

# Legal Literacy Development among Medical Students in the Context of New Medical Science

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**Abstract:** Under the dual background of the comprehensive advancement of the rule of law and the “Healthy China” strategy, medical students, as the future main force of the healthcare system, need adequate legal literacy. This is not only closely related to the security of their own professional development, but also directly affects the prevention of medical disputes, the building of harmonious doctor–patient relationships, and the modernisation of public health governance. In line with the new requirements of the development of new medical science, this study clarifies the meaning of legal literacy for medical students and further analyses its value in medical education, clinical practice, and social development. At present, the cultivation of legal literacy among medical students in universities faces several practical difficulties, including the marginalisation of related courses, the disconnection between teaching content and medical training, the shortage of interdisciplinary teaching staff, the limited forms of assessment, and students’ overly utilitarian understanding of learning. To address these issues, this paper proposes a systematic framework that combines curriculum design, teaching methods, faculty development, cultural guidance, and evaluation systems, in order to effectively improve the legal literacy of medical students in the background of new medical science.

**Keywords:** Medical students; Legal literacy; Medical education; Legal education

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## 1. Introduction

Since the 18th National Congress of the Communist Party of China, the Central Committee has, from the overall perspective of upholding and developing socialism with Chinese characteristics, put forward and gradually formed a strategic framework, including building a moderately prosperous society in all respects, deepening reform, advancing the rule of law, and strengthening Party self-governance. Without the comprehensive advancement of the rule of law, neither national governance nor social life can function in an orderly manner, and it is difficult to achieve social harmony and stability<sup>[1]</sup>. In the field of healthcare, with the issuance and revision of a series of laws and regulations, such as the Basic Healthcare and Health Promotion Law of the People’s Republic of China, the Civil Code of the People’s Republic of China

(hereinafter referred to as the Civil Code), and the Regulations on the Prevention and Handling of Medical Disputes, the healthcare system has been steadily moving toward a law-based framework. However, in reality, medical disputes still occur frequently, and incidents of medical violence still happen from time to time. At the same time, problems such as weak legal awareness among medical staff and insufficient ability to practise in accordance with the law remain quite prominent. According to statistics from the National Health Commission, although the number of medical disputes has shown a downward trend in recent years, lawsuits caused by legal issues, such as irregular medical record writing, inadequate implementation of informed consent, and practising beyond the permitted scope, still account for a considerable proportion. To a large extent, these problems can be traced back to the lack of legal literacy cultivation during medical education. Medical students are future doctors, and the legal thinking and behavioural habits they form during their time in school will have a profound impact on their future practice. Therefore, the systematic improvement of medical students' legal literacy within the medical education system relates to the actual needs of the complex medical environment, and also influences the high-quality development of medical education.

Legal literacy refers to a comprehensive set of internal awareness and external competencies. It is formed through learning and practice, and reflects how individuals understand, accept, and use the law in real situations. In general, legal literacy has three main parts. One aspect is legal knowledge. This means having a basic understanding of the Constitution, general laws, and especially laws related to healthcare. Another aspect is legal awareness. This is the mindset that values and respects the law. It includes awareness of rights and duties, as well as attention to procedures and evidence. The third aspect is legal competence. This focuses on the ability to deal with real issues by using legal thinking. It involves handling matters according to the law, avoiding legal risks, and protecting legitimate rights. For medical students, legal literacy has a more specific meaning. It refers to the overall legal quality that this group should develop during medical education. This quality needs to meet the needs of future healthcare work and fit the requirements of a society ruled by law. Medical students' legal literacy is fundamental to their future careers. It underpins daily professional practice and shapes the development of sound professional values. The term "legal literacy in healthcare" mainly refers to the overall level of individuals in understanding, applying, and recognising healthcare-related laws. It is usually used to describe people engaged in healthcare services, including both institutions and practitioners. This kind of literacy covers legal knowledge, and at the same time includes people's legal awareness and practical law application ability<sup>[2]</sup>.

