

# Exploration on the Teaching Mode of Medical Ethics Assisted by The Second Classroom

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**Abstract:** As the core course of humanistic literacy training in medical education, medical ethics is currently facing the dilemma of insufficient class hours, disconnection between theory and practice, and low student participation. In order to make up for the limitations of traditional classrooms, targeted medical ethics teaching is carried out. Through the second classroom as an auxiliary teaching mode, combined with online resource integration and case practice, students' ethical sensitivity, practical ability and critical thinking are enhanced. At the same time, the attractiveness of the course is enhanced, and the medical ethics education is promoted to develop in a multi-modal and three-dimensional direction.

**Keywords:** The second classroom; medical ethics; teaching reform.

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## 1. Deep Analysis of The Current Dilemma of Medical Ethics Teaching

### 1.1. Class hour compression and teaching content generalization

Medical ethics is marginalized in the curriculum system of most medical colleges and universities, and is often compressed into "elective courses" or "short-term topics"<sup>[1-3]</sup>. The limited class hours force teachers to simplify the teaching content, and only focus on the four principles of traditional ethics (autonomy, non-harm, benefit, justice) to inculcate concepts, while complex issues such as bioethics, public health ethics, and emerging technology ethics are difficult to explore in depth. For example, ethical disputes in cutting-edge fields such as gene editing and artificial intelligence medical care are often simplified as "knowledge points list", and students cannot form a systematic cognition. This kind of generalized teaching leads to the superficial content of the course, which makes it difficult to touch the complexity and contradiction of ethical decision-making.

### 1.2. The double separation of theory and practice

The traditional teaching mode is dominated by theoretical teaching. Case analysis is mostly limited to the classic scenes in textbooks (such as organ distribution, informed consent), and lacks the restoration of real clinical situations. Although students can recite ethical principles, it is difficult to cope with the fuzzy areas in reality. For example, how to balance the conflict between "respect for autonomy" and "protecting the interests of patients" when patients families request to conceal their condition? In addition, the rapid development of medical technology has spawned a large number of new ethical issues (such as the privacy risk of brain-computer interface and the responsibility attribution of AI-assisted diagnosis), but the update of teaching case base lags behind, and the disconnection between theory and practice is increasing<sup>[4,5]</sup>.

### 1.3. Students' cognitive bias and lack of participation

Influenced by the concept of utilitarian learning, some medical students regard medical ethics as a "secondary course unrelated to medical-related examinations", and even think that ethical discussion will interfere with technological advancement. This cognitive bias leads to low classroom participation<sup>[6]</sup>: students are either silent, or only remember the standard answers with an exam-oriented mentality, and rarely take the initiative to question and reflect. The deeper problem is that ethical education fails to effectively connect students' professional identity. Many students think that "ethics is idealized preaching", which has nothing to do with the real scene of interest entanglement and resource limitation in clinical practice.

### 1.4. The tendency of simplification of teaching methods

At present, most classrooms still follow the linear mode of "teacher teaching-student listening" and lack interaction and experience. Although innovative methods such as flipped classroom and scenario simulation have been advocated, they are limited by insufficient teacher training or shortage of resources, and the proportion of practical applications is low<sup>[7]</sup>. For example, ethical debate is often reduced to "positive and negative sides take turns to read the manuscript", and role-playing is also a mere formality due to the lack of real situation support. More seriously, some teachers simplify ethical education as "right and wrong judgment", ignoring the cultivation of students' critical thinking - the essence of ethical dilemmas often lies in the conflict of values rather than absolute right and wrong.

### 1.5. The evaluation system is decoupled from ethical practice ability

The current assessment and evaluation methods focus on standardized tests of theoretical knowledge (such as multiple-choice questions and short-answer questions), while core literacy such as ethical decision-making ability, empathy ability and communication ability are difficult to quantify

through test papers. Even with the introduction of case analysis questions, the scoring criteria tend to be "whether it conforms to the conclusion of the textbook", rather than the rigor of logical argumentation. This evaluation orientation encourages students' examination-oriented thinking: they are good at retelling "what to do", but cannot answer "why to do so" and "how to adjust flexibly in complex situations". For example, in the face of the same ethical conflict, students may need to adopt differentiated solutions in different scenarios (emergency room, chronic disease management), but the existing assessment system cannot test this dynamic decision-making ability.

In order to break through the above dilemma, it is necessary to carry out multi-level collaborative reform from the aspects of curriculum orientation, teaching methods and evaluation mechanism, and the auxiliary role of the second classroom is the key entry point to break the deadlock.

## **2. The Teaching Mode of Medical Ethics Assisted by The Second Classroom**

The second classroom effectively makes up for the deficiency of the first classroom through flexible time arrangement and diversified activity design. Its core path includes the following four aspects.

