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Innovation and Practice of Practical Teaching Model in Surgical Nursing for College Upgrading under the Guidance of Labor Education: A Review

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ABSTRACT

Labor education is increasingly vital in nursing education, particularly for surgical nursing practice in college upgrading programs, as it fosters practical skills and professional competence. This review examines current challenges in practical teaching, including gaps in hands-on training and student engagement, and explores innovative strategies such as experiential learning and collaborative frameworks. It also evaluates teaching effectiveness and optimization to align with healthcare demands, providing theoretical and practical guidance for reforming surgical nursing education under the labor education framework.

Introduction

Labor education, as a key element of contemporary education reform, is increasingly vital in higher nursing education, particularly in surgical nursing practice for students transitioning from diploma to bachelor's programs. It aims to cultivate professional qualities and practical skills through experiential learning, addressing the "theory-practice gap" that often undermines clinical adaptability and patient safety in traditional teaching models^[1]. This approach aligns with healthcare demands by fostering cognitive, skill-based, and value-driven development.

Integrating labor education principles into surgical nursing teaching enhances students' comprehensive competencies through innovative strategies like Entrustable Professional Activities (EPAs) and simulation-based learning, which bridge theoretical knowledge with clinical tasks, promoting critical thinking and professional responsibility. Digital interventions and collaborative models further support skill acquisition and educational outcomes^[2]. This review synthesizes evidence to guide nursing reform, emphasizing the cultivation of adaptable, competent practitioners for modern surgical care.

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2. Integration and Challenges of Labor Education in Surgical Nursing Practical Teaching

2.1 The Connotation and Integration Value of Labor Education

2.1.1 The Connotation of Labor Education and Its Value in Nursing Education

Labor education emphasizes developing professional skills, responsibility, and teamwork through practical activities, aligning with constructivist and experiential learning theories that promote knowledge internalization via active participation. In nursing education, it enriches curricula by enhancing practical skills and ethical awareness, essential for competent practice. Empirical evidence shows labor education improves hands-on abilities, moral development, and professional identity, preparing students for clinical demands. Theoretical frameworks underscore active learning cycles—involving concrete experiences, reflection, and experimentation—ensuring it fosters critical thinking, ethical judgment, and collaboration. Thus, labor education bridges theory and practice, cultivating well-rounded nursing professionals for high-quality care ^{[3][4]}.

2.1.2 The Convergence of Labor Education and Nursing Professional Competency Development

Labor education's practical orientation complements nursing training by encouraging active engagement in clinical tasks, boosting adaptability and problem-solving skills. This participation cultivates clinical reasoning and decision-making, while reinforcing professional identity and ethical commitment through immersive responsibilities. Experiential learning enables students to internalize professional standards via direct involvement and reflection, aligning with competency-based education principles. By concurrently strengthening practical skills and ethical sensibilities, labor education supports holistic competency development for safe, compassionate nursing practice ^{[5][6]}.

2.1.3 The Current Status of Labor Education Application in Nursing Teaching Domestically and Internationally

Domestically, nursing education increasingly recognizes labor education's value, with institutions piloting reforms to integrate practical activities and enhance competencies and ethics. However, systematic innovation remains limited, and many programs are exploratory. Internationally, labor education is implemented through clinical internships and community service, focusing on

comprehensive qualities like social responsibility and practical skills. Research abroad emphasizes its efficacy in improving clinical abilities and professional attitudes, bridging academic and healthcare needs. Yet, innovative, structured models that holistically integrate theory and practice are scarce, highlighting the need for evidence-based frameworks to optimize outcomes ^{[3][4][7]}.

2.2 Current Challenges in Practical Teaching

2.2.1 Characteristics and Limitations of Traditional Practical Teaching Models

Traditional practical teaching models in medical-surgical nursing education, particularly in specialized undergraduate programs like top-up degree programs, remain teacher-centered and overly theoretical. Practical components are often limited to observation and simple supervised tasks, restricting active engagement and hands-on experience. This passive approach hinders the development of critical clinical reasoning and problem-solving skills. Inadequate resources, such as underdeveloped simulation labs and weak clinical partnerships, further compromise training quality. The disconnect between theory and practice limits students' readiness for autonomous decision-making in dynamic surgical settings, failing to meet modern educational demands ^{[8][9][10]}.

