

# Research on Risk Assessment and Response Mechanisms for Career Planning Education of Medical Students

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**Abstract:** Against the backdrop of reforms in higher education and the healthcare industry, this study focuses on career planning education for medical students. It clarifies key concepts such as occupation and career planning, and analyzes group characteristics including independence, pluralism, pragmatism, and diverse needs. In response to pressing issues such as weak planning awareness, narrow career goals, and disconnected social support, this study explores the underlying causes from multiple perspectives: the neglect of career education in traditional models, insufficient social support systems, mismatches between educational supply and student demand, and the prevalence of utilitarian values. To address these challenges, the study proposes establishing a student agency-oriented education model that emphasizes students' active participation and self-direction. It further recommends implementing stratified, categorized, and personalized career guidance; integrating resources from schools, families, enterprises, and society to construct a holistic educational framework for comprehensive student development; and establishing a long-term, multi-stakeholder collaborative mechanism. These efforts aim to enhance the relevance and effectiveness of career planning education, providing a practical pathway for cultivating high-quality medical professionals and advancing the healthcare sector.

**Keywords:** Medical Students, Career Planning, Risk Assessment, Conceptual Characteristics, Response Mechanisms.

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## 1. Introduction

The report of the 20th National Congress of the Communist Party of China emphasizes the need to "fully implement the Party's educational policy, uphold the fundamental task of fostering virtue through education, cultivate socialist builders and successors with well-rounded moral, intellectual, physical, aesthetic, and labor development, accelerate the construction of a high-quality education system, promote well-rounded education, and advance educational equity". General Secretary Xi Jinping has attached great importance to higher education, addressing its essential nature, status and function, and contemporary value from various perspectives during visits to multiple universities, thereby providing a continuous source of theoretical and strategic guidance for the implementation of diverse educational philosophies in higher education institutions.

As a discipline with distinct characteristics, medical education raises the question: how should career planning education for medical students be designed and advanced? At present, the international landscape is undergoing profound changes unseen in a century, while domestically, China is striving toward its Second Centenary Goal. In such a context, determining the appropriate attitude toward the inheritance of the medical profession, and identifying the right approach to guiding medical students' career planning, are of vital importance. These efforts are essential not only for effectively addressing the employment challenges of medical students, but also for contributing to the development of Wenzhou's healthcare sector and talent cultivation system. As such, they carry increasing contemporary relevance and urgency, and constitute a major local policy issue for the Wenzhou municipal government in the new era.

## 2. Conceptual Interpretation of Career Planning Education for Medical Students

In contemporary society, career planning plays a crucial role in an individual's professional development. This is particularly true for medical students, who bear the vital responsibility of saving lives and healing the sick. For them, effective career planning is essential for their growth into highly qualified medical professionals.

Firstly, profession refers to the work that people engage in within social life, which serves as their primary source of livelihood through material compensation and can also satisfy their spiritual needs, requiring specialized skills in the social division of labor. It has characteristics of sociality, economic nature, stability, normativity, and collectivity. Sociality is reflected in the fact that a profession is the product of social division of labor; economic nature indicates that the profession is a means of obtaining economic income; stability means that the profession is relatively stable over a certain period; normativity requires that professional activities follow certain norms; and collectivity indicates that a profession involves a large group of people engaged in the same work.

Secondly, career refers to the total sum of positions, work activities, and career development stages that an individual experiences throughout their life. It is developmental, representing the continuous growth and progress of the individual; phased, and can be divided into different stages such as exploration, establishment, maintenance, and decline; integrative, encompassing various aspects of a person's life, not just work; and lifelong, spanning from the start of work to

the end of life.

Thirdly, career planning is the purposeful, planned, and organized arrangement and design of an individual's future career development based on their own interests, abilities, values, etc., in combination with the external environment. It is individualized, meaning each person's plan is unique; feasible, meaning it must be based on realistic conditions and be operable; dynamic, meaning it adjusts with changes in the individual and environment; and forward-looking, meaning it involves forecasting and planning for future development.