## **2. The value of legal literacy among medical students**

Legal literacy among medical students does not simply mean mastering basic legal knowledge. It is also related to key issues concerning the nature of medical education, professional ethics in healthcare, and the public interest. Its importance can be understood from the individual, professional, and social levels.

### **2.1. Individual level: AN important part of professional safety and personal development**

The medical profession is characterised by high risk and uncertainty. In a modern society under the rule of law, every medical action is carried out within a legal framework. First of all, legal literacy of medical students is the cornerstone of preventing professional risks and ensuring basic professional safety. From the strict provisions on medical liability in the Civil Code to the clear requirements on medical practice

in the Physicians Law, the law has become a key standard to define the legitimacy of medical behaviour. Furthermore, it helps to develop rational thinking and supports the overall development of personality. At its core lies rationality. The law emphasises evidence, logic, procedure, and responsibility. Through systematic education in this area, students can learn to look at problems in a more balanced way, remain calm in complex clinical situations, and understand the relationship between rights and duties. This provides a solid foundation for cultivating competent and responsible doctors. Similarly, medical education has long shown a tendency to focus more on technical skills than on the humanities. In recent years, medical schools have strengthened medical humanities education, but they often focus on ethics and psychology, and do not pay enough attention to the rule of law education. In fact, it is a vital part of the medical humanities. Many principles in medical ethics, such as respect, non-maleficence, and justice, are supported and enforced through legal rules.

## **2.2. Professional level: An important basis for building harmonious doctor–patient relationships**

Henry E. Sigerist once pointed out that every medical activity involves two groups of people, namely doctors and patients, or more broadly, the medical community and society. In this sense, medicine is essentially about the various relationships between these groups<sup>[3]</sup>. In this context, the legal literacy of medical students has a direct influence on the building of doctor–patient relationships. On the one hand, learning the law early helps stop medical disputes before they get serious. In addition to technical factors, there are also legal issues such as poor communication, insufficient notification, and infringement of rights. Medical students receive systematic legal training during their time in school, which is conducive to establishing a sense of reciprocity of rights, mastering communication legal skills, and developing the habit of preserving evidence. This kind of forward-looking understanding can reduce many potential disputes before they arise and lay a foundation for more harmonious relationships. On the other hand, legal knowledge helps when a dispute does happen. Legal literacy is conducive to sealing medical records according to law, applying for medical damage identification, and rationally protecting rights through people’s mediation or litigation, rather than adopting irrational methods such as “medical trouble” or private, which is conducive to maintaining normal medical order. It is of great significance to save judicial resources.

## **2.3. Social level: An important foundation for advancing the rule of law and the Healthy China strategy**

From a social level, improving the legal literacy of medical students helps to promote the rule of law and the Healthy China strategy. First and foremost, it offers a micro-level foundation for putting the rule of law into practice. Legal literacy among medical students matters. It is a key part of broader legal education for university students. Besides, it also supports law-based governance in the health sector. Healthcare is closely related to people’s lives, and its level of legal development reflects, to some extent, the overall level of the rule of law in a country. As a well-educated group, medical students can have a strong demonstration effect. When a large number of healthcare workers are able to respect, learn, follow, and apply the law in their work, it is more likely to become a shared belief in the field. Secondly, it serves as an important basis for ensuring the smooth implementation of the Healthy China strategy. The “Healthy China 2030” Plan clearly states the need to strengthen the rule of law in the healthcare sector. To achieve this goal, it is not enough to rely only on sound legal systems; it also requires well-trained medical professionals with a good understanding

of the law. Whether in responding to public health emergencies, such as infectious disease control, or in promoting reforms like hierarchical diagnosis and treatment and the integration of medical care and elderly care, healthcare workers need both awareness and the ability to act in accordance with the law. In this sense, improving their legal literacy provides pivotal support in terms of both talent and legal assurance for the Healthy China strategy.

### **3. Practical difficulties in the cultivation of legal literacy among medical students**

Although the importance of legal literacy among medical students has received increasing attention, its development in current medical education still faces a number of deep-rooted problems.

