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Reform and Implementation of Teaching Management for Medical Graduate Students

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Abstract

With the expansion of medical graduate enrollment, there are some problems in graduate teaching management, such as shortage of faculty, insufficient funding, and single assessment management. This can be solved by improving the quality of enrollment, strengthening process management and quality monitoring, enhancing the quality of mentors, and building a management team. This provides theoretical support and practical guidance for the management of graduate education in medical colleges, which helps to improve the quality of graduate education and cultivate more high-quality medical talents for the national healthcare industry.

Keywords

Medical Graduate Education, Quality Management, Reform, Teacher Optimization, Enrollment Quality

1. Introduction

With the increasing emphasis and investment in medical education by the state, the enrollment scale of graduate students in medical college of Yangtze University has increased year by year [1]. Taking the Faculty of Medicine as an example, the enrollment of graduate students in 2020 was 170, 199 in 2021, 189 in 2022, 198 in 2023, and 204 in 2024 (Table 1). The rapid development of the number and scale of graduate students has made the professional directions and the forms of education more diverse. However, the growth of existing educational resources is relatively slow, which brings great challenges to the teaching management of graduate students in medical schools. On the one hand, the number of graduate students has increased, and there are great differences in their age, social experience, lifestyle, etc., and the structure of the target group is becoming more and more

complex. On the other hand, the teaching management model needs to adapt to the development requirements of the new era and continuously innovate and optimize to improve the quality of postgraduate training.

Table 1. The enrollment of graduate students from 2020 to 2024.

Year	2020	2021	2022	2023	2024
Students	170	199	189	198	204

This study aims to explore effective strategies to improve the teaching and management level of postgraduate students in medical schools and cultivate high-quality medical talents. Through the analysis of the current situation of postgraduate teaching management in medical colleges, the existing problems are identified and targeted solutions are proposed. Specifically, we will strengthen quality education and improve academic standards; promote the reform of the graduate tutor system and optimize the management model; strengthen academic exchanges and cooperation to broaden international perspectives; strengthen student management and improve the quality of education. Through these measures, we will promote the development of medical postgraduate education and management, improve the academic level and comprehensive quality of medical postgraduate students, and cultivate more outstanding professionals for the country's medical and health undertakings.

2. Theoretical Basis

2.1. Overview of Educational Management Theory

Educational management theories play a vital role in graduate teaching. With the continuous development of modern educational management concepts, concepts such as people-oriented and total quality management have gradually been widely used in graduate teaching.

At our university, the people-oriented philosophy is reflected in many aspects [2]. The school pays attention to the individual needs of graduate students and provides personalized training programs for graduate students with different backgrounds. For example, for on-the-job graduate students with work experience, the university will reasonably arrange the courses and practical links according to their actual work situation, so that they can successfully complete their studies without affecting their work. For graduate students, the school provides specialized language tutoring and adaptation courses to help them better integrate into the learning environment. In addition, the university pays attention to the mental health of graduate students, and sets up psychological counseling services to provide psychological support for them. These initiatives fully embody the concept of people-oriented education, which helps to improve the learning enthusiasm and satisfaction of graduate students.

Total quality management has also been implemented in the course setting and

teaching of graduate students [3]. In terms of curriculum setting, the school carefully designs the curriculum system according to the characteristics of the medical profession and the needs of society. The course covers many aspects such as basic medical knowledge, professional frontier knowledge, and interdisciplinary knowledge to meet the special requirements of the knowledge structure of medical graduate students. At the same time, the school also pays attention to the practicality of the curriculum, and improves the practical ability of graduate students through laboratory courses, clinical internships, and practice. In the teaching process, the school implements a strict teaching quality monitoring mechanism. Teachers are expected to conduct regular teaching evaluations, and students can also evaluate teachers' teaching. The school will also organize teaching supervisors to conduct spot checks on the teaching process to ensure the quality of teaching. In addition, the university has also strengthened the quality management of graduate theses, from topic selection, topic opening, mid-term inspection to thesis defense. There are strict specifications and requirements to ensure the quality of graduation theses.

2.2. Analysis of the Characteristics of Graduate Education

The medical profession is special, and graduate education also has its own unique requirements in terms of knowledge structure and practical ability [4].

Medical graduate students need to have solid professional knowledge and interdisciplinary knowledge. Medicine is a highly comprehensive discipline that involves many disciplines such as biology, chemistry, physics, and psychology. Therefore, medical graduate students should not only master the knowledge of their own specialty, but also understand the knowledge of related disciplines in order to better solve problems in clinical practice. For example, when studying cardiovascular diseases, medical graduate students need to understand biology, physiology, pathology, etc., as well as imaging techniques in physics and drug analysis techniques in chemistry. In addition, medical graduate students also need to have certain scientific research ability, be able to carry out scientific research work independently, and contribute to the development of medicine.