Fourthly, career planning for university students refers to the career planning and design that university students conduct during their time in university for their future career development. For medical students, this process is particularly important. University career planning is goal-oriented, aiming to help students determine their future career direction; systematic, involving self-assessment, environmental analysis, goal setting, plan implementation, and evaluation and adjustment; and educational, being an important means for universities to carry out career education, aimed at improving students' professional qualities and employment competitiveness.

Career planning education for medical students integrates the concepts of profession, career, career planning, and university student career planning, helping medical students comprehensively understand themselves, understand the development trends of the medical industry, and the professional requirements, thereby formulating career plans that align with their actual situation. This not only helps medical students engage in targeted learning and practice during their university years to improve their overall quality, but also lays a solid foundation for their future career development, allowing them to better adapt to work in the medical field and make a greater contribution to the healthcare industry.

### **3. Characteristics of Career Planning Education for Medical Students**

#### **3.1. Independent and Diversified Career Planning Group Traits**

Contemporary medical students grow up in an age of information explosion, with rich channels for acquiring knowledge and information. This has led them to exhibit distinct independence and diversification in their career planning. They no longer blindly follow traditional medical career paths but instead, based on their own interests and strengths, independently think about their future development direction[1]. Some medical students, in addition to clinical skills training, are deeply interested in medical research and aspire to become experts in the field of medical science. Others focus on the integration of medicine and humanities, hoping to incorporate humanistic care into healthcare services and carve out a unique career path. This diversification requires career planning education to provide more targeted and enriching guidance.

#### **3.2. Pragmatic Career Ideals and Diverse Career Value Demands Coexist in Career Planning Views**

Medical students harbor the noble career ideal of saving lives, which is deeply rooted in their love for the medical profession and their reverence for life, making it highly

pragmatic. They are well aware of the importance and responsibility of medical work and aspire to enhance their medical skills through clinical practice to help patients recover their health. Meanwhile, as society develops, the career value demands of medical students are becoming increasingly diverse. In addition to seeking professional achievements, they also pay attention to work-life balance, career development opportunities, salary and benefits, and personal interests. For example, some medical students wish to work in grassroots healthcare institutions where they can apply their expertise and deeply serve community residents, realizing their social value. Others aspire to work in large tertiary hospitals, seeking cutting-edge medical technologies and vast development platforms.

#### **3.3. The Coexistence of "Striving for Creation" and "Lying Flat" Value Orientations**

Within the medical student group, there exists a dual value orientation of "striving for creation" and "lying flat", which may seem contradictory. Those with a "striving for creation" mindset are proactive, eager to learn professional knowledge, participate actively in academic competitions, research projects, and clinical practice. They are willing to challenge themselves, hoping to make a significant impact in the field of medicine and constantly improve their competitiveness. However, some medical students adopt a "lying flat" mentality, temporarily avoiding the heavy pressure of medical studies and the uncertainties of their future careers. They reduce their expectations of themselves and lack proactive career planning actions. This coexistence of both tendencies poses challenges for career planning education. Educators need to guide students to properly address pressure, inspire those with a "lying flat" mindset to be more active, and encourage "striving for creation" students to maintain a positive attitude.

#### **3.4. Characteristics of "Slash Generation" and "Slow Employment" Highlighted**

The number of "slash generation" students is gradually increasing among medical students. They are not content with just a single medical profession identity, and in their spare time, they acquire other skills such as medical popular science writing and medical data analysis, thereby broadening their career development paths. At the same time, the phenomenon of "slow employment" is also prominent. Some medical students, after graduation, do not rush to seek employment but choose to pursue further education, engage in volunteer work, or travel to gain life experience and search for a career direction that suits them. These traits reflect a cautious attitude towards career development, and career planning education should adapt to this change by providing more diversified development suggestions and resource support to help students make reasonable choices among different career paths and achieve their professional goals.