#### **3.1. Structural imbalance caused by the marginalisation of legal courses**

The time allocated to legal courses is quite limited. Medical training usually lasts for several years and includes a heavy load of specialised and clinical subjects. With a strong focus on professional knowledge and clinical skills, most of students' study time is occupied by medical courses. In many medical schools, only one course, such as "Basic Law" or "Health Law", is provided, and it is often set as an elective or assessed in a less formal way. The total number of teaching hours, usually around 16 to 32, is much lower than that of core medical subjects. Compared with courses like clinical skills and pathology, which are taught and examined on a regular basis, legal education often sits at the edge of the curriculum. This contrast highlights the marginal position of legal education. Another problem lies in the lack of overall planning in course design. Legal education is often scattered in the public course of "Ideology, Morality and the Rule of Law", the elective courses of health law, and lectures on medical humanities. These parts are not closely connected, and there is little integration in content. General courses focus on basic legal theories. But they stay far from real medical practice. Health law courses usually cover a wide range of topics. Students go from public health law to medical damage law in one semester. The result is just surface-level understanding. Under such a fragmented structure, it is difficult for students to build a systematic understanding of legal literacy.

#### **3.2. Disconnection between teaching content and clinical practice**

In many cases, the teaching materials and examples used in legal courses are outdated and not closely related to clinical reality. At present, many medical schools still use traditional teaching cases. Examples include hospital disturbances and illegal medical practice. Nevertheless, emerging issues include new regulations on medical liability following the implementation of the Civil Code, the legal risks of artificial intelligence medical treatment, the regulatory rules of Internet diagnosis and treatment, and the ethics and legal boundaries of gene editing. There are very few cutting-edge hot issues involved. As a result, teaching content falls behind. Both legal practice and clinical developments move faster. Students may still find it difficult to apply what they have learned in practice. They don't know how to apply what they learned in real situations. Teaching methods are also quite basic. Most classes involve the teacher explaining legal provisions. Students memorize passively. Legal language can be difficult to understand, and there are clear differences between medical and legal terminology. If there are no specific clinical situations, students often find it hard to grasp the meaning and proper use of these rules. Consequently, knowledge is not effectively transformed into practical ability.

### **3.3. Lack of teaching composite faculty**

On one side, most teachers come from either medicine or law. Truly interdisciplinary staff are rare. In medical schools, there are mainly two types of teachers who are responsible for legal education. One group consists of ideological and political teachers with a law major. Yet they struggle to connect legal content to real medical situations. Their teaching can feel a bit distant from actual clinical problems, which makes the teaching less effective in addressing real clinical issues. The other category is teachers with a medical professional background, like hospital managers and clinicians who teach part-time. They are familiar with medical practice, but lack systematic legal theory training. Their teaching is often based more on personal experience and lacks a clear legal framework. On the other hand, there is no proper system to train interdisciplinary teachers. Those with both legal and medical training are extremely rare. Professionals with both medical and legal backgrounds are very limited. Medical schools also do not have enough targeted policies for attracting and developing talent in this cross-disciplinary area. At the same time, there is no regular system for teachers to work in clinical settings or to receive further training in law schools. For this reason, most teachers only specialize in either law or medicine, lacking cross-disciplinary expertise in the other field.

### **3.4. An assessment system that focuses more on theory than practice**

First, the assessment of medical students' legal literacy tends to be overly exam-oriented. At present, evaluation mainly relies on final written examinations, and most of the questions are based on memorisation of basic knowledge. This kind of assessment encourages students to focus on passing exams rather than real understanding. As long as they pass the test, it is difficult to judge whether they have truly developed legal awareness or whether they are able to practise in accordance with the law. Second, there is a lack of both continuous assessment and practical ability evaluation. The core of legal literacy lies in both awareness and ability, but few medical schools include practical elements such as mock trials, legal case analysis reports in medicine, or performance during clinical placements in relation to lawful practice in the credit system. Without an effective assessment "guidance system", it is difficult to improve the level of attention given to legal literacy by either students or teachers.