Taking clinical practice as an example, the key role of practical ability for medical graduate students is emphasized [5]. Medicine is a highly practical discipline, and clinical practice is an important part of the training of medical graduate students. Through clinical practice, medical graduate students can apply the theoretical knowledge they have learned to practice and improve their clinical skills and diagnostic abilities. At the same time, clinical practice can also cultivate the professional ethics and sense of responsibility of medical graduate students, so that they can better serve patients. For example, in a clinical internship, medical graduate students can participate in the diagnosis and treatment process of patients, learn how to communicate with patients, how to perform physical examinations, how to develop treatment plans, etc. In addition, clinical practice can also provide inspiration and materials for the scientific research work of medical graduate students, and promote the development of medicine.

3. Problems in Graduate Teaching Management

3.1. Teaching Problems

At present, there are problems of singleness and lack of practical training in the teaching of graduate students in medical schools. In terms of curriculum, theoretical teaching dominates, and practical courses are relatively rare. As a result, graduate students lack the ability to practice in clinical practice and apply the theoretical knowledge they have learned to practical work.

In the curriculum, the imbalance between theoretical teaching and practical courses is obvious [6]. On the one hand, there are too many theoretical courses, and the teaching methods are mostly infusion indoctrination, and graduate students passively accept knowledge and lack the ability to think actively and solve problems. For example, in some medical professional courses, teachers explain theoretical knowledge at length in class, while students lack the opportunity to practice it, and their understanding of the knowledge is only at the book level. On the other hand, the practical curriculum is insufficient to meet the practical needs of medical postgraduate training. Medicine is a highly practical discipline, which requires a large number of experiments, internships and other practical links to improve students' clinical skills and ability to work independently. However, due to the lack of practical courses, graduate students are often helpless when faced with practical clinical problems.

At present, there are many drawbacks in the assessment method based on written examinations. This assessment method cannot comprehensively evaluate the academic level and practical ability of graduate students. The written test mainly tests students' memory and understanding of theoretical knowledge, but the assessment of practical operation ability and innovative thinking is insufficient. For example, in some medical graduate assessments, students may score high by rote memorization of theoretical knowledge, but do not perform well in actual clinical practice. In addition, the assessment method based on written examinations can easily lead students to only pay attention to theoretical learning and ignore the cultivation of practical ability, which is not conducive to the all-round development of graduate students.

3.2. An Unsound Employment System

At present, the employment situation of graduate students is severe, but there are many deficiencies in the employment guidance system of medical schools.

Graduate students often have high psychological expectations for employment, but the actual employment situation may be far from the expectation. This gap can easily lead to psychological problems among graduate students, such as arrogance and self-abandonment. For example, after years of professional study, they expect to be able to work in large hospitals or scientific research institutions. However, due to the fierce competition in the job market, some graduate students may not be able to achieve their ideal employment goals, resulting in a psychological gap. In addition, the academic pressure, life burden, marriage and love pressure

faced by graduate students will also increase their psychological burden.

The lack of incentive mechanism for graduate students to start a business is also an aspect of the imperfect employment guidance system. At present, the university tends to provide career guidance for undergraduates, and lacks institutional mechanisms and support measures to encourage graduate students to start their own businesses. In the current context of "mass entrepreneurship and innovation", graduate students, as highly educated talents, have strong innovation ability and entrepreneurial potential. However, due to the lack of entrepreneurial support measures, the entrepreneurial enthusiasm of graduate students cannot be stimulated, and it is difficult to effectively support entrepreneurial projects. For example, some medical graduate students may have entrepreneurial ideas for innovative medical technologies or service models, but it is difficult to put the entrepreneurial ideas into practice due to lack of funds, venues, policy support, etc.

3.3. Outdated Management Concepts and Models

The outdated management concept and the single lag of the model have had a negative impact on the teaching management of graduate students in medical colleges.

In the current management concept, the problem of many mandatory provisions and insufficient services is more prominent. In the process of graduate management, too much emphasis is often placed on the implementation of rules and regulations, while the individual needs and development of students are neglected. This rigid management concept can easily lead to the inhibition of students' enthusiasm and creativity. For example, in terms of graduate course arrangement, research project application, etc., students may not be able to give full play to their interests and specialties due to too strict regulations. In addition, rigid management is also easy to cause contradictions and conflicts between students and administrators, which affects the effectiveness of teaching management.

The difference in management system platform leads to untimely information notification, which is also a manifestation of backward management mode. There are differences in the management system platforms between different colleges and departments, and it is difficult to share information in real time. This leads to waste of resources and duplication of work, which affects the efficiency of teaching management. For example, in the process of graduate student recruitment, training, employment, etc., due to poor information sharing, students may miss important notices and opportunities, and it is difficult for managers to fully understand the situation of students, and cannot provide effective guidance and services in a timely manner.

4. Countermeasures for the Management of Postgraduate Teaching in Medical Colleges

4.1. Innovative Teaching Management Service Platform

Interdisciplinary integration is the key to connotation construction. For example, the intersection of medicine with biology, chemistry, physics and other disciplines

can provide medical graduate students with a broader knowledge horizon and innovative ideas. Taking our university as an example, we have set up interdisciplinary courses such as medicine, chemistry and telecommunications, and introduced cutting-edge technologies in these disciplines into medical research. This kind of curriculum not only enriches students' knowledge structure, but also cultivates students' innovative thinking and interdisciplinary problem-solving skills. Through the setting of interdisciplinary courses, the exchange and cooperation between different disciplines can be promoted, the barriers of disciplines can be broken, and the integration and innovation of knowledge can be realized.