2.2.2 Gap Between Students' Practical Abilities and Labor Education Requirements

A significant gap exists between students' practical skills and labor education expectations, which emphasize task completion in authentic or simulated environments. Students often demonstrate poor manual dexterity, clinical adaptability, and responsiveness to unforeseen situations. Current teaching practices prioritize observation over active participation, neglecting the complexities of real nursing labor. Additionally, students lack awareness of labor education's principles, reducing their motivation and proactive engagement. Addressing this misalignment requires immersive, realistic scenarios and strategies to enhance students' recognition of labor education's value ^{[11][12][13]}.

2.2.3 Challenges in Faculty and Teaching Management

Faculty and management systems struggle to implement labor education effectively due to low awareness and inadequate training among educators. Many lack guidance to integrate labor principles into teaching, limiting mentorship in experiential learning. Management systems also lack tailored evaluation frameworks and incentives,

reducing motivation for innovation. Poor coordination between clinical and academic instructors further disrupts curriculum alignment, leading to inconsistent student guidance. Overcoming these challenges requires faculty development programs, robust evaluation mechanisms, and stronger academic-clinical integration^{[8][14][9]}.

2.3 Innovative Pathways for Practical Teaching under Labor Education Guidance

2.3.1 Constructing a Student-Centered Practical Teaching System

A student-centered practical teaching system under labor education prioritizes active engagement through task-driven and project-oriented methods, stimulating motivation and accountability. Scenario simulations and case teaching bridge theory-practice gaps, fostering clinical reasoning and operational skills. Integration of authentic clinical environments enables hands-on nursing tasks, reinforcing experiential learning and professional values. Evidence supports that such approaches enhance clinical competence and readiness^{[15][16][17]}.

2.3.2 Integration and Utilization of Diversified Practical Teaching Resources

Diversified resource integration involves establishing multi-tiered practice bases in hospitals and communities, supplemented by virtual simulation platforms for scalable, safe skill development. Strengthening academic-industry partnerships expands internships and collaborative projects, aligning education with workforce needs. Research shows this strategy broadens experiential learning and improves labor-related competency acquisition^{[18][19][20]}.

2.3.3 Teacher Team Building and Innovation in Teaching Management

Teacher development requires systematic training in labor education philosophies and clinical mentoring skills. Establishing a labor-oriented evaluation system assesses practical abilities and professional attitudes. Collaborative teams integrating academic and clinical instructors ensure consistent, relevant teaching. Such innovations enhance educational outcomes and teaching efficacy^{[15][21][22]}.

Conclusion

In conclusion, integrating labor education into surgical nursing practice teaching provides an innovative framework that addresses theory-practice disconnections and enhances students' professional competencies. This student-centered approach promotes active engagement,

critical thinking, and real-world skills development, overcoming limitations of traditional methods. Effective implementation requires strengthened teaching resources, faculty development, and systemic educational support. Future research should focus on methodologies for deeper integration and long-term impact evaluation. Ultimately, labor education aligns nursing education with healthcare demands, cultivating skilled, adaptable, and responsible professionals.

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Reference

- [1] Şimşek P, Özmen GÇ, Yavuz ME, Koçan S, Çilingir D. Exploration of nursing students' views on the theory-practice gap in surgical nursing education and its relationship with attitudes towards the profession and evidence-based practice. *Nurse Educ Pract.* 69:103624. doi:10.1016/j.nepr.2023.103624
- [2] Peñataro-Pintado E, Díaz-Agea JL, Castillo I, et al. Self-Learning Methodology in Simulated Environments (MAES©) as a Learning Tool in Perioperative Nursing. An Evidence-Based Practice Model for Acquiring Clinical Safety Competencies. *Int J Environ Res Public Health.* 2021;18(15). Published 2021 Jul 26. doi:10.3390/ijerph18157893
- [3] Peng J. [Curriculum design of incorporating labor education into biostatistics teaching]. *Sheng Wu Gong Cheng Xue Bao.* 2022;38(5):2019-2025. doi:10.13345/j.cjb.210751

