

Exploration of the Reform in the Integrated Development of Nursing Education and Innovation & Entrepreneurship Education

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ABSTRACT

The integrated development of nursing education and innovation & entrepreneurship education is a crucial approach to cultivating high-quality nursing professionals and advancing the discipline of nursing. This paper discusses the main issues currently faced in the integration process and provides reform suggestions from six aspects: curriculum system, teaching methods, practical teaching platforms, project competitions, faculty development, and evaluation systems. These explorations aim to offer theoretical support and practical references for promoting the deep integration of nursing education and innovation & entrepreneurship education, ultimately enhancing students' innovation and entrepreneurial capabilities.

Innovation is the core driving force of social progress, while entrepreneurship is a key means to promote economic and social development and improve people's livelihoods. In 2016, the State Council of China issued the "National Innovation-Driven Development Strategy Outline," which clearly proposed that China aims to be at the forefront of innovative countries by 2030 and build a world-leading technological innovation power by 2050^[1]. To achieve the goal of building an innovation-driven nation, the cultivation of innovative, entrepreneurial, and interdisciplinary talents is one of the essential foundations. Innovation and entrepreneurship education has become an important part of talent cultivation in higher education, and the integration of professional education with innovation and entrepreneurship education has gradually

emerged as a critical pathway to achieving the goals of innovation and entrepreneurship education. For nursing education, the question of how to effectively realize the deep integration of professional education with innovation and entrepreneurship education remains a key challenge.

1. The Significance of the Integrated Development of Professional Education and Innovation & Entrepreneurship Education

1.1 Meeting the Demand for High-Quality Nursing Talent in Society

The "Healthy China 2030" Planning Outline emphasizes the need to advance the construction of a Healthy China^[2]. In the context of "big health," nursing professionals

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have become a crucial force in achieving the goals of Healthy China ^[3]. With the rapid development of health-care and the growing demand for higher quality nursing services, traditional nursing education models are increasingly unable to fully meet the current and future talent needs. Integrating professional education with innovation and entrepreneurship education can cultivate high-quality nursing professionals who possess both solid professional knowledge and innovative practical skills. Through this integration, students not only master fundamental nursing skills but also develop the ability to innovate in solving complex clinical problems, optimizing nursing processes, and developing nursing technologies. These interdisciplinary nursing professionals can better adapt to diverse professional environments and make significant contributions to advancing standardized, precise, and personalized services in the nursing field.

1.2 Promoting the Development of the Nursing Discipline and Facilitating the Integration of Industry, Academia, and Research

The development of the nursing discipline requires new insights, theories, skills, and perspectives as its foundation and driving force ^[4]. The integration of professional education with innovation and entrepreneurship education provides new momentum for both practical and theoretical innovations in nursing. By strengthening this integration, nursing education can better align with industry and research needs, guiding students to engage in real-world industry-academia-research projects and enhancing their research and practical abilities. This model not only drives breakthroughs in nursing disciplines in areas such as academic research, technology development, and service innovation, but also promotes collaborative innovation between industry, academia, and research, improving the conversion rate and commercialization of nursing technologies and products. This creates sustained momentum for the advancement of the nursing discipline. At the same time, the innovation awareness and practical abilities developed by students in this process will also feed back into the reform of nursing education, establishing a virtuous cycle of interaction between the discipline and society.

2. Issues in the Integrated Development of Professional Education and Innovation & Entrepreneurship Education

2.1 Unclear Educational Objectives

In the process of integrating nursing professional education with innovation and entrepreneurship education,

there is often a lack of clearly defined educational objectives. On one hand, nursing education focuses on developing students' professional abilities and clinical skills. On the other hand, innovation and entrepreneurship education emphasizes stimulating students' innovative thinking and entrepreneurial abilities. When these objectives are unclear or not effectively aligned, students struggle to understand the overall direction of their curriculum, which hinders their ability to integrate knowledge from both areas.

2.2 Disjointed Curriculum System

In many higher education institutions, there is an absence of a well-established curriculum system for integrating nursing education with innovation and entrepreneurship education ^[5]. Nursing programs typically focus on basic medical knowledge and nursing skills, while innovation and entrepreneurship courses are often set up independently, lacking a close connection with professional knowledge. This disjointed curriculum system prevents students from effectively applying innovation and entrepreneurship knowledge in their professional learning, leading to poor integration of the two educational components.