Sending graduate students to study abroad is an important measure to promote international integration [7]. Our university actively selects graduate students to carry out visiting research or joint training in relevant disciplines and laboratories of high-level universities abroad such as University of Wales Trinity Saint David. In this way, students can get in touch with international advanced medical education concepts and scientific research technologies, broaden their international horizons, and improve their overall quality. At the same time, the school also invites foreign experts to give lectures at the school, providing students with opportunities to communicate with international experts. These experiences show that promoting international standards can improve the level of postgraduate teaching and management in medical schools and cultivate medical talents with international competitiveness.

4.2. Strengthen Process Management and Quality Control

A comprehensive examination of students' abilities is essential to ensure the quality of students. In the enrollment process, in addition to the academic performance of students, attention should also be paid to the examination of students' scientific research potential, practical ability and comprehensive quality. For example, research project design and practical operation can be added to the admissions interview to fully understand the student's ability. In this way, excellent students with innovative potential and practical ability can be selected, laying the foundation for improving the quality of postgraduate training.

The elimination mechanism of postgraduate training is of great significance to improve the quality. Establish a strict assessment system to regularly assess the academic performance, scientific research achievements, and practical ability of graduate students. For students who fail to pass the assessment, measures such as warnings, postponement of graduation or elimination will be taken. In this way, students can work harder to study and scientific research and improve their overall quality. At the same time, the elimination mechanism can also motivate teachers to pay more attention to the quality of student training and improve the level of teaching and guidance.

4.3. Improve the Quality of Tutors and the Construction of Management Team

The clear definition of the mentor selection system and job responsibilities is

crucial [8]. Schools and teaching units should further improve the tutor selection system, and set strict requirements in terms of degrees, professional titles, clinical experience, scientific research achievements, etc., to ensure that each tutor has a high academic level and guidance ability. Clarify the job responsibilities of tutors, including teaching guidance, scientific research guidance, ideological and political education, etc. Through the establishment of an effective assessment and evaluation mechanism, the work of tutors is supervised and evaluated, and the tutors are encouraged to perform their duties conscientiously and improve the level of guidance.

It is an important strategy to improve the teaching management level of graduate students by building a management team that combines full-time and part-time work. On the one hand, strengthen the training and assessment of full-time management personnel to improve their professional skills and management level. On the other hand, part-time management personnel, such as excellent graduate tutors, enterprise experts, etc., are hired to provide professional support and practical experience for graduate teaching management. Through the combination of full-time and part-time, the structure of the management team can be optimized, and the management efficiency and service quality can be improved.

4.4. Establish an Incentive Mechanism and Improve the Management System

The transformation of the functions of the graduate school plays an important role in the improvement of management efficiency. The focus of the Graduate School will be shifted from transaction management to objective control and evaluation management, and the autonomy of training management of the department will be increased. Faculties can formulate more flexible training programs and management measures according to their own characteristics and needs, so as to improve the pertinence and effectiveness of management. At the same time, it strengthens the communication and coordination between the graduate school and the departments, forms a good interaction mechanism, and jointly promotes the teaching and management of graduate students.

Incentives such as the establishment of innovation funds can effectively stimulate the enthusiasm of graduate students for scientific research and innovation [9]. A medical school has set up a graduate innovation fund to fund innovative scientific research projects. At the same time, we will carry out the evaluation activities of various scholarships at all levels and reward outstanding graduate students. These incentives not only provide financial support for graduate students, but also improve their sense of honor and achievement, and stimulate their motivation for scientific research and innovation. In addition, the university should also strengthen cooperation with enterprises, provide more scientific research projects and practical opportunities for graduate students, promote the combination of industry, university and research, and improve the innovation ability and practical ability of graduate students.

5. Conclusion

This study deeply analyzes the current situation, problems and countermeasures of postgraduate teaching management in medical schools. In terms of the current situation, with the expansion of enrollment scale and the diversification of student source structure, the teaching management of graduate students in medical schools is facing many challenges. Although the secondary management model has certain advantages, there are also problems such as passive management and insufficient discipline exchange. In terms of teaching resources, the construction of the teaching staff is weak, and the equipment and funds are insufficient. In the teaching process, there is a disconnect between theory and practice, and the assessment method is limited. The employment guidance system is not perfect, and the management concept and model are backward. In response to these problems, a series of countermeasures are proposed: innovate the teaching management service platform [10], attach importance to interdisciplinary integration, and promote international standards; strengthen process management and quality monitoring, improve the quality of enrollment, and introduce an elimination mechanism; improve the quality of tutors and the construction of the management team, clarify the responsibilities of the tutors, and optimize the management team; establish an incentive mechanism and improve the management system, increase management autonomy, and innovate the incentive mechanism for scientific research.

6. Prospects

These studies provide theoretical support and practical guidance for the teaching and management of graduate students in medical colleges, which is helpful to improve the quality of graduate training and cultivate more high-quality medical talents for the national medical and health undertakings.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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