

Exploration and Practice of Ideological and Political Education in Pharmacology Courses Under the Background of New Medical Sciences

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Abstract: In the wave of the new technological revolution, industrial transformation, and educational reform, cultivating innovative pharmaceutical and health talents for “a strong education nation” and “Healthy China” has become a new challenge for higher medical schools. The questions of “for whom to cultivate, what kind of people to cultivate, and how to cultivate” is a core component of General Secretary Xi Jinping’s important thoughts on education and a significant strategic measure of the National Education Conference. This ideology provides a fundamental answer to these three questions and meets the goal of “whole-process, all-round” education. It has opened up a new chapter in the development of higher education in China. Strengthening the construction of ideological and political education (hereinafter referred to as IPE) in medical schools is an important way to deepen medical education reform. ^[1]

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The “Guidelines for the Construction of Ideological and Political Courses in Institutions of Higher Learning” published by the Ministry of Education clearly points out that moral education for medical students should be a core content of the discipline. Pharmacology serves as a bridge between basic and clinical medicine, as well as medicine and pharmacy. The main objective of this project is to develop pharmaceutical talents. It also extracts the course’s unique ideological and political thoughts and establishes a video case library for IPE. Finally, it offers students safe medication guidance at various stages and locations to ensure people’s health. To guide rational clinical medication decisions and enhance efficacy while lowering toxic side effects, clinical pharmacology, which connects basic research and clinical medicine, primarily evaluates the safety and efficacy of drugs. Clinical pharmacology differs from fundamental pharmacology mainly because it takes a “people-oriented” approach and incorporates a number of moral education factors. Exploring the integration of IPE in clinical pharmacology courses in the new professional setting, therefore, contributes positively to the cultivation of students’ humanistic qualities, innovative spirit, and sense of social responsibility. Students are also encouraged to become “socialist builders and successors with all-round moral, intellectual, physical, aesthetic, and labor development,” and they help to implement “Healthy China,” which in turn promotes the development of innovative medical talent for the new era.

1. Exploration of teaching IPE in Pharmacology Courses

1.1 Remember the original aspiration and missions

Responsibility is an intrinsic requirement for the construction of medical ethics. Pharmacology cultivates medical students' professional sense of responsibility, ensuring rational and safe medication. Professor Xu Shuyun has made significant theoretical and practical contributions to the cultivation of pharmaceutical talents, new drug development, and pharmacological research. He founded the Institute of Clinical Pharmacology at Anhui Medical University and laid the foundation for clinical pharmacology and anti-inflammatory immunopharmacology in China. He invented the "Tail-cuff method" to create a rat model of hypertension and created a mixture of Pogostemon cablin and Ailanthus altissima, which is an antihypertensive medication. Alongside his scientific research, Professor Xu was also dedicated to clinical pharmacology, authoring several important books such as "Twenty Lectures on Clinical Pharmacology," "Clinical Pharmacology," "Modern Applied Clinical Pharmacology," and "Chinese Journal of Clinical Pharmacology," with his book "Experimental Methodology of Pharmacology" becoming a must-read for researchers and educators in the field, frequently cited in national natural science publications. He founded the journal "Chinese Pharmacological Bulletin," which has long been a leading pharmaceutical journal, undertaking multiple new drug clinical trials. The first anti-

inflammatory and immune-regulating medication he developed, total glucosides of paeony capsule (Paeoniflorin), has been widely used in clinical practice and has produced significant social and economic benefits. Students can be guided to embrace Professor Xu's scientific spirit of exploration and innovation, selflessness, and dedication to serving the people by learning from his commitment to medical research and clinical pharmacology. This will enhance their professional mission and social responsibility, as well as strengthen their confidence in their chosen path and culture ^[2].