### **4. The Current Situation and Causes of Medical Students' Career Planning Education**

#### **4.1. Current Situation**

With the continuous development of higher education and the ongoing transformation of the healthcare industry, the

importance of medical students' career planning education has become increasingly evident. However, there are still many practical issues within the current career planning education for medical students that require in-depth analysis and resolution[2].

#### **4.1.1. Lack of Theoretical Knowledge and Skills in Career Planning**

While most medical students have gradually become aware of the importance of career planning, they lack a deep understanding of the theories and skills required for effective career planning. Many students only have a basic awareness of career planning concepts but do not know how to apply scientific methods for self-assessment, career environment analysis, or goal-setting. For example, in the self-assessment process, they struggle to accurately identify their strengths, weaknesses, interests, and values. When analyzing the career environment, they lack in-depth research on trends in the medical field, changes in the job market, and employment demand. This gap in theoretical knowledge and practical skills leads to a lack of scientific and feasible career planning.

#### **4.1.2. Limited Career Goals and Professional and Value Misalignments**

Some medical students have a narrow career focus, primarily aiming to work in large hospitals or pursue clinical roles. This choice is partly due to a lack of awareness of other medical-related career fields and also influenced by the traditional belief that "larger hospitals offer better career prospects". At the same time, some students have weak professional commitment and do not strongly identify with the medical profession or its mission. In terms of values, they may overly focus on material rewards and career status, neglecting their genuine passion for medicine and their desire to serve patients. This misalignment can impact their future career development and overall job satisfaction.

#### **4.1.3. Deficient Career Planning and the Disconnect Between Planning and Action**

Many medical students lack systematic and forward-thinking career planning. Their plans are often vague and lack specific steps and timelines. For example, some students might simply set the goal of "becoming an excellent doctor" without specifying the tasks and activities required during their university years, such as participating in specific practical activities or obtaining relevant certifications. Worse still, even when they do have a plan, they often face procrastination and lack of execution, leading to a disconnect between their plans and actual actions, which hinders their career development.

#### **4.1.4. Disconnected Social Support Systems and the Joint Force of Career Planning Education Has Not Yet Been Formed**

Career planning education for medical students requires coordination between schools, families, and society. However, the current social support system is disconnected. Although some schools offer career planning courses, many teachers lack practical experience in the medical field, leading to a disconnect between the course content and real-world needs. Additionally, the quality of these courses needs improvement. In terms of family support, some parents have limited understanding of medical students' career development and cannot provide effective guidance. Socially, medical institutions and industry associations are not highly involved in career planning education for medical students, and their resource advantages have not been fully utilized, resulting in

the failure to form a joint force in career planning education.

## **4.2. In-depth Exploration of the Reasons**

### **4.2.1. Traditional Educational Model Overlooking Career Planning**

For a long time, the education system in China has focused on knowledge transmission and exam skills training, giving insufficient attention to career planning education for students. In the basic education stage, students primarily focus on academic advancement goals, lacking exploration into career interests and abilities. Upon entering university, although students begin to engage with career planning education, the weak foundation from earlier stages makes it difficult to catch up in a short period. Additionally, within the higher education system, professional courses dominate, while career planning courses are often marginalized with fewer hours and weak teaching resources, unable to meet students' needs.

### **4.2.2. Insufficient Social Support for Career Planning**

Social forces have a low level of involvement in the career planning education of medical students. Healthcare institutions are often busy with daily medical work and rarely take the initiative to collaborate with universities to offer career guidance activities. Platforms that provide medical students with practical opportunities and career experiences are limited. Industry associations have not sufficiently played their role in organizing career training or publishing industry information. Furthermore, there are few career consulting services for medical students, and the quality of these services is inconsistent, making it difficult to provide students with professional and comprehensive career planning guidance.

