

Ideological and Political Education in the Course of Cardiovascular Surgery under the Background of New Medical Science

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Abstract: In the context of new medical sciences and under the guidance of national policies on ideological and political education (IPE) in higher education, this paper explores the integration of IPE into the curriculum of Cardiovascular Surgery. The research background is rooted in the need to address the shortcomings of traditional IPE approaches in medical colleges, where the focus has been overly on ideological and political courses without achieving desired outcomes. With the emergence of new medical sciences, there is an urgent need to endow medical students with not only technical skills but also a noble soul and social responsibility. The purpose of this study is to propose effective strategies for integrating IPE into Cardiovascular Surgery courses, aiming to cultivate high-quality medical talents who are both "professional" and "ideologically sound." The research approach involves analyzing existing literature, identifying challenges in incorporating IPE within specialized medical courses, and proposing innovative teaching models such as "genetic" integration, "synaptic" penetration, "transfer" exploration, "immersive" cultivation, and "infectious" nurturing. These models are designed to seamlessly integrate ideological and political content with medical professional knowledge and skills, enhancing students' awareness of the subject, reinforcing their confidence in medical traditions, and cultivating their noble personality and social responsibility.

Keywords: Ideological and Political Education (IPE); Cardiovascular Surgery Curriculum; New Medical Sciences.

1. Introduction

In order to implement General Secretary Xi Jinping's important exposition on education and the spirit of the National Education Conference, implement the "Several Opinions on Deepening the Reform and Innovation of Ideological and Political Education in Schools in the New Era" issued by the General Office of the CPC Central Committee and the General Office of the State Council, integrate Ideological and Political Education (IPE for short) into the talent cultivation system, comprehensively promote the construction of IPE in college courses, give full play to the educational role of each course, improve the quality of talent cultivation in colleges and universities, and promote the construction of IPE in college courses, the Ministry of Education issued the "Guiding Outline for the Construction of Ideological and Political Education in College Courses" in 2020 [1, 2]. Ideological and political education in college courses has become a hot topic in higher education. The IPE in medical colleges has always been dominated by ideological and political courses, which have not achieved good results. The concept of ideological and political education in curriculum proposed by General Secretary Xi Jinping at the National Conference on Ideological and Political Work in Colleges and Universities undoubtedly points out the direction for the implementation of ideological and political work in medical colleges and universities, which is of great guiding significance. It enriches the traditional, tedious and boring ideological and political theory courses with life and vitality, making students' experience more concrete, and greatly optimizing the content and teaching methods of IPE. In terms of ideological and political education, some medical colleges and universities have not paid enough attention, resulting in most students putting scientific and cultural

courses first, ignoring the spirit of humanistic education. For medical colleges and universities, the overall purpose and focus of schooling are placed on medical disciplines, so IPE will be in a weak position. In 2019, the Ministry of Education and relevant departments jointly issued the "Six Excellences and One Top" plan 2.0, mainly promoting the construction of new engineering, new medical, new agricultural, and new liberal arts [3]. The new medical science refers to the integration of traditional medicine with artificial intelligence, big data, intelligent machines and other technologies. It is also a new concept of life and health full-cycle medicine that focuses on treatment and also includes prevention and treatment, health care and wellness, in order to meet the requirements of a new round of technological revolution and industrial transformation [4]. Under this premise, the IPE in the curriculum has endowed the pure "tool person" medical students trained under the background of "new medicine" with a noble soul.

2. "New Medical Sciences" and "Medical Graduate Students" Usher in a New Chapter

On CNKI (China National Knowledge Internet), using "new medical sciences" and "graduate students" as keywords, a total of 109 academic journal articles were retrieved, dating back to 1989. However, the research at that time was limited to medical graduate students. The overall trend of publications is shown in Figure 1:

The graph shows that prior to the introduction of the concept of "new medical sciences," the first paper on medical graduate students was published in 1989, with the second paper not appearing until 1997. Subsequently, the annual publication volume remained within two papers. In 2018,

Shang Lili published the first paper titled "Reflections on Medical Graduate Education in the Context of New Medical Sciences," marking a new chapter in research on medical graduate students under the new medical sciences concept. With 3,115 downloads and 105 citations, it also reached the peak of citations and downloads for new medical sciences research. Since then, research related to medical graduate students has shown a linear upward trend. As of May 2024,

although less than half of the year has passed, the publication volume has already far exceeded any previous year, indicating that future research on medical graduate students in the context of new medical sciences will become a major focus of academic research. During this period, the research keywords "new medical sciences" and "medical graduate students" accounted for 65% of all publications.