2.3 Difficulty in Resource Integration

The integration of nursing education and innovation and entrepreneurship education requires different types of resources, such as clinical practice platforms and spaces for innovation and entrepreneurship activities. However, due to being managed by different departments or schools, resource integration is often inefficient. Additionally, there is an unequal distribution of resources across institutions. This situation limits students' practical opportunities in the integrated educational model, impeding the effectiveness of the educational process.

2.4 Insufficient Faculty Capacity

Currently, nursing education instructors primarily focus on the professional field and lack knowledge and practical experience in innovation and entrepreneurship. On the other hand, instructors specializing in innovation and entrepreneurship education have limited understanding of nursing-specific requirements, making it difficult for them to meet the dual demands of integrated education. As a result, the implementation of courses is less effective. Some teachers lack hands-on experience in innovation and entrepreneurship and primarily rely on theoretical instruction, which hinders the quality of innovation and entrepreneurship education. Consequently, the potential for teachers to act as guides for students is not fully realized ^[3].

2.5 Inadequate Evaluation Mechanism

The integration of nursing and innovation & entrepreneurship education lacks a scientific and systematic evaluation mechanism. The current teaching evaluation system mainly focuses on assessing students' operational skills and theoretical knowledge, while the evaluation of innovation capabilities and entrepreneurial qualities is often neglected. Due to the absence of a reasonable assessment of students' innovation and entrepreneurial achievements, students often lack clear goals and motivation when participating in innovation and entrepreneurship education. This reduces the potential for maximizing the effectiveness of the education process.

3. Constructing Pathways for the Integrated Development of Professional Education and Innovation & Entrepreneurship Education

3.1 Constructing an Integration-Oriented Curriculum System Based on Nursing Professional Needs

Starting from the demands of the nursing profession, a curriculum system that integrates innovation and entrepreneurship should be designed based on the characteristics of nursing education. In the curriculum design, elements of innovation and entrepreneurship should be incorporated, creating a seamless connection between foundational nursing courses, clinical nursing professional courses, and innovation & entrepreneurship courses. For example, innovative case-based teaching can be introduced in basic courses such as anatomy and pathology, and clinical nursing courses can include topics such as medical innovation product design and nursing service model innovation. In courses like geriatric nursing, discussions on China's aging population, the status of chronic disease rehabilitation, the needs and operations of nursing homes both domestically and internationally, and the future prospects of the elderly care industry can be introduced, encouraging students to explore entrepreneurial opportunities in the elderly care sector and providing relevant support^[6]. Additionally, elective courses or special lectures can be set up to broaden students' entrepreneurial perspectives in the nursing field. By establishing a clearly modular curriculum system, students will be ensured to master solid professional skills while stimulating their innovative capabilities and entrepreneurial potential.

3.2 Reforming Teaching Methods to Cultivate Innovative Thinking

A variety of flexible and diversified teaching methods should be adopted to cultivate students' innovative think-

ing. For instance, project-driven learning (PBL) based on innovation and entrepreneurship projects, case-based teaching of innovation and entrepreneurship education, small group innovation discussion-based learning, and simulation techniques can be used to embed innovation and entrepreneurship knowledge within the nursing curriculum. At the same time, students should be encouraged to research and analyze clinical issues, exploring innovative solutions from real-world problems. This approach not only enhances their enthusiasm and motivation for innovation but also improves their teamwork and communication skills^[7]. Moreover, teachers can guide students to approach nursing challenges and opportunities from multiple perspectives through open-topic designs and interdisciplinary cooperation, thus fostering students' abilities to identify, analyze, and solve problems.