### **4.2.3. Career Planning Education Fails to Meet the Needs of Medical Students**

The existing career planning education content and methods do not meet the personalized needs of medical students. The curriculum tends to focus on general career planning theories, lacking in-depth analysis of the unique characteristics of the medical profession and the development of the healthcare industry. The teaching method mainly relies on lectures, which are one-dimensional and lack practical teaching and case analysis, failing to spark students' interest and enthusiasm. At the same time, schools often only provide career planning guidance in the pre-graduation stage, neglecting the varying needs of students at different stages during their university years[3].

### **4.2.4. The Utilitarianism of Professional Values Restricts Career Planning**

Under the influence of the market economy, some medical students have developed a utilitarian tendency in their career values. They place excessive emphasis on economic rewards and social status, while overlooking their own interests, abilities, and long-term career potential. This utilitarian career outlook makes them shortsighted when setting professional goals, lacking a long-term commitment to the medical profession and the spirit of service. Additionally, it affects their approach to career planning, leading to a lack of depth and sustainability in their plans, and diminishing their seriousness in taking the planning process into account.

In conclusion, career planning education for medical students faces numerous practical issues. To address these challenges, there is a need to shift educational perspectives, strengthen social collaboration, improve educational content and methods, and guide students to develop the correct professional values. These steps will jointly promote the

development of medical students' career planning education, cultivating more excellent talents for the healthcare industry.

## **5. Exploring the Response Mechanisms for Career Planning Education for Medical Students**

In the context of the thriving healthcare industry, improving the quality of career planning education for medical students is of great significance for cultivating high-quality medical professionals. To address the existing issues, the following response mechanisms can be constructed.

### **5.1. Building a Subjective Education Model with Medical Students' Development at the Core**

Traditional career planning education is often a one-way transmission, neglecting the subjectivity of medical students. Constructing a subjective education model requires placing students at the core. Educators should fully respect medical students' individual differences, interests, and career aspirations, guiding them to actively engage in the career planning process.

During the educational process, various teaching methods can be used to inspire students' self-exploration. For example, organizing thematic class meetings where medical students can share their career dreams, encouraging exchange and sparking ideas; conducting career interest assessments to help students clearly identify their strengths and potential career paths; introducing case-based teaching by selecting cases of medical professionals with different career paths, guiding students to analyze their career choices and development strategies, helping them define their own developmental needs through reflection. At the same time, students should be encouraged to independently formulate their career plans, with teachers offering targeted guidance and feedback to enhance students' self-planning abilities through practice.

### **5.2. Multi-Pronged Approaches to Enhance Educational Targeting and Effectiveness**

#### **5.2.1. Layered and Classified Guidance**

Offer differentiated career planning education based on the academic year of medical students[4]. First-year students should focus on career enlightenment education, helping them understand the essence of the medical profession, academic systems, and future career directions, guiding them to establish initial career goals. In the second and third years, professional skills and career qualities should be strengthened, such as organizing clinical internships and participation in research projects to deepen students' understanding of their profession and adjust their career planning based on their individual circumstances. For fourth- and fifth-year students facing internships and employment, training in job-hunting skills, employment policy interpretation, and workplace etiquette should be provided to help them transition smoothly into the workforce.

#### **5.2.2. Personalized Guidance**

Focus on individual differences among medical students and offer one-on-one guidance for those with special needs or career uncertainties. For instance, for students interested in medical research but lacking research experience, arrange for professional mentors to guide them through research projects, offering full support from topic selection, experimental

design to writing papers. For students unsure about career choices, psychological counseling and career consultation can be provided to help them analyze their issues and find a suitable career direction.

#### **5.2.3. Enriching Educational Content**

In addition to conventional career planning theories, incorporate the latest developments in the medical industry and emerging career fields. For example, introduce the development prospects and career demands in new medical fields such as telemedicine, precision medicine, and health management, broadening medical students' career horizons and making the educational content more aligned with practical needs.

