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Construction of the Ideological and Political Education System for Nursing Professional Practical Training under the New Medical Science Context

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Abstract: The construction of the new medical science paradigm focuses on the high-quality cultivation of medical professionals in the modern era, emphasizing the critical integration of technical empowerment and ideological education within medical curricula. The nursing practical training course serves as the core carrier that bridges theoretical teaching and clinical practice. It represents a fundamental platform for cultivating students' clinical practical abilities, professional ethics, and the foundational aspirations of healthcare practitioners. Currently, university nursing practical training programs face several significant challenges, including an overemphasis on technical skills training at the expense of value guidance, fragmented integration of ideological education, an incomplete ideological education framework, and an imperfect evaluation mechanism. These existing issues make it difficult to meet the rigorous requirements of the new medical science paradigm for integrating moral and technical education. Based on the new medical science education concept, this paper systematically combines the characteristics of nursing practical training teaching and explores the unique ideological and political elements embedded in the practical training process. Consequently, it constructs a comprehensive 'three-dimensional goals, four-layer carriers, five-dimensional paths, and multi-dimensional evaluation' ideological and political education system specifically designed for practical training courses. This framework aims to deeply integrate practical training teaching with ideological education, thereby comprehensively enhancing the clinical practical capabilities and overall vocational professionalism of nursing students. Ultimately, this study provides valuable pedagogical innovation references for the cultivation of high-quality nursing talents in the contemporary healthcare landscape.

Keywords: new medical science; nursing education; practical training; ideological education; education system

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1. Introduction

The development of modern medical science represents a pivotal shift in the approach to medical education, emphasizing the integration of technical expertise with humanistic values. This new direction challenges the traditional model that prioritizes professional skills while often overlooking the importance of cultivating ethical and humanistic qualities. The fundamental goal of this approach is to nurture well-rounded medical professionals who possess not only exceptional technical abilities but also strong humanistic qualities, professional accountability, and innovative thinking. Within this framework, the nursing profession stands out as a cornerstone of healthcare services, characterized by its practical nature, service-oriented focus, and inherent humanistic attributes. Practical training courses are integral to nursing education, encompassing foundational nursing practices, specialized care, and critical response techniques. These courses serve as essential platforms for students to refine their technical skills, standardize operational procedures, and develop their professional character, ensuring they are prepared to meet the demands of clinical practice.

Nursing practical training differs significantly from theoretical instruction, as it emphasizes hands-on simulation exercises, scenario-based drills, and the application of practical skills. Activities such as non-sterile procedures, precise verification processes, critical response techniques, and effective communication with patients inherently incorporate valuable ideological and ethical elements. These include fostering a rigorous and realistic approach, cultivating respect for life, instilling a sense of responsibility, and promoting humanistic care. Such elements provide a unique opportunity for immersive ethical education within the practical training environment. However, current nursing education practices in many universities often prioritize skill acquisition as the primary objective, leading to notable gaps in the integration of ideological and ethical education. Specifically, ideological education is frequently disconnected from practical operations, relegated to post-class discussions rather than being embedded throughout the training process. Additionally, the absence of a systematic framework for ideological education results in unclear objectives, inconsistent implementation methods, and a lack of structured pathways for integration. Furthermore, assessments predominantly focus on technical proficiency, neglecting the evaluation of students' self-discipline, service-oriented mindset, and professional ethics [1]. This imbalance often leads to graduates who meet technical standards but lack the ethical and humanistic qualities essential for clinical roles.

Addressing the challenge of overemphasizing technical skills at the expense of moral and ethical development in nursing practical training requires a comprehensive approach. To align with the objectives of modern medical science, which advocates for the integration of moral and technical education, this paper proposes a systematic framework for embedding ideological and ethical education into nursing practical training. By analyzing the teaching processes and professional requirements of nursing practice, the framework aims to bridge the gap between skill development and value formation. This approach seeks to harmonize the objectives of practical training and ethical education, ensuring that both progress in tandem [2, 3]. The ultimate goal is to foster high-quality development in nursing education, equipping students with the necessary skills and ethical grounding to excel in clinical settings and contribute meaningfully to the healthcare profession.