### **3.5. Strong instrumental understanding among medical students**

One issue is the instrumental motivation behind students' learning. A considerable number of medical students study legal courses mainly to deal with exams, obtain credits, or reduce risks in future clinical practice, rather than out of real recognition or acceptance of the rule of law. This kind of attitude means that they tend to focus only on the minimum requirement of "how to avoid breaking the law", while paying less attention to deeper questions such as the value of law itself and why the rule of law should be respected. In addition, there is a fixed way of thinking that places more emphasis on technical skills than on the humanities. Influenced by traditional medical education and career expectations, many medical students believe that strong clinical skills are the most essential thing. Some of them even think that a doctor only needs to focus on treating patients. This narrow understanding of the profession makes it difficult for legal literacy to be fully internalised.

## **4. Practical approaches to the cultivation of legal literacy among medical students**

The strategy of new medical science has put forward new requirements for the training of medical

professionals. By promoting the integration of medicine with the humanities, especially law, and on the basis of strengthening professional medical knowledge, greater attention should be given to the development of students' legal and humanistic literacy. This has become an important part of the new medical science strategy and also a new way to train high-quality medical professionals<sup>[4]</sup>. In this context, it is vital to build a comprehensive system for developing legal literacy among medical students from several aspects, including curriculum design, practical teaching, collaborative education, and cultural influence.

#### **4.1. Building a multi-dimensional and modular legal curriculum system**

In response to the long-standing marginal position of legal courses in medical education, it is necessary to develop a more structured and multi-dimensional curriculum system. One vital step is to strengthen the basic module within the compulsory course "Ideology, Morality and Law." Colleges and universities need to raise the proportion of legal education in the curriculum. They should pay more attention to legal principles closely connected with medicine. This helps students build a basic grasp of relevant laws starting from their first year of study. Another point is to strengthen the core course in health law. The content should pay attention to the unity of the times, readability, authenticity, and representativeness, and set Health Law or Medical Law as a compulsory course for medical majors, not an elective course<sup>[5]</sup>. Teaching content can be split into smaller modules. Small-class teaching can be adopted to promote more interaction between teachers and students and encourage in-depth discussions. Additionally, it is necessary for the school to expand personalised needs and take elective module courses. Open a number of general elective courses related to the rule of law, such as "Doctor–Patient Communication and Law", "Medical Dispute Case Analysis", "Bioethics and Law", and "Public Health Law Practice." Students can pick courses based on their personal interests and future career plans. This way, they can develop a more flexible professional knowledge system.

#### **4.2. Innovative experiential practical teaching model**

The core of legal literacy lies in its application. It is significant to move beyond the traditional "classroom–textbook–examination" model and extend legal education to real or simulated clinical situations. This can be done by expanding the in-depth application of the case teaching method (CBL) and establishing a "medical legal case library", covering typical issues such as informed consent, medical record writing, emergency duties, liability for medical products, and privacy protection. The classroom adopts the five-step teaching method of "case review—focus of controversy—application of law—judgement results—revelation reflection" to guide students to think like lawyers or judges. At the same time, create conditions to carry out mock court activities. Mock court activities are widely regarded as an effective form of practical legal education. Medical schools ought to establish a normalised mock court mechanism. Through mock court, we should train medical students to master litigation procedures and have a deeper understanding of the importance of evidence, the normative nature of legal documents, and the psychological game between the doctor and the patient. Additionally, this kind of training can be extended to the stage of clinical placements. Organise students to go into the medical department of the hospital, the doctor-patient relationship office, the medical dispute people's mediation committee, or the court medical trial court for an internship. The instructor will guide the intern students to review the medical record writing, sign the informed consent form, the early warning of medical disputes, listen to mediation, observe the trial, participate in the case file collation, and "embedded" teaching. Learning could enable students to complete the migration and application of legal knowledge in real scenarios.