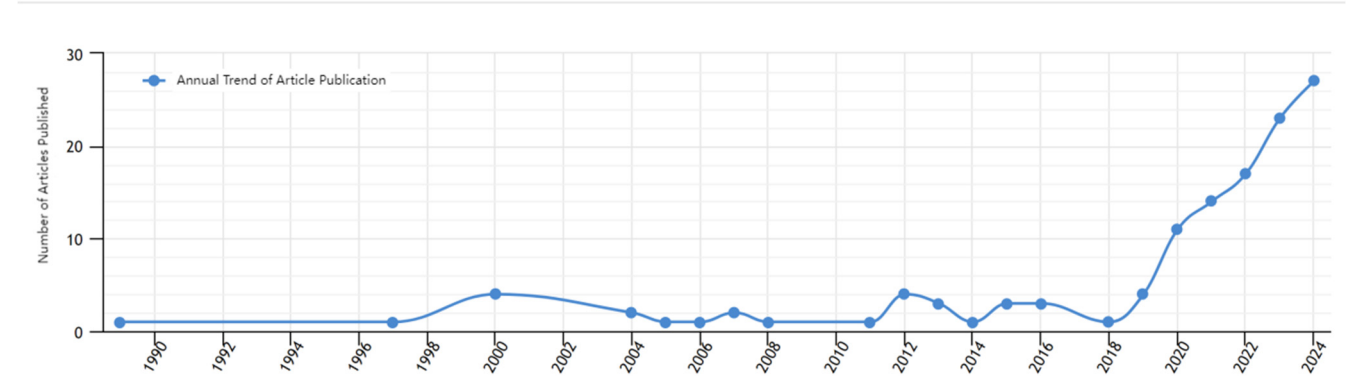


Figure 1. Overall trend of publications

3. Interdisciplinary Research Becomes the New Favorite

Currently, graduate education, especially medical graduate education, faces difficulties in achieving breakthroughs in ideological and political education within the curriculum. Due to the extensive content of specialized courses, it is challenging to incorporate additional ideological and political tasks. In the process of promoting the concept of ideological and political education within the curriculum, some teachers have misunderstood the idea of "ideological and political education in every course" as "ideological and political content in every lecture," resulting in an inversion of priorities where ideological and political content is forcibly added, even detached from the course content. They may cram current

political events into the curriculum, preempt professional course teaching, or prioritize ideological and political content over specialized learning. Additionally, some teachers cobble together ideological and political elements merely to complete tasks, leading to a stiff classroom atmosphere and adverse consequences such as a disconnect between ideological and political elements and values, as well as between ideological and political actions and their effectiveness.

In current research, "interdisciplinary integration" and "talent cultivation" have emerged as new research directions. Limiting oneself solely to studies within medical disciplines would lead to stagnation. According to the literature citation network analysis (see Figure 2), the cross-integration of new medical sciences research with new engineering and new liberal arts disciplines has become the new favorite.