2. Core Connotation and Existing Problems of Ideological and Political Education for Nursing Practical Training under the New Medical Science Context

2.1. Core Educational Connotation

In the evolving framework of new medical science, ideological and political education within nursing practical training is designed to seamlessly integrate value-based guidance into all aspects of the training process. This approach ensures that the cultivation of professional ethics and conduct is not treated as an isolated component but is embedded within practical operations, scenario simulations, skill assessments, and training management. The ultimate educational goal is to achieve a harmonious blend of skill development, moral cultivation, and character shaping. The core educational connotation of this approach can be understood through four interconnected dimensions. Firstly, life education emphasizes reverence for life, aiming to instill in students a deep respect for patients and a commitment to promoting health. This dimension fosters the foundational professional aspiration of valuing human life and dignity. Secondly, the cultivation of a rigorous and standardized spirit focuses on developing meticulousness and adherence to procedural accuracy during practical operations. This ensures that students approach their tasks with precision and reliability, which are critical in medical practice. Thirdly, humanistic education highlights the importance of empathy and effective communication, encouraging students to provide compassionate care and establish meaningful connections with patients. This dimension enhances interpersonal skills and promotes a patient-centered approach. Lastly, vocational education underscores the significance of fulfilling professional duties and responsibilities,

nurturing sentiments of dedication, selflessness, and a commitment to safeguarding public health. Together, these dimensions create a comprehensive framework for nurturing nursing professionals who are technically proficient, ethically grounded, and empathetically engaged.

2.2. Current Problems in the Ideological and Political Education of Practical Training Courses

The educational philosophy in practical training courses often exhibits a significant deviation, with a noticeable disconnection between skill development and moral education. Many training instructors prioritize a "skills first" approach, emphasizing operational norms and technical proficiency as the primary objectives of practical training [4, 5]. This perspective tends to isolate the process of value shaping, relegating ideological and political education to theoretical classes or specialized courses. Consequently, the integration of skills training with moral and ideological education becomes fragmented, reducing the latter to a superficial formality rather than a substantive component of the training process. This separation undermines the holistic development of students, as it fails to recognize the inherent educational value embedded within practical training activities. A more integrated approach is necessary to ensure that both technical skills and moral values are cultivated simultaneously, fostering well-rounded professionals who are not only competent but also ethically grounded.

The absence of a systematic framework for incorporating ideological and political education into nursing practical training courses presents a significant challenge. Currently, there is no unified design that outlines clear educational objectives, allocates dedicated teaching resources, or establishes standardized implementation procedures [6, 7]. This lack of structure leads to a fragmented approach, where instructors rely on personal experience to introduce ideological and political content. Such ad hoc methods result in scattered and inconsistent materials, with no clearly defined entry points for integrating these elements into the curriculum. Without a cohesive strategy, the educational impact remains limited, as the sporadic inclusion of ideological and political themes fails to achieve a consistent and meaningful influence on students. A structured and well-defined system is essential to ensure that these educational components are seamlessly integrated into practical training, enabling a more comprehensive and impactful learning experience.

The capabilities of training instructors in delivering ideological and political education are often insufficient, which limits the depth and effectiveness of such efforts. Many instructors focus primarily on clinical teaching and operational skills, with limited exposure to systematic training in ideological and political education. This lack of preparation hinders their ability to identify and leverage the implicit ideological and political elements present in practical training scenarios [8, 9]. As a result, their capacity to provide meaningful value guidance is weakened, and they struggle to create an immersive and impactful moral education experience. To address this issue, it is crucial to enhance the professional development of instructors by offering targeted training programs that equip them with the necessary skills and knowledge. By doing so, educators can better integrate moral and ideological education into their teaching practices, fostering a deeper and more transformative learning environment for students.