- [4] Xiao L, Liao X. Research on the Guidance of Youth Labor Education Based on the “Combination of Education and Production Labor” Program Based on the Deep Learning Model. *Comput Intell Neurosci*. 2022;2576559. Published 2022 None. doi:10.1155/2022/2576559
- [5] Lewis LS, Rebesch LM, Hunt E. Nursing Education Practice Update 2022: Competency-Based Education in Nursing. *SAGE Open Nurs*. 8:23779608221140774. Published 2022 Jan-Dec None. doi:10.1177/23779608221140774
- [6] Ndawo GM. Nurse educators’ experiences regarding management practices at a nursing education institution. *Health SA*. 27:1935. Published 2022 None. doi:10.4102/hsag.v27i0.1935
- [7] Zhang Z, Ye B. Can home labor education boost teenagers’ academic performance? A Comparative analysis. *Heliyon*. 2024;10(3):e25770. Published 2024 Feb 15. doi:10.1016/j.heliyon.2024.e25770
- [8] Jakobsson J, Jangland E, Engström M, Malmström M, Drott J. Work conditions influencing professional development of specialist nurses in surgical care explored using the Job Demand-Resources theory: A qualitative study. *J Adv Nurs*. 2023;79(7):2610-2621. doi:10.1111/jan.15618
- [9] Härle K, Wennerholm C, Drott J. Evaluating the Implementation of Strategies to Improve Evidence-Based Surgical Care: A Focus Group Study. *J Adv Nurs*. . Published online Apr 24,2025. doi:10.1111/jan.16988
- [10] Al-Mugheed K, Totur Dikmen B, Bayraktar N, Farghaly Abdelaliem SM, Ahmed Alsenany S. Nursing Care and Barriers for Prevention of Venous Thromboembolism in Total Knee and Hip Arthroplasty Patients: A Qualitative Study. *J Multidiscip Healthc*. 16:547-556. Published 2023 None. doi:10.2147/JMDH.S403383
- [11] Monfre J, Batchelor F, Skar A. Improving Skin Assessment Documentation in the Electronic Health Record to Prevent Perioperative Pressure Injuries. *AORN J*. 2022;115(1):53-63. doi:10.1002/aorn.13573
- [12] Cadarin L, Skela-Savič B, Scarsini S, et al. The differences between learned and practiced competences among nurses: An international pilot study. *Nurse Educ Pract*. 64:103421. doi:10.1016/j.nepr.2022.103421
- [13] Harper GW, Neubauer LC. Teaching During a Pandemic: A Model for Trauma-Informed Education and Administration. *Pedagogy Health Promot*. 2021;7(1):14-24. doi:10.1177/2373379920965596
- [14] Drott J, Engström M, Jangland E, Fomichov V, Malmström M, Jakobsson J. Factors related to a successful professional development for specialist nurses in surgical care: a cross-sectional study. *BMC Nurs*. 2023;22(1):79. Published 2023 Mar 22. doi:10.1186/s12912-023-01258-0
- [15] Stucky CH, Knight AR, Dindinger RA, et al. Periop 101: Improving Perioperative Nursing Knowledge and Competence in Labor and Delivery Nurses Through an Evidence-Based Education and Training Program. *Mil Med*. 2023;189(Suppl 1):24-30. doi:10.1093/milmed/usad287
- [16] Epp S, Reekie M, Denison J, de Bosch Kemper N, Willson M, Marck P. An innovative leap: Embracing new pedagogical approaches for clinical education. *J Prof Nurs*. 42:168-172. doi:10.1016/j.profnurs.2022.07.005
- [17] Wilson KE, Hobbs JR. Innovative use of a flipped-classroom approach to teach fundamental nursing skills. *Teach Learn Nurs*. 2023;18(1):144-147. doi:10.1016/j.teln.2022.08.002
- [18] Najafpour Z, Zare Nasiri M, Nozarian MH, Keliddar I, Shayanfard K. Estimating the number of required nurses in different types of hospitals: An application of the workload indicators of staffing needs (WISNS) method. *PLoS One*. 2023;18(12):e0295213. Published 2023 None. doi:10.1371/journal.pone.0295213
- [19] Bowles W, Buck J, Brinkman B, Hixon B, Guo J, Zehala A. Academic-clinical nursing partnership use an evidence-based practice model. *J Clin Nurs*. 2022;31(3-4):335-346. doi:10.1111/jocn.15710
- [20] Duhoux A, Rioux-Dubois A, Poitras ME, Lazarovici M, Gabet M, Dufour E. Clinical and Organizational Nursing Innovations in Primary Care: Findings From a Stakeholders’ Symposium. *J Nurs Adm*. 2023;53(12):654-660. doi:10.1097/NNA.0000000000001362
- [21] Luckenbach A, Nelson-Brantley H, Ireland-Hoffmann G. Affiliate Faculty in Nursing Clinical Education: Student and Faculty Perceptions. *Nurse Educ*. 2021 Jul-Aug 01;46(4):245-249. doi:10.1097/NNE.0000000000000925
- [22] Dunn J. Subordination by Design: Rethinking Power, Policy, and Autonomy in Perioperative Nursing. *Nurs Inq*. 2025;32(3):e70043. doi:10.1111/nin.70043