

http://ojs.bbwpublisher.com/index.php/IEF

Online ISSN: 2981-8605 Print ISSN 3083-4902

Application of OBE-Oriented Blended Teaching in Ideological and Political Education of Basic Medical Courses

Xueli Gong¹, Ye Yang², Qin Wang²

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: Ideological and political education in courses is an important manifestation of implementing the fundamental task of fostering virtue through education. Basic medical courses serve as the professional foundation for cultivating high-quality medical, pharmaceutical, and nursing talents. Online-offline blended teaching emphasizes students' learning autonomy, while OBE-oriented teaching focuses on student-centeredness and student learning outcomes. Based on the research on the application of OBE-oriented blended teaching in ideological and political education of basic medical courses, this paper improves the curriculum system of ideological and political education in basic medical courses from three aspects: teaching objectives, teaching design and implementation, and teaching assessment and evaluation system, so as to provide a reference for the teaching reform of basic medical courses.

Keywords: OBE concept; Blended teaching; Basic medicine; Ideological and political education in courses

Online publication: December 3, 2025

1. Background of OBE-oriented ideological and political education in basic medical courses

1.1. Concept of OBE

Outcome-based education (OBE) is an educational model centered on students' final learning outcomes. This concept emphasizes that the design and implementation of education should focus on the abilities and qualities that students can achieve after completing their studies, and prioritize measurable learning outcomes over the coverage of traditional teaching content. In basic medical education, the OBE concept helps transform abstract professional literacy and ethical requirements into specific behavioral indicators, making curriculum objectives more concrete and operable [1]. Guided by the OBE concept, teachers can incorporate value guidance objectives

¹Department of Pathophysiology, School of Basic Medicine, Xinjiang Medical University, Urumqi 830000, Xinjiang, China

²Department of Endocrinology, The Second Affiliated Hospital of Xinjiang Medical University, Urumqi 830000, Xinjiang, China

into the learning outcome system at the initial stage of curriculum design, thereby realizing the synchronous development of professional knowledge imparting and the goal of fostering virtue through education. This concept promotes the transformation of teaching from "teacher-centeredness" to "student-centeredness", strengthens students' dominant position, enhances their autonomous learning ability and social responsibility, and provides a systematic guarantee for the training of basic medical talents.

1.2. Connotation of ideological and political education in basic medical courses

As the starting point of medical students' professional learning, basic medical courses not only undertake the important task of imparting basic medical knowledge but also have unique advantages in carrying out ideological and political education ^[2]. By integrating ideological and political education into the teaching process of basic medicine, students can be guided to establish a correct world outlook, outlook on life, and values while acquiring knowledge. In courses such as Histology and Embryology, Physiology, and Pathology, teachers can combine China's medical development achievements, the dedication of researchers, and typical cases in major public health events to help students understand the social responsibility and historical mission of medical work. This enables students to enhance national identity, national pride, and social responsibility while mastering professional knowledge, and strengthens the professional belief of "health entrusted, life entrusted."

The cultivation of medical humanistic quality runs through the whole process of basic medical education, emphasizing the shaping of students' empathy, communication skills, professional ethics, and service awareness [3]. In anatomy teaching, respecting the behavior of body donors is itself a vivid humanistic lesson. Teachers guide students to experience the dignity of life and the warmth of medicine by holding tribute ceremonies and writing gratitude letters. In the use of experimental animals, standardized operation and humane treatment are emphasized to help students form basic reverence for life. Famous doctors' deeds, medical historical facts, and patient stories are interspersed in classes, allowing students to understand that medicine is not only a science but also an art of care from multiple dimensions.

Bioethics education is an indispensable part of ideological and political education in basic medical courses, involving ethical discussions on cutting-edge issues such as gene editing, organ transplantation, human experimentation, and data privacy ^[4]. CRISPR technology cases are introduced in courses such as Biochemistry and Molecular Biology to guide students to think about the moral boundaries behind scientific and technological progress; in Immunology teaching, the protection of the rights and interests of subjects in vaccine research and development is discussed to cultivate students' critical thinking and ethical judgment ability. Through teaching activities such as situational simulation, group debate, and case analysis, students are encouraged to actively participate in the ethical decision-making process, understanding that medical behaviors must not only meet technical standards but also stand the test of ethical scrutiny.