The evaluation mechanisms used in practical training courses are predominantly focused on technical proficiency and adherence to procedural standards, neglecting the assessment of ideological and political dimensions. Current assessment systems fail to incorporate indicators related to professional ethics, self-discipline, humanistic service, and teamwork, which are critical components of professional virtues. This omission diminishes the emphasis placed on cultivating these qualities, as students are not compelled to prioritize their development. To address this gap, it is essential to design a more comprehensive evaluation framework that includes both technical and moral criteria. By integrating these elements into the assessment process, students can be encouraged to value and develop their professional virtues alongside their technical skills.

Such an approach would not only enhance the overall quality of practical training but also contribute to the formation of ethically responsible and well-rounded professionals.

3. Construction of the Ideological and Political Education System for Practical Training Courses in the New Medical Science Context

In response to the evolving demands of new medical science education and the challenges faced in nursing practical training courses, a comprehensive ideological and political education system has been proposed. This system is designed to integrate seamlessly into the entire process of practical training, ensuring that educational objectives are met in a systematic and structured manner [10]. The framework consists of four key components: three-dimensional educational goals, which aim to address cognitive, emotional, and behavioral aspects of learning; four-level educational carriers, which provide diverse platforms and methods for delivering content; five-dimensional implementation paths, which outline specific strategies for embedding ideological and political education into practical training; and a diversified evaluation system, which ensures that the outcomes are assessed comprehensively and fairly. By adopting this approach, the aim is to create a standardized and sustainable model for ideological and political education that aligns with the broader goals of medical science education.

3.1. Establishing Three-Dimensional Collaborative Educational Goals

In alignment with the evolving standards of medical science, which emphasize the integration of moral and technical education, the educational objectives for nursing practical training have been restructured to achieve a comprehensive, three-dimensional collaborative framework. This framework encompasses the development of knowledge-based skills, professional competencies, and value-oriented literacy. Firstly, the skill-oriented objective focuses on strengthening students' practical abilities in fundamental nursing, specialized nursing, and critical care practices, ensuring that clinical operations are performed with precision and adherence to standardized protocols. Secondly, the competency-based objective aims to enhance students' capacity to adapt effectively to clinical scenarios that require immediate action, fostering their abilities in doctor-patient communication, teamwork, and problem-solving within their professional roles. Lastly, the value-oriented objective emphasizes the cultivation of core professional attributes, including a profound respect for life, a commitment to responsibility, the practice of humanistic care, and a dedication to service. These qualities are essential for meeting the demands of contemporary clinical nursing roles. By integrating these dimensions, the training program seeks to prepare students comprehensively for the multifaceted challenges of modern healthcare environments.

3.2. Building Four-Level Progressive Educational Carriers

Based on the nursing practical training teaching scenarios, four progressive educational carriers are developed to provide comprehensive and immersive learning experiences. These carriers include the practical training classroom, simulation exercises, scientific and technological training, and volunteer services. The first carrier, the basic practical training classroom, focuses on foundational skills such as sterile operation, vital sign monitoring, and intravenous infusion. This stage emphasizes cultivating a meticulous approach to professional ethics and fostering a disciplined mindset. The second carrier involves scenario-based simulations, which are designed to enhance students' ability to manage critical situations, such as addressing patient care needs and providing support in complex caregiving environments. These simulations aim to strengthen qualities such as empathy and accountability. The third carrier integrates skill competitions and scientific training, combining job-related tasks, coursework, competitive activities, and certification processes to refine technical expertise and promote a spirit of precision and craftsmanship. Finally, the fourth carrier emphasizes social practice, encouraging students to engage in community health services, elderly care initiatives, and public health education. These activities are intended to deepen students' understanding of societal needs and instill a sense of civic responsibility. Through these interconnected

carriers, students are equipped with both technical proficiency and a broader awareness of their role in serving society.

