

# Cultivating Professionalism in Medical Laboratory Students through Ideological and Political Education in the Context of Integrating Medical Ethics and Practice

Shuai Wang\*

Taizhou People's Hospital, Taizhou 225300, Jiangsu, China

*\*Author to whom correspondence should be addressed.*

**Copyright:** © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** Medical laboratory science is an essential component of healthcare services. The quality of laboratory services is not only highly correlated with doctors' theoretical knowledge and practical skills but is also greatly influenced by their professional ethics and ideological standards. Therefore, it is necessary to implement ideological and political education in the curriculum for medical laboratory students, aiming to elevate their ideological and moral standards, enhance their work enthusiasm, and alleviate job burnout. This article explores the positive impact of ideological and political education on cultivating professionalism in medical laboratory students and discusses its application in this context, considering the current situation of professional ethics training for these students.

**Keywords:** Integration of medical ethics and practice; Ideological and political education in curriculum; Medical laboratory students; Professionalism; Teaching strategies

**Online publication:** May 20, 2025

## 1. Introduction

Professionalism is a crucial indicator for evaluating the personal qualities of medical students, which should be emphasized alongside theoretical knowledge and practical skills. As clinical laboratory diagnosis plays a pivotal role in healthcare services, it is imperative to incorporate ideological and political education into the traditional teaching mode for interns. This dual approach aims to enhance both professional skills and humanistic qualities, shifting the limited perception of traditional laboratory practitioners being responsible only for samples towards a people-oriented philosophy. This shift provides interns with the inherent motivation for future career development and is an essential pathway to comprehensively improve the quality of intern teaching, deserving high attention from relevant educators <sup>[1]</sup>.

## **2. Positive impact of ideological and political education on cultivating professionalism in medical laboratory students**

The concept of “a doctor with a benevolent heart” has always been a requirement for medical service providers and an important criterion for evaluating their suitability for the job. However, in the traditional training of undergraduate interns, some teaching methods often overlook the cultivation of humanistic qualities through ideological and political education. Entering a new era, the fine traditions of the Party need to be implemented in various industries, from not taking a single needle or thread from the masses to the spirit of Lei Feng, and further to the perseverance embodied in the aerospace field, all reflecting the importance of ideological and political education. For medical laboratory students, they not only need to possess high professional qualities, such as adequate theoretical knowledge reserves and strengthened practical skills training, but also require lofty morals and ideals. By understanding and prioritizing patients’ needs, they can improve the quality of medical services and optimize doctor-patient relationships. This reflects the high demand for the quality of medical laboratory students in the context of integrating medical ethics and practice. Following the fine tradition of careful planning and consideration for others, medical laboratory interns should also closely follow the Party’s call and strengthen their ideological and political education <sup>[2]</sup>.

The positive impact of ideological and political education in courses on cultivating the professional ethics of medical laboratory students is primarily reflected in shaping their correct concepts and forming a proper outlook on life and values. Medical laboratory students may face many ethical issues in the future. Compared to clinical and nursing professions, although medical laboratory students have fewer opportunities to directly interact with patients, they may still be deeply involved in ethical issues, and the ethical and moral principles required of them are no different. Focusing on the current situation, hospital inspection items often appear in sets, and single-item inspections are very rare. Although packaged inspections can increase the probability of disease diagnosis and provide doctors with more accurate diagnostic references, for patients, it may be accompanied by an increase in burden and make it difficult for patients to truly trust the necessity of the inspection items. In addition, inspection personnel in some hospitals may make mistakes due to work errors, such as failing to carefully check patient information or taking the wrong inspection report, leading to incorrect inspection results, increasing patient troubles, and causing more doctor-patient disputes. This is also the necessity of ideological and political education in courses. The development of related courses is closely related to the professional ethics of medical laboratory students. Based on the perspective of integrating medicine and ethics, medical laboratory students also need to have a people-oriented philosophy, possessing noble medical ethics while improving their professional knowledge <sup>[3]</sup>.

## **3. Current situation of professional ethics cultivation for medical laboratory students**

Focusing on the practical level, currently, various sectors of society generally pay more attention to the moral cultivation of medical laboratory students, but the effect of related training is only satisfactory, and there is still much room for improvement. The reasons are diverse, including both objective and subjective factors. Objectively, some medical laboratory majors focus on improving professional skills as the main training direction in student cultivation, emphasizing skill improvement and not giving due attention to students’ professional ethics in assessments <sup>[4]</sup>. Over time, professional ethics will continue to be marginalized. Although some majors have implemented corresponding ideological and political courses and attach importance to cultivating students’ professional ethics, the teaching methods are relatively traditional and not deeply integrated

with current events, resulting in students only scratching the surface and not deepening their understanding of professional ethics, with obvious formalization. Subjectively, due to the fierce market competition faced by hospitals and the increasing work pressure on medical laboratory students, they also face a higher risk of moral dilemmas. Some medical laboratory students do not attach great importance to the significance of ideological and political education for future career development, failing to equate it with business skills, and have little interest in learning, making it difficult to implement the professional ethics requirements for medical students from the perspective of integrating medicine and ethics <sup>[5]</sup>.

