
Research on the Cultivation Path of Medical Undergraduates' Willingness to Work at the Grassroots Level from the Perspective of Healthy China

Tianmei Hao, Wenxiang Wang, Jing Xu*

Wenzhou Medical University, Wenzhou 325015, Zhejiang, China

**Author to whom correspondence should be addressed.*

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Abstract: With the in-depth implementation of the “Healthy China 2030” Planning Outline, the sinking of medical resources and talents to the grassroots has become a core task for the high-quality development of the medical and health industry. As the “first line of defense” for safeguarding the health of the whole people, grassroots medical institutions are increasingly facing an acute talent shortage. Currently, the vacancy rate of grassroots medical positions in Wenzhou is nearly 20%, confronting the dilemma of an unstable foundation of grassroots medical talents. Against the backdrop of the Healthy China strategy, this study takes undergraduates from a medical university in Wenzhou as the research object. Employing methods such as literature research, questionnaire surveys, and in-depth interviews, it systematically explores the current characteristics, influencing factors, and cultivation paths of medical undergraduates' willingness to work at the grassroots from three dimensions: research background, practical practices, and core significance. A multi-party collaborative cultivation system is constructed to provide theoretical reference and practical support for addressing the shortage of grassroots medical talents and promoting the balanced allocation of medical resources.

Keywords: Healthy China; Medical Undergraduates; Willingness to Work at the Grassroots; Cultivation Path; Employment Outlook Education

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1. Introduction

Health is an important symbol of national prosperity and a strong country. The implementation of the Healthy China strategy cannot be achieved without a sound healthcare service system, and primary healthcare institutions serve as the key carriers of the “last mile” in implementing the Healthy China strategy. The coexistence of employment pressure for college graduates and structural contradictions in the job market has created a two-way imbalance between “difficulty in employment” and “difficulty in recruitment.” Medical undergraduates, as the core reserve force of primary healthcare talents, generally exhibit low willingness to work at the grassroots level and concentrated employment preferences^[1]. This structural mismatch between talent supply and demand not only exacerbates the shortage of primary healthcare talents but

also hinders the balanced development of the healthcare sector, becoming a critical bottleneck in the implementation of the Healthy China strategy. Therefore, studying the employment willingness of medical undergraduates and fostering their development under the Healthy China perspective is of great significance.

2. Research design and implementation

To accurately address the low willingness of medical undergraduates in Wenzhou to work at the grassroots, this study, guided by the Healthy China strategy, takes undergraduates from a medical university in Wenzhou as the core research object^[2]. It conducts systematic research by comprehensively using literature research, questionnaire surveys, and in-depth interviews. The core goal is to clarify the current situation, analyze key influencing factors, and construct scientific and feasible cultivation paths through empirical analysis. In the early stage of the research, relevant literature at home and abroad was systematically sorted out, the core influencing factors of medical students' willingness to work at the grassroots and existing cultivation experience were summarized, and the research focus, difficulties, and innovations were clarified, laying a solid theoretical foundation for the subsequent research implementation and cultivation path design^[3]. During the research phase, targeted questionnaires and interview outlines were designed, covering multiple majors such as clinical medicine, preventive medicine, nursing, and pharmacy, as well as students from freshman to senior year, to ensure the representativeness and comprehensiveness of the samples^[4]. The questionnaire focused on core dimensions such as student source, household registration type, family economic status, employment concept, understanding of grassroots employment policies, intensity of employment willingness, and evaluation of influencing factors. For the interviews, 40 students with different student sources and employment intentions, 5 university career guidance teachers, and 3 responsible persons of grassroots medical institutions were selected to deeply explore the underlying motivations and practical barriers of students' willingness to work at the grassroots. A total of 600 questionnaires were distributed in this survey, and 571 valid questionnaires were recovered, with an effective recovery rate of 95.16%, forming rich empirical data to support subsequent analysis.

Based on the empirical data from this survey, the current characteristics of medical undergraduates' willingness to work at the grassroots in a university in Wenzhou were systematically analyzed from three dimensions: group heterogeneity, core supply-demand contradictions, and influence mechanisms, providing data support for the subsequent construction of cultivation paths for medical undergraduates' willingness to work at the grassroots^[5]. In terms of current characteristics, the overall willingness of medical undergraduates to work at the grassroots is low: only 14.3% of students are "very willing" to work at the grassroots, 45.8% are uncertain, and 40% clearly express unwillingness. The willingness of students from rural areas (32.6% willing) is significantly higher than that of students from urban areas (8.9% willing), showing obvious group differences. Students with average family economic conditions are more inclined to work at the grassroots^[6]. Students who understand grassroots employment policies have a significantly higher intensity of willingness than those with vague cognition. At the same time, there is a serious mismatch between students' employment preferences and the demand for grassroots medical talents in Wenzhou. Most students pursue large urban medical institutions, forming a sharp contrast with the talent gap in grassroots positions, and the structural contradiction is prominent^[7].