2. Analysis of the current situation of ideological and political education in basic medical courses

The traditional teaching model still dominates, with teachers mostly taking professional knowledge imparting as the core task, lacking systematic design and proactive awareness of integrating ideological and political education ^[5]. Ideological and political education in courses is often simplified to interspersed cases or slogan-style guidance, failing to deeply integrate with disciplinary content, resulting in rigid and superficial ideological

and political elements. Some teachers have misunderstandings about ideological and political education in courses, regarding it as an additional burden, lacking internal motivation, and perfunctorily dealing with it in teaching design, which affects the overall implementation effect.

The setting of teaching objectives is vague, lacking measurable indicators for talent cultivation outcomes. Most courses do not clearly define the specific goals that students should achieve in terms of values, professional literacy, and social responsibility, leading to a lack of direction and pertinence in the process of ideological and political education. Teaching content is disconnected from ideological and political goals, and there is a lack of logical connection between knowledge points and value guidance, making it difficult for students to naturally form value identification in knowledge learning. The update of ideological and political materials in textbooks and teaching resources lags behind, failing to respond to the ideological characteristics and practical concerns of medical students in the new era, which weakens the appeal and persuasion of education [6].

Teaching methods are single, relying on classroom lectures, and lacking interactive and situational design. Students find it difficult to generate emotional resonance in passive acceptance, hindering the process of value internalization. The application of modern information technology is insufficient, and the construction of online resources is weak, which cannot support personalized and independent ideological and political learning needs. Although attempts have been made at blended teaching, most remain at the level of "watching videos online + listening to lectures offline", failing to achieve true teaching integration and process reconstruction, and thus are unable to meet the requirements of student-centered learning outcome achievement under the OBE concept.

The evaluation system emphasizes knowledge over literacy, with assessments still focusing on the mastery of professional knowledge, and insufficient attention is paid to students' ideological growth, ethical judgment ability, humanistic care awareness, and other dimensions. The lack of process evaluation makes it difficult to quantify and provide feedback on ideological and political performance, leading to a lack of basis for teaching improvement. Teachers' own ideological and political teaching capabilities vary, with a lack of systematic training and support mechanisms. The interdisciplinary collaborative education mechanism has not been established, resulting in insufficient communication between basic medical teachers and ideological and political teachers, and difficulties in resource integration. Institutions have inadequate institutional guarantees, imperfect incentive mechanisms, and incomplete quality monitoring systems for ideological and political education in courses, leading to slow progress in teaching reform.

3. Application practice of OBE-oriented blended teaching in ideological and political education of basic medical courses

3.1. Improve the syllabus and integrate ideological and political education into teaching objectives with student outcomes as the orientation

The improvement of the syllabus requires systematic reconstruction around the final learning outcomes that students can achieve, and the design of course objectives focuses on the knowledge, abilities, and value literacy that students possess after completing the learning process. When integrating ideological and political education objectives into basic medical courses, teachers should emphasize outcome-oriented hierarchical settings to ensure a progressive relationship between objectives at all stages [7]. For example, in the early stage of the course, the focus is on cultivating students' basic professional awareness of respecting life and abiding by medical ethics, guiding students to reverence life and cherish health through content such as Anatomy and Histology and Embryology; in the middle stage, combined with modules such as Pathophysiology and

Microbiology, students' social responsibility and scientific spirit are enhanced, enabling them to understand the social factors and ethical dimensions of the occurrence and development of diseases; in the later stage, the value orientation of teamwork, rigorous scholarship, and humanistic care is deepened in comprehensive case analysis and experimental operations, promoting the transformation of value guidance from cognition to behavior.