## **4. Ideas for applying ideological and political education in courses to cultivate professional literacy of medical laboratory students**

### **4.1. Clarifying the teaching objectives of ideological and political education in courses**

Medical laboratory teachers and students should pay high attention to ideological and political education in courses from a fundamental perspective. Besides learning basic knowledge, they should form a clear understanding of the importance of ideological and political education in courses and establish lofty ideals. Relevant colleges and majors should clarify the objectives of ideological and political education, enabling students to form correct viewpoints and establish firm beliefs. Furthermore, it is necessary to strengthen students' belief education, making them aware of the positive impact of ideological level on the improvement of professional level, enhancing their sense of responsibility for their positions, and encouraging them to bravely assume their position responsibilities. On this basis, attention should also be paid to cultivating a scientific spirit, enabling students to have a rigorous work style in practice and reducing the risk of making errors in future work <sup>[6]</sup>.

### **4.2. Optimizing the content of ideological and political education in courses**

Reasonable content for ideological and political education in courses can greatly enhance teaching quality. For example, the ideological and political elements of the current course content can be fully explored. When explaining relevant cases and response methods, students can be informed about the development history of relevant inspection technologies. Many researchers have willingly served as stepping stones, contributing to the development of the inspection industry and diligently studying, which is worthy of continuous learning reinforcement for medical laboratory students. This can make students aware of the difficulties in the development of medical laboratory science and help them establish correct work concepts. Medical laboratory majors can also introduce ethics education, enabling medical laboratory students to find a balance between medical technology and patient services in their future work, and truly value and dare to take on their position responsibilities <sup>[7]</sup>.

In addition, a large number of cases should be introduced into the teaching content, allowing medical laboratory students to recognize that inspection work can also shine. Taking hematology inspection projects as an example, teachers can play videos of medical laboratory students donating hematopoietic stem cells to leukemia patients, deepening students' understanding of socialist core values. They can also show work cases of medical students who perform bone marrow cell smear inspections, repeating boring work day after day, to cultivate students' professional ethics of being obscure and dedicated. Furthermore, teachers can introduce the case of Tu Youyou extracting artemisinin, playing documentaries about Tu Youyou's experimental team, allowing students to experience the blow of repeated operation failures and feel the spiritual strength of facing difficulties and working hard. This not only enables students to deepen their familiarity and understanding of inspection work but also shapes their correct professional ethics, making them unafraid of difficulties in their future work <sup>[8]</sup>.

### **4.3. Innovating teaching methods for ideological and political education in courses**

Much of the content in ideological and political education can be relatively dull. If it only involves the imparting of theoretical knowledge, it is likely to reduce students' interest in the lectures, negatively affecting teaching quality. Therefore, teachers need to devote themselves to innovating teaching methods, with students as the main focus, mobilizing their thinking abilities, stimulating their interest in the lectures, and enhancing their sense of participation in the classroom. Teachers can create videos (several minutes long) that reflect ideological and political education in the curriculum through micro-courses, flipped classrooms, and other formats, allowing students to watch freely and express their feelings. For a few ideas, teachers can provide appropriate guidance without blindly criticizing, to avoid damaging students' self-confidence<sup>[9]</sup>. Teachers can also use group work to enable students to collaborate with each other and complete projects together through activities such as themed presentations. This not only helps students to increase their emphasis on ideological and political education in the curriculum but also strengthens teamwork among students. Furthermore, because ideological and political education is closely related to students' future work practices, teachers can adopt role-playing methods, setting up different performance scenarios such as nucleic acid testing during the epidemic, hospital blood routine testing, and parent-child relationship testing. Through role-playing, students can deepen their understanding of the importance of testing work, experience the significance of job responsibilities, and enhance their recognition of their own work value. Teachers can also use the classroom to hold challenge competitions, allowing students to face multiple challenging tasks simultaneously, simulating the high-pressure environment they may encounter in future work, honing their professional skills, and strengthening their sense of identification with professional ethics. Through innovative teaching methods, students' interest in learning will be further mobilized, and they will be able to recognize the importance of professional ethics in fulfilling testing job responsibilities, which is conducive to forming a positive learning cycle for related content<sup>[10]</sup>.