In terms of influencing factors, through analysis and in-depth interviews, the mechanism of action of five core dimensions—individual, family, policy, education, and occupational environment—was clarified. At the individual level, professional values and grassroots cognition are key factors. The concept of "elite employment", cognitive biases, and insufficient practical abilities directly reduce the willingness to work at the grassroots. At the family level, parental expectations, regional background, and economic status have a significant impact. The high expectations of urban families for their children's employment location and salary inhibit the tendency to work at the grassroots^[8]. At the policy level, insufficient publicity, imperfect welfare guarantees, and unsound promotion mechanisms have weakened the attractiveness of positions. Only 28.7% of students can clearly state more than 3 grassroots employment support policies. At the education level, there is little exposure to clinical practice at the grassroots—only 31.2% of students have grassroots

medical practice experience. The curriculum setting is insufficiently adapted to grassroots needs, and career guidance lacks pertinence. At the occupational environment level, the limited working conditions, weak equipment, and serious brain drain in grassroots medical institutions further reduce students' willingness to work at the grassroots^[9].

3. Constructing a four-in-one cultivation path for medical undergraduates' willingness to work at the grassroots

Against the background of the in-depth advancement of the Healthy China strategy, this study closely combines the actual needs of grassroots medical talent team construction in Wenzhou, fully absorbs the core cruxes and key influencing factors of medical undergraduates' willingness to work at the grassroots revealed in the survey, and constructs a targeted four-in-one cultivation path of "ideological guidance—education and training—policy guarantee—environment optimization". At the same time, it supports the establishment of a four-party collaborative mechanism involving the government, universities, grassroots medical institutions, and society^[10]. Through seamless connection and closed-loop management of all links, it effectively ensures the implementation and long-term operation of the cultivation work of medical undergraduates' willingness to work at the grassroots.

3.1. Laying the foundation with value guidance: strengthening ideological and cognitive guidance

At the ideological guidance level, we always take value shaping as the core to strengthen the ideological foundation of medical undergraduates serving the grassroots. We promote universities to deeply integrate ideological and political education with vocational education and advance them in the same direction. By offering special courses on grassroots medical care, inviting outstanding targeted professional graduates and frontline grassroots medical staff to share their practical cases and growth insights of taking root at the grassroots, we guide students to deeply recognize the contemporary value and mission of grassroots medical care in safeguarding the health of the whole people and promoting the construction of Healthy China^[11]. At the same time, we build diversified social practice platforms, organizing students to deeply participate in voluntary service activities such as medical assistance for rural revitalization, community free clinics, and grassroots health science popularization. Through personal experience, students can break their cognitive biases about grassroots medical care and gradually enhance their sense of responsibility and mission to take root at the grassroots and serve the people. We also carry out personalized guidance for students from different sources: for urban students, we focus on popularizing knowledge about the current situation and development prospects of grassroots medical care; for rural students, we emphasize career planning guidance and the cultivation of recognition of the value of grassroots services, so as to stimulate students' subjective willingness to take the initiative to work at the grassroots from the bottom of their hearts.

3.2. Empowering with system optimization: improving talent adaptability

At the education and training level, we optimize the training system with the goal of improving the adaptability of talents to grassroots medical needs. In terms of curriculum setting, we scientifically increase the proportion of practical content such as grassroots medical care, public health, and diagnosis and treatment of common diseases. We integrate knowledge about the prevention and control of common grassroots diseases in combination with the characteristics of the regional disease spectrum in Wenzhou, making the curriculum content more in line with the actual needs of grassroots medical positions^[12]. In the practical teaching link, we deepen the cooperative construction with grassroots medical institutions, establish long-term and stable practical teaching bases, formally incorporate grassroots clinical practice into the talent training program, reasonably extend the practice duration, and refine the assessment standards. We invite grassroots backbone medical staff to serve as tutors to guide students in improving their practical skills and service levels in grassroots diagnosis and treatment throughout the process. In career guidance work, we further improve the college students' career planning and employment guidance curriculum system, guide students to establish a correct employment view of "integrating personal

ideals into national development”, closely combine the realization of life value with the development of grassroots medical undertakings and the advancement of national health strategies, and provide students with personalized and precise career planning services.