The concretization of ideological and political education objectives is reflected in the refined design of teaching units. For example, when explaining the process of cellular metabolism, teachers can embed the research process of scientists overcoming difficulties, allowing students to experience the persistent scientific research attitude. Relying on the natural extension of professional knowledge points, the organic integration of ideological and political education and disciplinary content is realized. Each objective corresponds to observable and assessable student performance indicators, such as participation in classroom discussions, value judgment tendencies in case analysis reports, and professional attitudes reflected in experimental logs. In this way, the entire ideological and political education objective system presents a spiral upward structure, with each cycle raising the cognitive level and practical requirements on the original basis. Through continuous learning experiences, students can gradually establish the sense of mission and responsibility that future medical workers should have [8].

3.2. Optimize teaching content and design OBE-oriented blended teaching for ideological and political education

The optimization of teaching content is systematically designed around students' final learning outcomes, highlighting the core principle of "outcome orientation" in the OBE concept. In the pre-class stage, teachers release learning task lists through online platforms, integrating medical humanities, professional ethics, and social responsibility into knowledge points of courses such as Anatomy, Physiology, and Pathology. For example, when explaining human body structure, the dedication spirit of body donors is introduced to guide students to respect life and revere science. Students complete an independent preview by watching customized microlecture videos and reading typical cases, and submit insights in the online discussion area to form initial value cognition. Teachers grasp students' understanding level and ideological dynamics through data analysis, providing precise feedback for classroom teaching ^[9].

The in-class session focuses on interactive inquiry and in-depth inspiration, adopting the flipped classroom model to organize group discussions, case analyses, role-playing, and other activities. Teachers select medical events with ethical controversies or social hot topics as entry points, such as the application boundaries of gene editing technology and the construction of trust in doctor-patient relationships, guiding students to reflect on the moral principles and social responsibilities behind medical behaviors during professional learning. Classroom teaching is no longer limited to knowledge transmission but focuses on thinking guidance and value shaping. Through problem chains, students are driven to actively participate, deepening their understanding of the medical mission. Information technologies such as real-time voting and bullet screen Q&A enhance classroom participation, enabling ideological and political elements to naturally permeate the construction of professional knowledge.

The learning chain is extended after class, expanding learning depth through a combination of online and offline methods. Students complete comprehensive assignments, such as writing commentaries on medical figures' biographies and designing community health education programs, to practice the sense of responsibility as medical professionals in practice. The online platform continues to provide extended resources,

including medical documentaries and reports on the deeds of medical staff on the frontlines of the fight against COVID-19, to strengthen professional identity. Teachers continuously track students' ideological development through homework correction, individual tutoring, and online Q&A, providing positive guidance in a timely manner. The entire teaching process forms a closed loop, with each link serving clear ability objectives and talent cultivation goals, ensuring that students not only master basic knowledge but also possess good professional literacy and social responsibility. Teaching content is no longer a static accumulation of knowledge but a dynamic process of value generation, truly reflecting the student-centered teaching transformation.

3.3. Establish a diversified teaching assessment and evaluation system to comprehensively evaluate ideological and political education

To implement OBE-oriented blended teaching in basic medical courses, it is necessary to construct a corresponding diversified assessment and evaluation system to ensure the achievement of teaching objectives and the reflection of education effectiveness.

Formative evaluation runs through all stages of teaching, dynamically tracking students' learning progress through indicators such as learning participation on online platforms, the quality of discussions, phased test results, and classroom interaction performance. For example, thinking questions related to ideological and political education are set on MOOC or SPOC platforms, guiding students to reflect on medical ethics, professional spirit, and social responsibility. Their answers not only reflect the degree of knowledge understanding but also show the trajectory of value development. Summative evaluation, on the other hand, assesses students' mastery of core knowledge points and their comprehensive application abilities through final examinations, comprehensive case analysis reports, or project presentations [10].

Online and offline evaluation methods complement each other. Online platforms support the automatic collection of learning behavior data, realizing precise management of process records; offline evaluation focuses on emotional and attitudinal performance in face-to-face interactions, such as the sense of responsibility demonstrated in group reports and the rigorous style reflected in experimental courses. This multi-dimensional data collection provides an objective basis for the effective integration of ideological and political elements.

