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Construction of an Integrated Education System for Deeds and Skills in Nursing Training under the New Medical Science Framework

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Abstract: The construction of the new medical science framework aims to promote the transformation of modern medical nursing from a technical service-oriented model to a humanistic and intelligent paradigm, placing heightened demands on the cultivation of nursing professionals who possess excellent technical skills, noble moral character, and comprehensive qualities. Traditional nursing training frequently suffers from a structural imbalance in which skills training is emphasized while moral cultivation is neglected and humanistic qualities remain underdeveloped. The persistent separation of skill training and ideological education renders it difficult to meet the evolving job requirements of holistic health care in the contemporary era. This paper, grounded in the new medical science development concept, integrates the practical, service-oriented, and humanistic characteristics inherent to the nursing profession. It systematically analyzes the shortcomings and predicaments of current nursing training education through a comprehensive literature review and critical evaluation of existing pedagogical frameworks. With the core orientation of prioritizing morality, focusing on skills, integrating morality and skills, and achieving unified education, this study constructs an integrated education system for deeds and skills in nursing training across five dimensions: educational philosophy, course content, training mode, faculty development, and evaluation mechanism. The proposed framework explores implementation pathways for the deep integration of skills training with ideological education, humanistic cultivation, and professional empowerment. Ultimately, this research addresses the disconnection between deeds and skills in nursing training, facilitates the coordinated enhancement of students' professional competencies and ethical qualities, and provides theoretical references and practical models for high-quality nursing talent cultivation and instructional advancement within the new medical science context.

Keywords: new medical science; nursing training; integrated education; moral cultivation; talent development

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1. Introduction

The evolving landscape of medical science places renewed emphasis on innovation in medical education, deep interdisciplinary convergence between medicine and engineering disciplines, the revitalization of humanistic values in clinical practice, and the provision of comprehensive health services across all stages of life. This paradigm shift has fundamentally redefined both the competency standards for contemporary nursing professionals and the scope of responsibilities expected in clinical nursing roles. In this context, clinical nursing positions increasingly require more than technical dexterity; they demand a holistic professional profile characterized by unwavering ethical integrity, deeply rooted compassion, refined interpersonal communication competencies, sustained commitment to patient-centered care, and an enduring orientation toward lifelong learning and service excellence. The integration of competent action with sound moral grounding—where clinical judgment, procedural accuracy, and empathetic engagement

are inseparable—has emerged as the central objective in modern nursing education. Nursing training constitutes a pivotal pedagogical bridge linking theoretical knowledge acquired in academic settings with real-world clinical application [1, 2]. It serves not only as the primary venue for developing psychomotor proficiency but also as a structured environment where professional identity, ethical reasoning, reflective practice, and collaborative mindset are deliberately cultivated. Consequently, the pedagogical quality, curricular coherence, and faculty facilitation within nursing training programs exert a decisive influence on graduate readiness, professional adaptability, and long-term alignment with evolving healthcare system expectations and societal health needs.

Historically, undergraduate nursing training in domestic higher education institutions has predominantly adhered to a narrowly defined, procedure-centric instructional model [3, 4]. Instructional priorities have centered on the acquisition and standardization of discrete clinical techniques—including venipuncture, non-invasive physiological parameter assessment, and time-sensitive clinical interventions—often reducing training to a sequence of replicable mechanical tasks. This approach frequently marginalizes the deliberate, scaffolded development of foundational professional dispositions such as ethical discernment, conscientious self-regulation, empathic attunement, and accountability to patients and communities. As a result, a persistent conceptual and operational disjunction—commonly termed the 'dual-track' or 'compartmentalized' model—has persisted between skill acquisition and character formation. Empirical observations from clinical placement supervisors indicate that some graduates demonstrate commendable technical execution yet exhibit inconsistent adherence to ethical protocols, limited capacity for nuanced emotional responsiveness, and underdeveloped situational awareness regarding the broader implications of their actions. These gaps manifest in suboptimal clinical behaviors, including procedural perfunctoriness, affective detachment during patient interactions, and insufficient initiative in advocating for patient safety or dignity. Such limitations hinder the delivery of high-caliber, person-centered nursing care envisioned in contemporary healthcare frameworks. Addressing this challenge necessitates a systemic recalibration of nursing training curricula—not as incremental adjustment but as a purposeful reconceptualization wherein technical competence and moral agency are co-developed through integrated learning experiences, authentic clinical immersion, guided reflection, and faculty modeling grounded in both clinical excellence and ethical exemplarity. The aim is to realize a synergistic educational ecology where skill mastery inherently embodies ethical intentionality, and ethical commitment continuously informs and refines clinical performance.

2. Core Connotation of Deeds and Skills Integration in Nursing Training under the New Medical Science Framework

2.1. Core Essence of Deeds and Skills Integration

In the nursing profession, 'morality' denotes the foundational professional ethical qualities expected of nursing personnel, encompassing a constellation of interrelated attributes: compassionate commitment to patient welfare, rigorous self-discipline, steadfast accountability in clinical responsibilities, empathetic humanistic engagement, unwavering respect for patient autonomy and dignity, adherence to integrity in all aspects of care delivery, sustained dedication to professional growth, and genuine passion for the vocation. These moral dispositions constitute the indispensable ethical bedrock upon which safe, trustworthy, and person-centered clinical practice is built. 'Skills', by contrast, represent the systematically acquired, evidence-informed practical competencies essential for effective nursing service delivery—namely, proficiency in fundamental nursing procedures, mastery of discipline-specific interventions across diverse clinical settings, capacity for timely and appropriate clinical assessment and response, competence in delivering tailored health promotion and disease prevention guidance, and adeptness in managing urgent clinical situations through structured, protocol-guided approaches.