3.3. Ensuring with policies: enhancing the attractiveness and vitality of positions

At the policy guarantee level, we strive to enhance the attractiveness and competitiveness of grassroots medical positions by improving the policy system^[13]. The government takes the lead in coordinating and integrating various resources, expanding the publicity channels of grassroots employment support policies, and realizing the all-round coverage of policy advantages and job information through various forms such as university lectures, online platforms, and grassroots publicity, so that every medical undergraduate can clearly understand the various guarantee measures for grassroots employment. At the same time, we optimize the salary and welfare system for grassroots medical positions, reasonably raise the salary standard, improve supporting guarantee policies such as five insurances and one fund, housing subsidies, and living allowances, and effectively narrow the income gap with urban medical institutions. We break the promotion barriers for grassroots medical talents, establish and improve the professional title evaluation and post promotion mechanisms linked to grassroots work experience, build regular academic exchange and skill training platforms, and continuously enhance the career development space and value recognition of grassroots positions.

3.4. Improving efficiency with environment optimization: creating a comfortable practice atmosphere

At the environment optimization level, we focus on improving quality and efficiency to create a good atmosphere for medical undergraduates to take root at the grassroots. We accelerate the upgrading and transformation of the infrastructure of grassroots medical institutions, improve the configuration of diagnosis and treatment equipment, optimize the working and living conditions of medical staff, and effectively reduce the work pressure and burden of grassroots medical staff^[14]. We establish and improve the “mentorship” system for grassroots medical talents, assigning experienced backbone physicians as instructors for newly recruited medical undergraduates to provide comprehensive guidance on professional improvement and career adaptation, helping them quickly integrate into the grassroots work environment and enhance their sense of professional belonging. At the social level, we increase the publicity of the advanced deeds of grassroots medical staff, tell the dedication stories of grassroots medical talents through mainstream media, public welfare activities and other carriers, vigorously promote the professional spirit of dedication and dedication, and continuously improve the social recognition and reputation of grassroots medical professions. We aim to create a strong social atmosphere of “respecting grassroots talents, recognizing grassroots services, and supporting grassroots medical care”.

3.5. Coordinating with four-party linkage: pooling efforts for cultivation work

At the collaborative mechanism level, we clarify the functional positioning and collaborative division of labor of all parties to form a joint force. The government assumes the core responsibilities of overall planning, policy formulation, and building university-local cooperation platforms, providing solid policy support and resource guarantee for the cultivation work. Universities focus on the core tasks of talent training, ideological guidance, and employment guidance, building the main position for talent supply and willingness cultivation. Grassroots medical institutions are responsible for providing high-quality job supply, practical teaching venues, and tutoring guidance, building an important platform for talent practice^[15]. All sectors of society give full play to the role of publicity and guidance, pooling social consensus to support the development of grassroots medical talents. The four parties establish a regular communication and docking mechanism, regularly exchanging work progress, connecting needs and demands, and sharing high-quality resources, forming a comprehensive cultivation system with upper and lower linkage, left-right coordination, and joint management, providing a strong mechanism guarantee for the cultivation of medical undergraduates’ willingness to work at the grassroots.

4. Conclusion

The cultivation of grassroots employment willingness among medical undergraduates can guide high-quality talents to flow to the grassroots level, serving as a core approach to addressing the shortage of grassroots medical talents, promoting the balanced allocation of medical resources, and facilitating the implementation of the Healthy China strategy. Taking a medical university in Wenzhou as an example, this paper constructs a “four-in-one” cultivation path and a quadrilateral coordination mechanism of “ideological guidance—educational training—policy support—environmental optimization.” At the theoretical level, it enriches the cultivation system for medical students’ grassroots employment under the Healthy China perspective, expands the research horizon and theoretical models, and provides academic insights for similar studies. At the practical level, it offers actionable guidance for Wenzhou and similar regions nationwide to resolve the dilemma of grassroots medical talent shortages, effectively alleviating the issues of talent scarcity and employment structure imbalance at the grassroots level, promoting the precise alignment of medical education with grassroots needs, and contributing to the high-quality development of regional healthcare.

Disclosure statement

The author declares no conflict of interest.

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