keywords: Respiratory Medicine; Standardization of Resident Physicians; Teaching Methods; Clinical Competence.

1. Introduction

Standardized training for resident physicians (referred to as standardized training) is the first step for medical students to truly enter clinical practice after graduation. It is completely different from clinical internships and internships in colleges and universities. It focuses on cultivating the ability to think independently and flexibly apply basic theories to solve practical clinical problems. It plays an important role in the medical career and is also a necessary stage for clinical physicians to improve their diagnostic and treatment skills. The standardized training of resident physicians in respiratory medicine has practical problems such as multiple teaching projects, high difficulty, and limited time. For trained physicians, it is not only necessary to master theoretical knowledge proficiently, but also to develop meticulous clinical thinking, strong clinical skills, and strong hands-on abilities. Therefore, it is particularly important to improve teaching modes and enhance training effectiveness. Starting from clinical needs, this article proposes existing problems and practical optimization suggestions to effectively improve the quality of standardized training for respiratory resident physicians.

2. Problems with Standardized Training for Resident Physicians in Respiratory Medicine

2.1. Weak Teaching Staff

With the comprehensive implementation of standardized training for resident physicians, the number of trained physicians is increasing, and in comparison, the development of the scale of teaching teachers is overshadowed. The teaching staff are mostly middle-aged physicians, who are in a critical period of career development. Their medical, scientific research, teaching, further education, training and other businesses are very busy, and their teaching time is extremely limited, resulting in uneven levels of teaching skills and the inability to ensure high-quality teaching. At present, nationwide, the qualification of teaching teachers is obtained

based on other conditions such as professional title promotion, and there is no specialized standardized training and assessment index formed. In the process of standardized training and teaching, the level and quality of teaching are not included in a specialized assessment and evaluation system, resulting in uneven quality of teaching, which seriously affects the improvement of teacher level. In addition, the teaching awareness of teachers is another important factor that seriously affects the quality of teaching. As mentioned earlier, due to the limited time and energy of teachers, their teaching level varies, and some teachers have weak teaching awareness. They cannot timely discover knowledge points in clinical work and intentionally remind trainees, resulting in trainees missing the best learning opportunities; Not daring to let students perform common operations in order to increase their clinical experience and practical skills, resulting in limited opportunities for practical operations and difficulties in improving practical skills.

2.2. Stubborn Teaching Methods and Monotonous Teaching Content

Even with new teaching methods such as problem-based learning (PBL), case-based learning (CBL), and integrated teaching models centered on organ systems, the emergence of organizational system based learning (OBL) and other methods continues, but our investigation found that most departments still use the standardized training and teaching methods from several years ago [3], such as teaching lectures, where teachers are lecturing and students are listening, and important content is memorized by rote. They have not developed independent thinking and good clinical thinking abilities, and are unable to solve problems independently. The wonder of clinical medicine lies in its uncertainty, which is also its most attractive aspect. The uniform knowledge in books may have different situations for everyone. Only by combining theoretical knowledge with practice, learning and growing in practice, is the original intention and ultimate goal of clinical medicine. Therefore, in daily teaching work, teaching teachers should fully integrate the characteristics of divergent thinking into the trainees, think about problems

from multiple dimensions, and ask why when encountering problems. This is very beneficial for consolidating basic knowledge and improving their own diagnostic and therapeutic abilities. However, the current problem with respiratory medicine is that the teaching content is too monotonous, using the unchanged clinical manifestations, laboratory tests, diagnosis, differential diagnosis, treatment principles, etc. written in books for many years, which leads to students being unable to deeply understand the characteristics of respiratory system diseases, unable to fully connect theoretical knowledge with practice, monotonous and uninteresting learning content, and greatly affecting their interest in learning. At present, there is still a problem that the teaching content of the teacher to the students, apart from clinical knowledge, rarely involves the cultivation of scientific research thinking, skills and abilities in doctor-patient communication, etc. In recent years, the development of respiratory science has been very rapid, with various new drugs, treatment methods, and treatment methods emerging one after another. Only with a keen sense of scientific research can problems be quickly discovered, and then scientific methods can be used for research and problem-solving. Besides medical education, humanities education is also lacking in modern medical education. Medical science and medical humanities are complementary and win-win relationships. Modern medical education emphasizes the strengthening of humanistic literacy education for medical students, which not only improves disease prognosis, but also has significant practical significance in promoting doctor-patient harmony and reducing medical disputes. However, for a long time, medical education in China has mainly focused on cultivating the professional and technical abilities of medical students, neglecting the education of humanistic qualities. The existing humanities curriculum in domestic medical colleges is relatively weak; And there are shortcomings in humanities courses that emphasize theory over practice, lacking integration with clinical practice. During the critical stage of re education after graduation - the standardized training period for resident physicians, although the concept and content of humanistic education have also begun to be integrated, its level of attention is still insufficient, lacking systematicity, standardization, and continuity. Therefore, the humanistic quality education of students is not optimistic. How to improve the clinical and scientific research abilities of residents during their residency training period, while also enhancing their humanistic literacy, make doctors more humane, and cultivate talents with higher levels of comprehensive quality, is worth further exploration.

2.3. One Sidedness of Assessment Indicators

The ultimate goal of medical education in China is to cultivate comprehensive clinical talents in the 21st century who meet the ultimate goal of modern medical education. The quality of regulated trainees should not only include clinical ability, but also scientific research quality, humanistic quality, and so on. However, so far, theoretical written exams and routine operations have been used in the assessment of respiratory internal medicine. However, there is relatively little assessment of clinical communication ability, scientific research ability, and humanistic literacy related to the comprehensive quality of regulated trainees.