3.3. Constructing Five-Dimensional Integrated Implementation Paths

Deep exploration of ideological and political elements in practical training is essential for achieving precise education. By aligning each nursing practical training project with specific ideological and political elements, an educational model of "one project, one ideological and political point" can be established. For instance, sterile operation and three-check-seven-match practical training emphasize the importance of self-discipline and responsibility awareness [11, 12]. Emergency-related practical training highlights the professional values of prioritizing life and effective crisis response. Training focused on elderly and chronic disease care integrates humanistic care and respect for the elderly, fostering qualities of empathy and compassion. Public health nursing practical training incorporates themes of social responsibility and dedication, ensuring that each skill training session serves as a platform for instilling values and nurturing professional ethics.

Optimizing the teaching mode for training is crucial to achieving seamless integration of ideological and political education. Moving away from rigid instructional methods, a dynamic approach combining "case introduction, situational immersion, and reflection and summary" is recommended. Prior to training sessions, value-oriented discussions can be initiated using clinical nursing error cases and exemplary deeds of medical staff. During the sessions, instructors should provide standardized demonstrations and maintain close supervision to promptly address students' habits that may hinder professional growth, thereby reinforcing a rigorous professional mindset. Post-training assignments focused on career reflection can guide students in identifying areas for improvement and deepening their understanding of professional responsibilities. This approach ensures that skill development and ideological education progress in tandem, fostering a holistic learning experience [13, 14].

Developing a dedicated resource library for ideological and political education in nursing training is a strategic step toward standardizing and enhancing teaching materials. Collaboration among university training instructors, clinical head nurses, and ideological and political educators can facilitate the creation of a comprehensive repository. This library should include positive clinical case studies, cautionary examples of nursing errors, accounts of exemplary performance by frontline medical staff, and typical scenarios of doctor-patient communication. Organizing these resources by categories such as basic nursing, internal medicine nursing, surgical nursing, and emergency nursing ensures systematic access to relevant materials. By addressing the challenges of scattered and outdated teaching resources, this initiative provides consistent support for integrating ideological and political education into nursing training.

Enhancing the ideological and political education capabilities of dual-teacher trainers is vital for effective implementation. Establishing a regular training mechanism for educators can include specialized research and lesson preparation sessions focused on ideological and political teaching in nursing courses. This enables trainers to identify relevant ideological and political elements, deliver value-oriented education, and guide students in developing professional ethics. Additionally, a dual-teacher co-training model involving both academic instructors and clinical professionals, such as experienced nurses and head nurses, can bridge the gap between campus-based training and real-world clinical practice. By sharing firsthand experiences and insights from clinical settings, these professionals can enrich the educational process, ensuring that students gain practical understanding alongside theoretical knowledge [10].

Expanding ideological and political education scenarios beyond the classroom is essential for fostering a deeper understanding of professional values. A one-to-two integration model can be implemented, where students participate in community-based activities such as chronic disease nursing, home rehabilitation guidance, and campus health promotion initiatives. These real-world service scenarios allow students to apply the humanistic nursing concept in practice, experiencing the societal impact of their

profession. Such activities help students overcome professional biases, strengthen their sense of mission, and enhance their identity as nursing professionals. By engaging in meaningful interactions with diverse populations, students can develop a more profound appreciation for the social value of their work, reinforcing their commitment to the nursing profession.

3.4. Establish a Diversified Comprehensive Evaluation System

A diversified comprehensive evaluation system can be established by implementing a tripartite structure that integrates skill assessment, quality evaluation, and process assessment. This approach moves beyond the traditional reliance on skill assessment alone, creating a more holistic framework for evaluating student performance. The total score is distributed across three components: skill assessment accounts for 60%, emphasizing the standardization and proficiency of students' operational abilities; process performance contributes 25%, focusing on aspects such as training attitude, attention to detail, teamwork, and communication skills; and comprehensive ideological and political quality accounts for 15%, which is assessed through reflective training reports, volunteer service contributions, and career-related insights. To ensure objectivity and inclusivity, multi-party evaluation methods are employed, including assessments by teachers, peer evaluations within groups, and self-evaluations by students. This system transforms abstract qualities related to career readiness into measurable indicators, enabling a more structured and quantifiable evaluation process. By aligning assessment methods with educational objectives, this approach fosters a learning environment where evaluation drives both academic and personal development, ensuring that students are better prepared for their future professional roles.