Comprehensive evaluation of ideological and political education is embedded in the entire assessment system, with special moral education observation points established to transform ideological and political goals, such as medical ethics, scientific integrity, and family and country feelings, into specific evaluation indicators. Students' value judgments, sense of social responsibility, and professional identity demonstrated in various tasks are included in the final evaluation, making ideological and political education no longer an additional link but a core component inherent in the entire teaching process. The evaluation results are not only used to determine academic performance but also provide feedback for subsequent teaching improvement, promoting the continuous improvement of teaching quality.

4. Conclusion

In summary, the application of OBE-oriented blended teaching in ideological and political education of basic medical courses fully reflects the student-centered and learning outcome-oriented teaching philosophy, emphasizing students' dominant position and achieving the goal of cultivating high-quality medical, pharmaceutical, and nursing talents. On the one hand, online-offline blended teaching improves students'

autonomous learning ability; on the other hand, ideological and political education shapes students' world outlook, outlook on life, and values. The integration of ideological and political education and blended teaching realizes knowledge imparting, value guidance, and ability enhancement. By improving the syllabus to integrate ideological and political education into teaching objectives with student outcomes as the orientation, optimizing teaching content to explore ideological and political elements in depth, designing OBE-oriented blended teaching for ideological and political education, and establishing a diversified teaching assessment and evaluation system to comprehensively evaluate ideological and political education, this paper conducts optimization reforms on ideological and political education in basic medical courses, providing new ideas for the teaching reform of basic medical courses.

Funding

Educational Teaching Research and Reform Project of Xinjiang Medical University, YGS2023004

Disclosure statement

The author declares no conflict of interest.

References

- [1] Li X, Zhang YN, Chen Qi, et al., 2023, Practice of Ideological and Political Education in Pathology Course at Colleges of Traditional Chinese Medicine—Taking the Introduction as an Example. Chinese Medicine Modern Distance Education of China, 21(8): 19–21.
- [2] Lu GY, Chai LY, Liu YT, et al., 2023, Analysis of Research Hotspots and Trends of Ideological and Political Education in Preventive Medicine Courses in Chinese Colleges and Universities—A Bibliometric Study Based on CiteSpace. Health Vocational Education, 41(7): 99–104.
- [3] Li Y, Huang ZH, Pang QQ, et al., 2023, Exploration and Practice of Ideological and Political Education in Clinical Medicine Courses Under the Background of New Medicine. Health Vocational Education, 41(6): 15–17.
- [4] Wu FF, Bao DD, Li KF, et al., 2023, Exploration and Practice of Ideological and Political Education in Basic Medical Experiment Teaching Under the Background of New Medicine. Health Vocational Education, 41(7): 76–79.
- [5] Tang D, 2023, Exploration on Teaching Reform of Medical Statistics Course Under the Concept of Ideological and Political Education in Courses. China Continuing Medical Education, 15(5): 6–10.
- [6] Li XD, Yang HX, Liu XL, et al., 2023, Practical Exploration of Ideological and Political Education in Medical Cell Biology Course. China Continuing Medical Education, 15(4): 154–157.
- [7] Cong J, 2023, Integration and Practice of Ideological and Political Education in Histology and Embryology Teaching for Undergraduate Nursing Students. Journal of Shenyang Medical College, 25(2): 221–224.
- [8] Li XF, Li P, Wang T, et al., 2023, Multi-dimensional Analysis of Teaching Effect of Ideological and Political Education in Medical Introduction Course. Health Vocational Education, 41(7): 44–48.
- [9] Cui HH, Sun ZL, Zhang D, et al., 2023, Exploration and Practice of Systematic Ideological and Political Education in Veterinary Internal Medicine Teaching. Journal of Animal Science and Veterinary Medicine, 42(2): 123–126.
- [10] Pan P, Wu MF, Qing YH, et al., 2023, Thoughts on the Construction of Ideological and Political Education in

Obstetrics and Gynecology Course and the Selection of Ideological and Political Elements. China Continuing Medical Education, 15(6): 146–149.

Publisher's note

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