

# The Significance of Laboratory Staffs Construction in Medical Colleges from the Perspective of “New Medicine”

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## Abstract

**Objective:** In order to train new medical talents to meet the needs of modern society, the construction of laboratory staff in colleges and universities is particularly important. **Methods:** Through investigation and interview, we can understand the problems existing in the laboratory construction and laboratory staff of our medical college. **Results:** It is difficult for the experimental department to enroll experimenters with clinical background. At present, the experimenters in the experimental department are older and have low educational level. **Conclusion:** It is necessary to make bold innovation from the management concept and talent management system, introduce high-level laboratory staff, and enhance the enthusiasm of laboratory staff to enhance the management ability and operation efficiency of university laboratories, and lay a foundation for the cultivation of innovative talents in universities.

## Keywords

New Medicine, Laboratory Assistant, Lab Class, Significance, Reform

## 1. Introduction

Medical knowledge is obtained from experiments and verified by experiments, so experimental teaching is an important part of training talents in medical colleges and universities (Tong et al., 2022). As a bridge between theory and experimental teaching, medical experimenter can guarantee the smooth progress of experimental teaching. The role of experimenters in experimental teaching is of great significance for medical professional knowledge (Lian, Lu, Zhao, & Li, 2020). Through the experimental class, students can improve their practical abil-

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ity, deepen the consolidation of theoretical knowledge, and cultivate innovative thinking, so as to lay a foundation for future work practice (Meng & Li, 2021).

The important role of experimenters is reflected in: 1) Experimenters constantly improve their professional ability and actively learn the progress of the preface of various disciplines. Only by fully understanding and mastering the professional theoretical knowledge and experimental technology, can they effectively ensure the teaching quality of medical experiment, improve students' experimental skills and cultivate students' scientific and innovative thinking (Li, Li, & Shi, 2019). 2) The key link of experimental teaching is the preparation before the experiment, in which the experimenter plays a core role, makes full and orderly experimental preparation, and strictly ensures the experimental safety. The experimenter rationalizes the allocation of resources and strives to make full use of experimental equipment and animals, save costs and control the experimental safety. 3) Actively train students' ethical awareness of experimental animal bone and know how to cherish, respect and care for life, and further strengthen the medical ethics training of medical students. 4) The experimenter can actively give advice and suggestions on how to set up comprehensive and design experiments, and make full preparations. He can also participate in the guidance process of experimental data collection and processing, statistics and analysis, which is helpful to cultivate students' innovative spirit and scientific research ability (Cao, 2021).

## **2. The Importance of Laboratory Staff in Medical Colleges to University Laboratories**

As an indispensable part of the school, the laboratory of medical colleges and universities is an important place for teachers and students to conduct scientific research and absorb knowledge, so it is very necessary to strengthen the construction of laboratory staff.

1) Experimenters are very important to the construction, development and management of the laboratory (Jiang, 2017). With the increase of experimental teaching and scientific research tasks in Colleges and universities, in addition to the instruments and equipment in the laboratory, the number of experimental personnel is gradually increasing. When many people share the same laboratory and the same instrument and equipment at the same time, the daily management of the laboratory is extremely important. A reasonable management mode must be formulated to ensure the safe and orderly operation of the laboratory. According to the characteristics of each laboratory, the experimenter needs to formulate the rules and regulations of the laboratory, which is not only the norm to restrict students and teachers, but also the guarantee for the laboratory to move towards the formal road. As an experimenter, we should always maintain the sense of innovation, constantly learn the cutting-edge laboratory management ideas and methods, constantly explore the methods suitable for our own laboratory in practice, and improve the management efficiency. At the same time, we need to constantly innovate experimental teaching methods to meet the needs

of innovative education. Effective innovative teaching methods have an important impact on improving teaching quality and cultivating scientific research talents.

2) Experimenters play an important role in the management and function development of instruments and equipment. The management and function development of instruments and equipment is a long-term and cumbersome work, which directly affects the teaching effect of students and the scientific research work of various projects. Doing a good job of instrument management plays an important role in the future development of the laboratory (Zhao, 2017).

3) The experimenter is the first person responsible for the safety of the laboratory. The safety of the laboratory includes the life safety of teachers and students, the property safety of the laboratory and the safety of the ecological environment. The safety management of the laboratory is the key to ensure the safe operation of the laboratory, and the experimenter is the protector of the laboratory safety.