### **4.4. Integrating ideological and political education into practice**

Laboratory medicine courses require a significant amount of practical experience, which can also serve as an opportunity for ideological and political education. Teachers need to deepen their communication with students to understand their difficulties and needs. When students feel bored with repetitive testing operations, teachers can patiently persuade them to recognize that only through repetition can they reduce errors and ensure accuracy. When students are intimidated by complex testing procedures, teachers need to provide appropriate encouragement, motivate students, and inform them that testing equipment and techniques are constantly updating and improving, thereby fostering a learning consciousness and recognizing the necessity of practical learning<sup>[11]</sup>. If students are careless and make frequent errors, teachers must sternly remind them that every test can directly impact patients' diagnosis results, causing unpredictable economic and emotional stress. As laboratory medicine students, they must not only possess excellent professional skills but also maintain a sense of awe for their work, enhancing their rigor and dedication to ensure accurate diagnostic results. In summary, various difficulties encountered by students during practice can serve as ready-made materials for ideological and political education. Teachers need to strengthen communication with students and enhance their understanding to truly fulfill the goals of ideological and political education<sup>[12]</sup>.

## **5. Conclusion**

In summary, ideological and political education is crucial for shaping the future professional ethics of laboratory medicine students. Relevant institutions and departments should emphasize the positive impact of ideological



and political education and address its current inadequacies. This can be achieved by clarifying educational objectives, optimizing educational content, innovating teaching methods, and integrating ideological and political education into practical experiences. These efforts will cultivate laboratory medicine professionals who value both professional skills and ethical standards.

## Disclosure statement

The author declares no conflict of interest.

## References

- [1] Wu S, 2025, Exploring the Path to Improve the Effectiveness of Ideological and Political Education in the Employment and Education of Medical Students. Chinese Scientific Journal Database (Citation Edition) Education Science, 2025(3): 140–143.
- [2] Wang C, Su J, Ye G, et al., 2025, Exploring the Path of Implementing Ideological and Political Education in the Pre-internship Stage of Medical Students under the Background of “Three Comprehensives Education.” Journal of Higher Education, 11(S1): 169–172.
- [3] Chen L, 2025, Research on the Integration of Ideological and Political Education into Medical Biochemistry Teaching. Chinese Scientific Journal Database (Citation Edition) Education Science, 2025(1): 26–29.
- [4] Zhou X, Xu P, Sun Z, 2024, Exploring the Ideological and Political Education in Medical Students’ Professional Courses. Chinese Continuing Medical Education, 16(7): 1–6.
- [5] Liu P, 2025, Exploring Effective Strategies of Curriculum Ideology and Politics in Cultivating Medical Students’ Professional Ethics. Chinese Scientific Journal Database (Full-Text Edition) Education Science, 2025(4): 77–80.
- [6] Zhao X, Zhong Q, Gao L, et al., 2024, The Impact of Flipped Classroom Model Integrated with Ideological and Political Education on the Humanistic Care Ability of Otolaryngology Medical Students. University (Ideological and Political Research), 2024(3): 164–167.
- [7] Li A, Zhao N, Peng P, et al., 2024, Application of Ideological and Political Education Based on Chinese Traditional Culture in Clinical Teaching of Medical Students. Chinese Continuing Medical Education, 16(5): 109–113.
- [8] He F, Ye B, Chen J, 2024, Construction of the Ideological and Political Education Teaching System for Primary Medical Students under the Background of “Double High Plan.” Education Teaching Forum, 2024(46): 165–168.
- [9] Xiao G, Chen W, Diao Y, et al., 2024, Reflections on the Reform of Curriculum Ideological and Political Education in the Employment and Entrepreneurship Education of Medical Students under the Background of “Healthy China.” Progress in Education, 14(8): 908–914.
- [10] Shang G, Zhang Z, Ju B, 2024, Research on Ideological and Political Education of Medical Students Based on Ideological and Political Construction. Chinese Scientific Journal Database (Abstract Edition) Education, 2024(6): 52–55.
- [11] Chen H, 2024, Research on Humanistic Ideology Education in Medical Practice of Medical Students under the Background of Ideological and Political Education. China Science and Technology Economic News Database Education, 2024(3): 194–197.
- [12] Han D, Zheng S, 2025, Exploring the Teaching Strategy of Clinical Microbiological Testing Integrated with Ideological and Political Education. Clinical Education of General Practice, 23(1): 60–63.

### Publisher’s note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.