3.3 Establishing an Integrated Practical Teaching Platform for Professional Education and Innovation & Entrepreneurship Education

Building an integrated practical teaching platform is key to promoting the fusion of professional education and innovation & entrepreneurship education. Universities can leverage on-campus training bases, affiliated hospitals, and community service centers as off-campus practical training bases to introduce innovation and entrepreneurship practice modules, such as simulating medical product development or optimizing nursing service processes. At the same time, it is important to actively collaborate with off-campus innovation and entrepreneurship platforms and enterprises to establish a collaborative education mechanism, offering students more opportunities for real-world practice. Furthermore, virtual simulation labs and innovation labs can be used to strengthen students' hands-on ability and experiential understanding of innovation and entrepreneurship, thereby achieving a deeper integration of professional education with innovation and entrepreneurship education.

3.4 Building a Dual-Qualified Faculty Team

A dual-qualified faculty team is a critical guarantee for the integrated development of professional education and innovation & entrepreneurship education. Only with excellent educational resources can we cultivate high-level innovation and entrepreneurship talents^[8]. Universities should adopt multiple approaches to cultivate and recruit teachers who possess both a nursing professional background and knowledge in innovation and entrepreneurship. On one hand, existing faculty members should be encouraged to participate

in innovation and entrepreneurship training programs to enhance their teaching abilities. On the other hand, industry experts and business executives with rich entrepreneurial experience should be hired as part-time instructors to fill gaps in the teaching staff. For example, clinical nursing staff with strong innovation capabilities could be selected to serve as innovation mentors^[9], and healthcare institution managers or healthcare entrepreneurs could be invited to serve as entrepreneurship mentors. This would contribute to building a professional external mentor team, which would jointly participate in the integration of innovation and entrepreneurship education in nursing practice training^[10].

3.5 Focusing on Projects and Competitions as Main Pathways

Project-based learning organizes students and teachers around specific tasks, promoting interdisciplinary collaboration and research. When combined with competition-based learning, it not only emphasizes the competitive aspect but also fosters the integration and exchange of knowledge, helping to elevate students' self-standards. Innovation and entrepreneurship education can utilize both project-based and competition-based learning models to construct three levels of projects: technological projects, research projects, and innovation and entrepreneurship training projects. This would enhance students' learning capabilities and overall competitiveness^[11]. Technology innovation project-based learning helps deepen students' understanding of knowledge, cultivates their ability to select topics, form teams, and choose mentors, and promotes interdisciplinary collaboration and resource sharing. Research project participatory learning allows students to engage in faculty-led research, gain exposure to cutting-edge knowledge and technologies, improve their innovative thinking and problem-solving abilities, and enhance their practical skills, all of which contribute to technological innovation. Innovation and entrepreneurship training projects foster teamwork, entrepreneurship skills, and entrepreneurial ethics by incubating and training innovative projects. This helps merge interdisciplinary work and professional practice, enabling students to enhance their entrepreneurial competencies and increase their innovation and entrepreneurship levels.

3.6 Optimizing the Student Evaluation System

A scientific evaluation system is a key measure for assessing the effectiveness of integrated professional and innovation & entrepreneurship education. When optimizing the evaluation system, it should comprehensively assess

multiple dimensions such as knowledge mastery, skill application, innovative capacity, and overall competencies. A combination of formative and summative assessments can be introduced, such as evaluating students through project reports, case analyses, and presentations of innovation and entrepreneurship achievements. Additionally, attention should be paid to assessing students' soft skills, such as communication, teamwork, and problem-solving abilities. By constructing a diversified evaluation system, students' enthusiasm for learning can be stimulated, providing strong support for their future development.

4. Conclusion

The integrated development of nursing professional education and innovation & entrepreneurship education is an essential pathway for cultivating high-quality interdisciplinary nursing talents and serves as a key driving force for the innovation and advancement of the nursing discipline. This paper proposes specific reform pathways in six areas: curriculum system construction, teaching method reforms, practical teaching platform development, faculty team building, focus on projects and competitions, and optimization of the evaluation system. These suggestions provide theoretical support and practical guidance for achieving the integration of professional and innovation & entrepreneurship education. Through these explorations, nursing education can better align with the requirements of the new era's Healthy China strategy and meet the societal demand for high-quality nursing talent. In the future, with the deepening of reforms, the integration of innovation and entrepreneurship will further support the collaborative development of nursing disciplines with industry and research, driving nursing education from traditional models to innovation-driven approaches. This will make a positive contribution to the development of nursing and the enhancement of national health standards.

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