### 3. Problems in the Construction of Laboratory Staff in Medical Colleges

1) The composition of laboratory staff in medical colleges and universities is unreasonable and laboratory talents are insufficient. The overall educational background of the experimenters is low, their innovation consciousness is not strong, and they lack the consciousness of scientific research competition (Wang, 2017), there are 11 experimenters in our medical college. One experimenter is less than 40 years old, and the others are 40 years old, with an average age of 46.5 years old; 3 have master's degree and 8 have bachelor's degree; 3 senior titles and 8 intermediate titles as shown in Table 1.

2) Experimental teaching has not received due attention, the identity of experimenters themselves and others is low, and the value of experimenters cannot be well reflected.

3) The management and assessment of experimenters needs to be improved. However, some colleges and universities have formulated the assessment and incentive for the experimenter series; it is more formulated with reference to the teacher series. Promotion is too harsh, which places a great burden on the experimenters (Min, 2020). This will cause the experimenter to be indomitable and muddle along. Then it will have a certain adverse impact on the development and construction of school experimental management, and it cannot ensure the sustainable development of the team of University experimenters.

**Table 1.** Distribution characteristics of experimenters.

| Parameters                            | Number |
|---------------------------------------|--------|
| Age ( $\leq 40 / > 40$ )              | 1/10   |
| Education (Master/Bachelor)           | 3/8    |
| Technical title (Senior/Intermediate) | 3/8    |

4) The lack of training and further study of full-time experimenters in medical colleges will not only seriously frustrate the work enthusiasm of full-time experimenters, but also lead to the slow renewal of their knowledge, which will affect the normal experimental teaching and scientific research work.

#### **4. Relevant Countermeasures for the Construction of Laboratory Staff in Medical Colleges**

1) Improve the quality of the laboratory team through multiple channels, introduce highly educated talents, provide various training and learning opportunities, constantly improve business ability, increase knowledge, and improve various laboratory management work. The school organizes experimenters to participate in various experience exchange meetings, laboratory construction meetings, equipment technology training, or invites professionals to the school to carry out in-school training, organize out study, etc. (Sun, 2016).

2) Highlight the importance of the position of the experimenter and enhance professional identity. The full-time laboratory staff shall implement scientific staffing management, further standardize the management of full-time personnel, scientifically calculate the workload, and ensure the stability of the full-time team of the laboratory. According to the work plan and specific training scheme of the laboratory, scientifically and reasonably set the post responsibilities and specifications of full-time laboratory personnel, and pay attention to the reasonable allocation of age, education and professional title. Professional title evaluation should be reasonably inclined to full-time experimenters, and the treatment of full-time experimenters should be improved. Full time experimenters should enjoy the same treatment as teachers at the same level, which plays an important role in the construction and development of full-time experimenters.

3) Encourage experimenters to participate in the development of practical teaching and practical platform. Encourage experimental technicians to carry out relevant technical research, such as encouraging experimental scientific research projects, applying for college students' innovation projects focusing on laboratory activities, large-scale equipment opening projects, self-made instruments and equipment projects, etc. (Liu & Wang, 2017).

#### **5. Conclusion**

Under the perspective of "New Medicine", the construction and development of laboratory staff in medical colleges is particularly important. It closely focuses on the implementation of the healthy China strategy, establishes the concept of "great health", deepens the coordination of medical education, promotes the competency oriented education and teaching reform, optimizes the medical professional structure serving the whole life cycle and the whole process of health, promotes the deep integration of information technology and medical education, builds a first-class medical specialty with Chinese characteristics and world level, cultivates first-class medical talents and serves the construction of healthy

China. The work of the laboratory staff in medical colleges directly affects the normal development of teaching and scientific research activities, as well as the life safety of all teachers and students in the laboratory. Colleges and universities should attach great importance to this project, constantly improve relevant systems, straighten out various relations and implement various measures. The experimenters themselves need to constantly strengthen themselves, grasp both professional technology and professional knowledge, and strive to improve their status. In this way, the experimenter team can play the role of the main force in the practical teaching of colleges and universities, and the construction of experimenter team can be effectively promoted (Xiao, 2020).

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### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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