### **2.1. Using online resource library and self-learning platform**

Students can actively explore real ethical cases (such as medical data privacy disputes) from news, clinical probation or scientific research projects according to their interests or practical needs (such as giving priority to learning doctor-patient communication ethics before clinical practice). On the platform of "Rain Classroom", teachers set up the course of "Medical Ethics". Students upload real ethical case files or videos to the platform and mark ethical conflict points to form a dynamically updated case base. Combined with the functions of barrage discussion and real-time voting, students can directly ask questions or express their opinions when learning online materials. Teachers can immediately answer questions or guide debates through the platform to enhance students' sense of participation. Through the cooperation between teachers and students, legal, social, technical and other annotations are added to the case, and a three-dimensional analysis model of "ethical principles-realistic situations-solutions" is constructed to make up for the lag of textbook cases. Through the online platform learning of "Rain Classroom", students can change from passive listening to knowledge co-builders (such as case submission and annotation supplement), stimulate students' sense of responsibility and creativity, and improve classroom participation and teaching effect [8]. At the same time, the platform supports anonymous debate and cross-campus collaboration, reduces the pressure of classroom speech, and encourages the collision of multiple viewpoints.

### **2.2. Situational practice activities**

Through multi-role playing (students play the roles of doctors, patients, family members, ethics committee members, etc.), students experience the value conflicts of different positions. For example, in the "medical data sharing" scenario, technology developers focus on efficiency, patients emphasize privacy, and policy makers need to balance public

interests. Through emotional immersion design (such as simulated hospital beds, medical equipment, emergency room alarms) to enhance the sense of reality of the scene, trigger students' emotional resonance and moral anxiety. It can also be combined with affiliated hospitals to design "ethical rounds" activities, so that students can participate in real case discussions and observe the resolution process of clinical ethical conflicts. The teacher acts as an observer in the scenario simulation, recording the students' decision-making logic and communication performance, and providing targeted feedback after the end. Situational practice transforms abstract ethical principles (such as autonomy and justice) into concrete behavior choices, enhances students' participation and critical thinking, transforms passive acceptance into active exploration, and breaks the standard answer thinking. For example, in the simulation of "treatment priority under resource shortage", students need to weigh multiple factors such as patient age, prognosis, and social contribution in a limited time, and deeply understand the dynamic balance of principles. Through situational practice activities, an innovative model of "scene reduction-role immersion-dynamic feedback-teacher-student collaboration" is formed, which not only solves the abstract problem of traditional medical ethics teaching, but also cultivates students' core literacy to deal with complex ethical challenges through emotional experience and active exploration.

### **2.3. Reform of assessment methods**

By enriching the traditional process evaluation content, the second classroom participation is included in the overall evaluation results, including case contribution, online speech, debate performance, practice report and so on. Students are allowed to submit homework through papers, short videos, ethical scripts, etc., encourage creative expression, and intuitively present technical ethical issues. The reform of the second classroom assessment method reconstructs the evaluation paradigm of medical ethics education through the design of "process tracking-result empowerment". The core value of reforming the assessment method is to transform the assessment from "learning end point" to "literacy development navigator", and to promote medical humanities education from "what to know" to "what to do", so as to cultivate future doctors with both technical ability and ethical bottom line.

### **2.4. Teacher role transformation and support system**

In the teaching of traditional medical ethics, the role of teachers is mostly limited to "knowledge lecturer" and "classroom authority". However, due to the openness and practicality of the second classroom, teachers need to shift from one-way output to "learning ecology co-builder". Teachers need to master Socrates' questioning skills. For example, in the ethical debate, who should bear the responsibility of AI misdiagnosis? Guide students to trace the responsibility chain of technology development, clinical use, regulatory policy and other links, rather than directly give conclusions. By observing the decision-making path of students in scenario simulation (such as over-reliance on the "principle of beneficence"), they immediately intervene and ask reflective questions (such as how to balance the principle of benefit and autonomy if the patient's wishes conflict with their families?). At the same time, teachers need to dock with the hospital ethics committee, transform clinical real cases

(such as disputes over hospice care decision-making) into teaching materials, and have rich clinical ethical practice experience to ensure the in-depth analysis of cases. Based on students' dynamic learning archives (such as ethical rounds reflection log, case contribution record), teachers need to analyze their ability shortcomings (such as lack of empathy ability, rigid application of principles) and provide targeted guidance programs.

In the teaching of medical ethics assisted by the second classroom, the essence of the transformation of teachers' role is the transition from "knowledge transmitter" to "educational ecological designer", and teachers become the hub connecting classroom, clinic and society. This transformation not only improves the effectiveness of medical ethics education, but also reshapes the underlying logic of medical humanities education - from cultivating "skilled doctors" to shaping "warm life guardians".

### 3. Summary and Outlook

The second classroom-assisted medical ethics teaching provides a systematic solution to the dilemma of traditional medical ethics education by reconstructing teaching scenarios, methods and evaluation systems. Its core innovation points can be summarized as: innovating teaching paradigm, multi-dimensional (resources, evaluation) coordination mechanism, and sublimation of educational value. Through the teaching of medical ethics assisted by the second classroom, the future doctors with "the left hand holding the scalpel and the right hand holding the ethical ruler " are trained. Such doctors can not only treat accurately, but also protect human dignity in complex ethical dilemmas.

In the future, with the evolution of technology iteration and social needs, cutting-edge intelligent tools can be used to

empower teaching, track students' professional behavior, and evaluate the long-term impact of ethical education, so as to promote the development of medical ethics education in a multi-modal and three-dimensional direction.

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