### **4.3. Build a diversified and coordinated teaching team of “on-campus + off-campus”**

The cultivation of the rule of law literacy of medical students is far from enough to rely on ideological and political teachers or law school teachers alone. Teachers are the key to ensuring education and teaching, and it is essential to build a pattern of education with the collaborative participation of multiple subjects <sup>[6]</sup>. Inside universities, EDUCATORS need to build an interdisciplinary teaching team. This team can include law graduates with medical knowledge backgrounds, or medical practitioners with legal practice experience. Schools can encourage current law teachers to work in hospital departments for a period every year. This helps them accumulate clinical experience and understand real medical practice problems better. Meanwhile, medical teachers can get support to learn legal knowledge or attend professional legal training. It is also a practical way to form joint teaching teams. These teams can bring together law professors, clinical doctors, hospital legal workers, and public health experts. They can cooperate to prepare courses and share teaching tasks based on their professional advantages. Outside universities, schools should build long-term and stable cooperation with external institutions. These institutions include local courts, judicial bureaus, bar associations, and medical dispute mediation organizations. Schools could invite practical legal and medical workers to serve as off-campus instructors and set up off-campus practice bases. These measures offer students regular chances to observe and take part in practical learning. What is more, give full play to the main role of medical education in affiliated hospitals. The affiliated hospital is not only a clinical teaching base, but also a “training ground” for medical students’ rule of law literacy. It is indispensable to strengthen the educational role of affiliated hospitals, integrate the rule of law education into the training of residents, integrate the cultural construction of the hospital into the elements of the rule of law, carry out legal risk tips and typical case warning education in a regular way, and create a cultural atmosphere of practising according to law.

### **4.4. Creating an environment with full legal and cultural engagement**

The influence of culture is enduring and far-reaching. Medical universities should strengthen the development of the rule of law on campus and pay more attention to legal culture, so that legal values can become part of everyday campus life. Activities like a “Legal Culture Festival for Medical Students”, knowledge competitions on medical law, and short drama contests on the rule of law can be held on a regular basis. These activities help create a more active learning atmosphere. Universities can also make better use of their own platforms, including official websites, social media accounts, and campus notice boards. Some regular columns can be set up to share legal knowledge in a simple way, with topics that are closer to students’ daily study and life. Student organisations also play a significant role. Groups such as legal clinics or legal aid centres can be supported. Through these, students may take part in basic legal consultation or public education activities, which makes their learning more practical. Legal education can also be included in important moments during university life. This can be done in events like oath-taking ceremonies, white coat ceremonies, and graduation. Ideas about following the law and keeping medical ethics can be added to these activities. Before graduation, some short training or talks can be arranged to remind students about practising in a proper and lawful way. Most students today are used to digital media, so online tools should be used more actively. Short videos on medical law can be made and shared on common platforms. An online service for simple legal questions can also be set up, with support from teachers or student volunteers. In this way, legal knowledge and service become easier to access in everyday life.

## 4.5. Improving the assessment system across the whole process

Medical universities need to build an evaluation system that focuses more on students' actual ability. Both the learning process and final results should be taken into account. More attention can be given to continuous assessment. The proportion of regular performance can be increased. For instance, students' participation in case discussions and their performance in group work can be included, which may help improve classroom involvement<sup>[7–8]</sup>. Changes are also needed in final examinations. Too many questions based on memorisation should be reduced. Instead, more open and situation-based questions can be used, so that students are required to apply what they have learned rather than simply recall it. Assessment during clinical placements should also be improved. Some indicators related to legal literacy can be added. Items such as lawful practice, the standard of legal documentation, respect for patients' rights, and awareness of dispute prevention can be included in assessment forms and scored by supervising teachers.

## 5. Conclusion and outlook

In the context of advancing the rule of law and the Healthy China strategy, improving the legal literacy of medical students is no longer an optional part of medical education, but an essential requirement that relates to the quality of medical training, the development of the healthcare system, and social stability. It plays a pivotal role in protecting students in their future practice, supporting better doctor–patient relationships, and contributing to the implementation of national strategies. With the continued development of new medical science and the wider use of technologies such as artificial intelligence and big data in healthcare, the meaning of legal literacy will continue to expand. Only by continuing to deepen the reform of medical rule of law education can we cultivate outstanding medical talents with both benevolence and the spirit of the rule of law, and contribute to the rule of law in the construction of a Healthy China.

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