### **5.3. Based on the "Four Integrations", Construct a Comprehensive Talent Development System**

#### **5.3.1. Integrating School Education Resources**

Integrate the internal resources of various departments within the school to form a collaborative educational effort. Departments such as the Academic Affairs Office, Student Affairs Office, and Career Services should work together to include career planning education within the talent development system, providing systematic planning in course offerings, practical teaching, and employment guidance. For example, professional course instruction should incorporate career competency education, practical teaching should include career experience activities, and the Career Services Center should offer continuous career development services.

#### **5.3.2. Integrating Home-School Cooperation**

Strengthen communication and collaboration between the school and the family. Regularly hold parent workshops to educate parents about medical career development, guiding them to focus on students' career growth. Through home-school interactions, parents can help students develop reasonable career plans. Additionally, encourage parents to leverage their social resources to provide students with career practice opportunities and career information.

#### **5.3.3. Integrating School-Enterprise Cooperation**

Build close cooperation between schools and medical institutions. Invite hospital experts and doctors to campus for lectures and career sharing sessions, allowing medical students to understand the work demands and career development paths in clinical settings. Arrange for students to intern and train at hospitals to improve their professional abilities in a real work environment. Collaborate with enterprises to carry out research projects, cultivating students' scientific research and innovation skills as well as their ability to solve practical problems.

#### **5.3.4. Integrating Social Resources**

Fully utilize social resources such as career consulting agencies and industry associations. Invite career consultants to provide professional career planning advice to medical students. Partner with industry associations to organize career skills competitions, academic exchange activities, and more, enhancing students' professional competitiveness and social recognition.

### **5.4. Integrating Resources to Establish a Long-Term Talent Development Mechanism**

Establish a long-term collaborative mechanism for talent development involving the government, schools, society, and

families[5]. The government should introduce relevant policies to encourage and support the involvement of medical institutions and enterprises in career planning education for medical students, providing policy guarantees and financial support for school-enterprise and school-society collaborations. As the main educational entity, the school should continuously improve the career planning education system, strengthen the teaching staff, and improve the education quality. Social sectors should actively participate, providing platforms for practice, career information, and other resources. Families should continue to focus on students' career development, offering spiritual support and guidance.

Through regular collaborative education meetings, common problems in medical students' career planning education can be discussed and resolved. An information-sharing platform should be established to timely transmit industry updates, employment information, and more, ensuring resource sharing and complementary advantages. At the same time, the effectiveness of the collaborative educational efforts should be periodically evaluated, and based on the evaluation results, work plans should be adjusted and optimized to ensure that the long-term mechanism continues to work effectively.

In conclusion, by building a student-centered educational model, enhancing the targeting and effectiveness of education, constructing a comprehensive talent development system, and establishing a long-term collaborative mechanism for education, we can effectively improve the quality of career planning education for medical students, cultivate more outstanding talents for the medical and healthcare industries, and contribute to the development of China's healthcare sector.

## 6. Conclusion

Through an in-depth analysis of career planning education for medical students, this study interprets concepts such as "career" and "career planning", clarifying the essential connotations of this educational field. Against the backdrop of the new era, the research uncovers the multifaceted factors influencing medical students' career planning education, revealing its unique group characteristics and era-specific traits. At the same time, it accurately identifies the issues currently facing career planning education for medical students, such as awareness, goal setting, planning formulation, and social support, and delves into the underlying causes.

Based on these identified issues and causes, the study proposes strategies that center around student development, aiming to construct a student-centered education model. Multiple measures are suggested to improve the targeting and effectiveness of the education. The study also emphasizes the

importance of the "Four Integrations" framework to establish a comprehensive talent development system, integrating resources to create a long-term collaborative mechanism for nurturing talent. These strategies aim to provide feasible solutions for the career planning education of medical students.

Looking forward, the study hopes that its findings will help medical students clearly define their career paths, achieve the organic integration of personal and social values, and continually supply the medical and healthcare industries with high-quality talent. It is also anticipated that these efforts will advance the theoretical and practical aspects of career planning education for medical students, driving it to new heights. Through ongoing exploration and practice, the career planning education system for medical students will be further refined and developed.

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