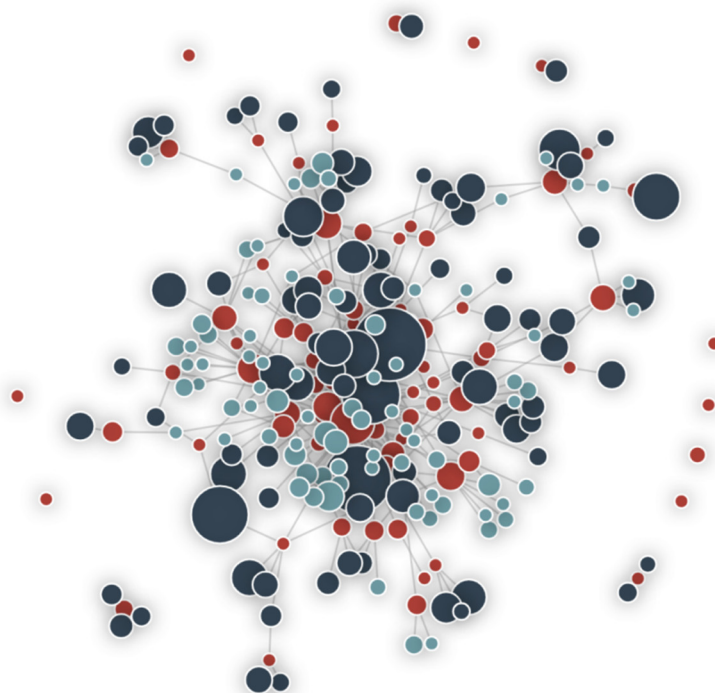


Figure 2. literature citation network analysis

4. IPE in the Course of Cardiovascular Surgery

Cardiovascular surgery aims to strengthen students' awareness of the subject, reinforce their confidence in the fine tradition of "Great Physician with Sincere Skill," their pursuit of values in "High Morality and Superb Skill," and their spirit of medical practitioners characterized by "Respecting Life, Saving Lives, Willing to Sacrifice, and Boundless Love." It cultivates noble personality and social responsibility in aspects such as ideals and beliefs, patriotism, values, scientific spirit, and the spirit of medical practitioners, mainly through the following aspects:

4.1. Forge the Main Force and Demonstrate New Achievements

As the main guide in teaching, teachers should first update their teaching philosophy, cultivate a strong awareness of ideological and political education within courses, and actively engage in the reform of such education. In the process of teaching Cardiac Surgery, they should integrate politics and law education, ideological and political theories and practices, the history of the development of cardiac surgery, advancements in medical science and technology, and progress in health care into the course content. Furthermore, they should actively carry out reforms in teaching methods by integrating various teaching modes such as "online + offline," "centralized + decentralized," "self-study + tutoring," and "sharing + collaboration," thereby forming a multi-layered, multi-dimensional, and three-dimensional teaching model.

The teaching reform models include:

"Genetic" Integration: Identifying the convergence points between "ideological and political content" and medical professional knowledge, and through systematic course design, establishing generative internal connections in a seamless and organically integrated manner, achieving "genetic" integration.

"Synaptic" Penetration: Based on the unique perspectives, theories, and methods of medical disciplines, adopting a strategy of breaking down the whole into parts and highlighting "key points", focusing on achieving deep integration by emphasizing depth.

"Transfer" Exploration: Incorporating ideological and political elements with fresh, real-world issues that students are concerned about as entry points, using the classroom as a starting point, guiding the situation to advantage, and encouraging medical students to conduct extended learning or research individually or in teams [5, 6].

"Immersive" Cultivation: From the day medical students begin their medical studies and research, the discipline culture will influence and shape their deep-level qualities such as ideological understanding, ways of thinking, and value orientations through rigorous training, guidance, and nurturing [7].

"Infectious" Nurturing: Professional teachers lead by example, exerting a benchmarking and subtle influence on students through their loyalty to the party's educational cause, rigorous academic attitudes, scientific academic spirits, and strong sense of discipline and rules.

4.2. Build a Strong Main Battlefield and Activate New Functions

Professional courses serve as the fundamental carrier for the construction of ideology and politics within curriculum. Given their substantial content and the extensive and prolonged interaction between teachers and students, professional courses provide a vast "battlefield" for ideological and political development. In the classroom teaching of Cardiovascular surgery, it is essential to align cardiovascular surgical professional courses with ideological and political courses, seamlessly integrating ideological and political education with the imparting of professional knowledge and the cultivation of abilities, embedding value orientation guidance within the teaching of professional knowledge and ability development [8].

The focus of its reform lies in mining elements: mining from the historical development of cardiac surgery to uncover stories of scientists from ancient and modern times, both domestic and foreign, to inspire students' patriotism and love for their country; mining from major global medical events, such as the handling of public health emergencies, to promote the spirit of Chinese medical practitioners; mining from the achievements of China's health care development since the founding of the People's Republic of China to demonstrate confidence in the path of socialism with Chinese characteristics; mining from major scientific and technological achievement awards to highlight teamwork and the persevering spirit of scientific exploration; and mining from the examples of those around us and alumni to encourage the cultivation of a noble personality.

5. Conclusion

In summary, amidst the vigorous development of IPE reform in curricula today, the reform of ideological and political education in medical graduate courses must also conform to the trend of the times. Starting from the students themselves, from the essence of teaching, and from the concept of education, with talent cultivation as the ultimate goal, we should strive to cultivate high-quality medical talents who are both "professional" and "ideologically sound."

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