1.2 Uphold the leadership of the CCP

One of the top experts in Chinese pharmacology is Professor Wei Wei. He was a key contributor to the "COVID-19 Prevention and Control Guidelines," which were drafted during the epidemic and posted on the IUPHAR website under the Chinese Pharmacological Society's name. At an international televised academic seminar, Professor Wei Wei, who was invited by the British Pharmacological Society, presented a talk on the basic and clinical application of emetine for COVID-19. He conducted basic and clinical research on new pneumonia in collaboration with organizations such as the Hefei Institutes of Physical Science, the Anhui Provincial Centre for Disease Control and Prevention, and The First Affiliated Hospital of Anhui Medical University. During this period, rumors regarding specific drugs have been spreading, leading many people to start stockpiling them. In an interview with the media, Professor Wei Wei addressed the public's concerns in a scientific and objective manner. His efforts in providing the public with knowledge about preventing epidemics were crucial in reducing public fear and increasing public awareness. He also utilized his expertise in pharmacology to offer scientific prevention and treatment guidance to students, which strengthened their faith in the leadership of the CCP and motivated them to take on responsibility, thereby enhancing China's power, prosperity, and people's well-being.

2. Teaching and Practice of IPE in Pharmacology Courses

2.1 Goals and syllabus of integrating IPE into courses

In the new IPE teaching model, to cultivate students with the spirit of "respecting life, healing the wounded and rescuing the dying, willing to sacrifice, and boundless love," textbooks should be reorganized and professional talent training plans thoroughly revised. These revisions should incorporate excellent traditional Chinese culture and the core values of socialism into professional education goals, detailing them in every aspect of instruction. Professional course teachers must adopt a student-centered approach in order to truly tailor their teaching to individual needs. For example, drug development in clinical trials is an important component of clinical pharmacology. By introducing the status quo in China, students can recognize the significant progress China has made in independently owning intellectual property rights to drugs. This helps to boost their national confidence and sense of social duty, thereby motivating them to bravely take on responsibilities and maintain a spirit of continuous effort and perseverance.

2.2 Build a high-quality teaching team

Teachers are the cornerstone of a school, responsible for nurturing talents for the CCP and the nation. They play a key role in the ideological and political teaching reform in higher education and are the driving force behind carrying out the crucial task of promoting virtue through education. Based on teaching objectives and the concept of IPE, teaching teams need to adopt appropriate teaching strategies at different time points of instruction. Before class, make effective use of a variety of resources for guided learning; during class, use dynamic multi-angle teaching; after class, participate in multimodal, multidimensional research-based learning; and throughout the process, facilitate communication through multiple channels. To build a clinical pharmacology teaching team that aligns with the new medical landscape, the research team combines direct and flexible recruitment methods. As a result, a faculty team with backgrounds in disciplines such as clinical medicine, pharmacy, materials science, oncology, chemistry, and others are formed. We actively organize outstanding young teachers to participate in academic exchanges at major domestic and foreign universities. Additionally, we regularly organize special lectures on "IPE" and "innovation education," and conduct teaching discussions, collective lesson preparations, and other activities. By adopting a "mentoring by experienced teachers" approach, we continuously enhance the educational abilities of young teachers ^[3].

2.3 Optimize teaching content and methods

Classroom teaching is the main arena for IPE, with students as players. The key to advancing IPE lies in teachers. Clinical pharmacology courses are typically taught by several teachers, each responsible for a portion. Teachers should concentrate on IPE while preparing lessons, selecting ideological elements that fit the personalities of their students and can resonate with them. Next, they should develop a clinical pharmacology teaching design plan within the framework of IPE. In classroom teaching, we employ heuristic, case-based, interactive, discussion-based, and guided teaching methods to ensure students are fully engaged. During classroom teaching, we can also utilize online platforms like China University MOOC, "Rain Classroom," and "Chaoxing" to offer students more options and resources. Through the integration of pre-class, in-class, and extracurricular education, we aim to educate students and make sure they always follow the core value of "putting people

first." This strategy establishes a strong disciplinary basis for furthering the development of "new medical sciences."

3. Conclusion

In summary, promoting "Healthy China" is of great significance to the Chinese Dream, and the construction of new medical sciences is a significant measure of the "Healthy China" initiative. This paper focuses on exploring ideological and political elements in clinical pharmacology, continuously optimizing the current teaching model, and integrating IPE with the entire teaching process and clinical pharmacology teaching. This ensures students have a solid understanding of socialist core values, enhancing their social responsibility and patriotism, and elevating their moral sentiments, ultimately fostering individuals who practice socialist core values. Therefore, enhancing the quality of innovative medical talents is of great importance for the "Healthy China" initiative and ensuring people's health.

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