3. Optimization Suggestions for Standardized Training of Resident Physicians in Respiratory Medicine

3.1. Optimize the Structure of the Teaching Staff

Allowing a portion of junior teachers to participate and allocating a certain proportion of the two can effectively alleviate the teaching pressure on senior teachers and give them sufficient time to improve their teaching skills. During this process, young teachers can share some light tasks, such as training and assessment of lung puncture, which not only reduces the pressure on senior teachers, but also has certain benefits in exercising young teachers' teaching ability and thinking. While increasing the number of teachers, it is also necessary to improve their teaching skills. It is recommended to regularly conduct online or offline training and learning on teaching skills for teachers, communicate and exchange ideas with excellent respiratory internal medicine training bases, learn advanced teaching concepts and methods, and invite dedicated personnel for guidance. After the training, each person should make a plan to clarify how the learned content will be applied in their subsequent teaching. In addition, it is also necessary to establish a comprehensive quantitative assessment and evaluation system for teaching teachers. In addition to the required 360 degree evaluation, whether there is exercise and penetration of scientific research thinking, humanistic literacy, and doctor-patient communication for students is also included in the evaluation. Through the above evaluation, the comprehensive teaching skills of the teaching staff have been comprehensively improved.

3.2. Joint Application of Teaching Methods and Multi-Dimensional Cultivation of Diagnosis and Treatment Ideas

In the teaching process, it is necessary to combine the development stage of standardized training for resident physicians and choose appropriate teaching methods based on specific teaching content. Strengthen resident physicians' understanding of disease characteristics from multiple dimensions such as basic theory, practical skills, auxiliary examinations, and diagnosis and treatment progress, and cultivate their diagnostic and treatment thinking abilities. For resident physicians who are newly admitted to clinical practice and receive standardized training for resident physicians, developing standardized consultation, physical examination, and qualitative diagnosis models is the cornerstone of cultivating solid clinical diagnosis and treatment abilities. At this stage, the basic skills training of teaching ward rounds combined with case analysis can effectively combine theoretical knowledge with clinical practice, thereby significantly benefiting resident physicians. The main content of basic skills training is for resident physicians to report medical history, conduct physical examinations, interpret auxiliary examination results, propose targeted diagnosis and qualitative diagnostic analysis, and formulate diagnosis and treatment plans. At the same time, the supervising teacher should point out the non-standard and incomplete reporting of medical history by resident physicians, and provide suggestions for improvement; Identify any omissions or non-standard operations in the physical examination, correct them, and provide correct demonstrations; Clarify the problems encountered during the

diagnosis and treatment process, and supplement with further auxiliary examinations that need to be improved. In addition, resident physicians who receive standardized training for resident physicians can give small lectures on difficult knowledge points in the clinical diagnosis and treatment process, thereby connecting theoretical knowledge with clinical practice. This teaching method starts from clinical problems, which can not only increase knowledge reserves but also stimulate the subjective initiative of resident physicians. For resident physicians who have accumulated certain clinical experience, further case discussions can be conducted.

3.3. Interdisciplinary Joint Teaching to Comprehensively Improve Clinical Abilities

The development of medical imaging and laboratory technology can provide more information for the diagnosis and treatment of diseases, but newly enrolled resident physicians who receive standardized training for resident physicians often lack the ability to interpret imaging and other examination results. How to better interpret the results of auxiliary examinations based on clinical cases is a major challenge. Therefore, it is possible to invite auxiliary departments to hold relevant lectures, such as electrocardiogram, blood gas results, fundus photography, electroencephalogram, and interpretation of sleep monitoring reports. In addition, in clinical practice, it is advocated that resident physicians accompany patients under their supervision to complete relevant examinations. On the one hand, this can improve doctor-patient communication skills, and on the other hand, it can fully understand the indications and contraindications of examinations. Patients in the respiratory department are mostly elderly, with many comorbidities and involving multiple systems, resulting in complex conditions. The current disciplinary system construction focuses on cultivating the diagnosis and treatment thinking of respiratory system diseases. Although the existing rotation plan includes the rotation of highly interdisciplinary departments such as cardiology, respiratory neurology, endocrinology, etc. with respiratory internal medicine, hospitalization in clinical work

Physicians still lack interdisciplinary knowledge. Therefore, in clinical practice, experienced instructors from relevant departments should be frequently invited to give special lectures, fully leveraging the advantages of interdisciplinary joint teaching.

3.4. Putting Patient Management at the Center and Strengthening Communication Skills Cultivation

Compared with the cultivation of clinical skills and theoretical knowledge, the cultivation of doctor-patient communication skills among resident physicians is currently

slightly weak and needs further improvement. On the one hand, the teaching teacher should help resident physicians build confidence and encourage them to communicate more with patients or their families; On the other hand, in the guidance process, it is necessary to combine specific cases, analyze the characteristics of the disease, explain in detail the necessity of auxiliary examinations, and develop a diagnosis and treatment plan, so that resident physicians can better convey the condition and diagnosis and treatment information to patients. For resident physicians who receive standardized training for resident physicians, on the one hand, it is necessary to fully understand the patient's situation, be familiar with the diagnosis and treatment plan and prognosis of the disease, and thus communicate better with the patient's family members; On the other hand, when encountering obstacles in the communication process, one should have a sense of self-protection, report to the teaching teacher in a timely manner, and actively seek help.

4. Conclusion

Due to the complexity of diagnosis and treatment, as well as the diversity of skills, respiratory medicine has put forward higher requirements for resident physicians who receive standardized training. This article combines their growth patterns and learning needs, and proposes suggestions for multi-stage assessment, multi-dimensional teaching, interdisciplinary collaboration, and multi-dimensional ability cultivation. The aim is to build a team of respiratory medicine physicians with high-level job competence, So as to better promote the development of the medical and health industry.

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