4. Implementation Guarantee and Optimization Strategies for the Education System

4.1. Improve the Institutional Guarantee Mechanism

Enhancing the teaching management system for ideological and political education within nursing training programs is essential for fostering a comprehensive educational framework. This involves integrating the objectives of ideological and political education into various aspects of the training process, including the development of teaching outlines, lesson plan designs, and assessment methodologies. By embedding these goals throughout the educational process, the system ensures that ideological and political education becomes a consistent and integral part of the curriculum. Furthermore, it is crucial to clearly define the responsibilities of training instructors in delivering ideological and political education, thereby holding them accountable for its effective implementation. To reinforce this accountability, the outcomes of ideological and political education should be incorporated into the evaluation criteria for teaching performance and research activities. This approach compels educators to actively fulfill their responsibilities in this area [15]. By institutionalizing these measures, the system guarantees the regular and systematic implementation of ideological and political education, thereby optimizing its impact on nursing training programs.

4.2. Dynamically Update Ideological and Political Resources

Leveraging the collaborative platform between schools and colleges, it is essential to continuously gather and integrate the most recent clinical nursing cases, exemplary achievements within the healthcare industry, and representative doctor-patient interactions. This dynamic updating of the ideological and political resource library ensures alignment with the evolving demands of modern medical science and the specific requirements of clinical roles. By maintaining a real-time approach to resource collection and integration, the educational framework can enhance its relevance and precision, thereby fostering a more targeted and effective ideological and political education. This approach not only addresses the immediate needs of healthcare professionals but also supports the development of a forward-looking curriculum that adapts to advancements in medical practices and societal expectations.

4.3. Strengthen the Whole-Process Ideological and Political Education Supervision

Leveraging the capabilities of an intelligent training and teaching platform, the entire process of students' training, including their participation in ideological and political practice activities and subsequent reflective exercises, can be systematically recorded and monitored [16]. This approach facilitates the establishment of comprehensive education records, enabling educators to identify areas of weakness or inefficiency in the delivery of ideological and political education. By addressing these gaps promptly, the overall quality and effectiveness of the educational process can be significantly enhanced. Furthermore, this system promotes a continuous cycle of improvement by providing actionable insights into the alignment of training methodologies with desired educational outcomes, ensuring that the ideological and political education remains robust and impactful throughout the learning journey.

5. Conclusion

In the context of contemporary medical education development, the cultivation of nursing professionals should emphasize the coordinated integration of advanced practical competence, professional responsibility, and ethical awareness. Practical training courses in nursing serve as a central platform for developing clinical skills, strengthening professional judgment, shaping occupational identity, and guiding students toward patient-centered values. Therefore, these courses should not be limited to technical operation training alone, but should also function as an important carrier for the coordinated development of knowledge, ability, and professional character.

To address existing shortcomings in practical training, including the overemphasis on technical skills, insufficient attention to ethical cultivation, fragmented instructional design, and the lack of a systematic educational framework, this paper proposed an integrated educational system composed of three-dimensional objectives, four levels of instructional carriers, five-dimensional implementation pathways, and diversified evaluation mechanisms. This framework helps bridge the separation between skills training and value-oriented education, promotes the organic connection between theoretical learning and practical application, and supports the deep integration of competency development with professional ethics cultivation. As a result, practical training can better fulfill its comprehensive educational role in nursing education.

Future work should focus on continuously improving practical training teaching through systematic optimization of instructional pathways, timely updating of teaching resources, enhancement of faculty development, and refinement of evaluation standards. Greater attention should also be given to the consistency, operability, and sustainability of the integrated system in different teaching contexts. Through ongoing improvement and quality enhancement, nursing practical training courses can more effectively support standardized and high-level talent cultivation, thereby preparing more nursing professionals who possess solid technical competence, sound ethical judgment, and strong adaptability to the evolving needs of the medical and health sector.

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