Within the evolving paradigm of new medical science—which emphasizes interdisciplinary integration, data-informed decision-making, technological augmentation, and holistic health outcomes—the integration of deeds and skills transcends traditional pedagogical compartmentalization. It deliberately moves beyond outdated models that prioritized technical proficiency at the expense of ethical formation, instead advancing a synergistic educational philosophy wherein moral reasoning and clinical capability are cultivated concurrently, reciprocally reinforcing one another. This integrated approach realizes the tripartite educational ideal of precision in technical execution, warmth and authenticity in interpersonal care, and depth and resilience in professional identity formation [5].

2.2. The Requirements of the Integrated Education Era

The construction of the new medical science advances an educational philosophy centered on collaboration between medicine and education, prioritizing humanistic values, integrating ethical development with professional competence, and fostering holistic growth. This paradigm necessitates a fundamental transformation in practical training pedagogy—moving beyond the historical compartmentalization of technical skill acquisition and moral formation. Instead, professional character cultivation must be deliberately embedded across every phase and dimension of clinical simulation, laboratory practice, community health engagement, and supervised clinical placements. Unlike conventional classroom-based ideological education, which often occurs in isolated, decontextualized modules, integrated education operates through a coherent, longitudinal, and experientially grounded framework. It leverages authentic clinical environments, carefully curated case narratives reflecting diverse patient populations and complex care scenarios, and evidence-informed professional standards to scaffold ethical reasoning and empathic responsiveness. Within these immersive contexts, learners engage not only in procedural mastery but also in reflective practice, interprofessional dialogue, and service-oriented decision-making—thereby internalizing core medical ethics principles such as beneficence, non-maleficence, autonomy, and justice. This dual-track developmental process simultaneously strengthens clinical judgment, communication proficiency, and resilience while nurturing integrity, accountability, and compassionate professionalism—key competencies aligned with national health system priorities and the evolving demands for high-caliber nursing personnel under the Healthy China initiative.

3. Current Problems in Moral and Technical Education in Nursing Practical Training

3.1. Deviation of Educational Philosophy, with a Prominent Emphasis on Skills and Neglect of Morality

Contemporary nursing practical training in higher education institutions continues to prioritize technical competence as the central axis of pedagogical design and assessment. Curriculum frameworks, clinical simulation protocols, and competency-based evaluation rubrics are predominantly structured around procedural accuracy, time efficiency, and adherence to standardized operating procedures. While such emphasis ensures foundational clinical proficiency, it inadvertently marginalizes the systematic integration of ethical reasoning, empathetic communication, professional accountability, and reflective practice into the experiential learning process. Instructors during bedside or simulation-based instruction frequently concentrate on correcting manual techniques—such as intravenous catheter insertion or vital sign measurement—while offering minimal structured guidance on moral deliberation, patient dignity preservation, interprofessional integrity, or contextual awareness of social determinants of health. Consequently, learners internalize a narrow, instrumental view of nursing identity, perceiving clinical excellence primarily through technical mastery rather than holistic person-centered care. This epistemological imbalance undermines the profession's foundational commitment to humanistic values enshrined in national nursing ethics guidelines and international standards. Without deliberate curricular scaffolding—such

as integrated ethics debriefings, narrative reflection journals, or interprofessional case-based moral inquiry—students struggle to develop coherent moral agency, leading to potential dissonance between acquired skills and lived ethical responsibility in real-world healthcare settings.

3.2. Disconnection of Teaching Content, Lack of Systematic Integration of Morality and Skills

In the current practical training curriculum for nursing education, skill-based instruction is well-structured, with clearly defined learning modules, progressive competency benchmarks, and standardized operational protocols. In contrast, moral cultivation remains largely fragmented and under-integrated: ethical content is typically delivered through brief in-class ideological guidance or isolated extracurricular activities, lacking a coherent pedagogical framework, contextual embedding, or longitudinal reinforcement. There is insufficient design of immersive, practice-anchored scenarios that authentically reflect core professional values—such as clinical empathy, respectful communication with patients and families, integrity in documentation, accountability in delegation, and compassionate end-of-life care [6, 7]. Consequently, moral education often appears peripheral rather than constitutive to clinical competence. The integration methods employed—such as standalone ethics lectures or generic value statements appended to skill demonstrations—fail to foster meaningful cognitive-affective linkage between ethical reasoning and hands-on procedural performance. This structural disjunction impedes the development of habitual ethical responsiveness, limits opportunities for reflective practice, and weakens the formation of professional identity grounded in both technical excellence and humanistic commitment. A more intentional, scaffolded, and experientially rich approach is needed—one that embeds moral deliberation directly within simulated and real-world clinical tasks, supports guided reflection on value-laden decisions, and cultivates moral agency as an inseparable dimension of nursing expertise.

3.3. Fixed Practical Training Mode, Lack of Humanistic Moral Education Scenarios

Traditional nursing practical training predominantly relies on standardized simulation models that prioritize procedural fidelity and individual skill repetition, often at the expense of contextual authenticity. This approach seldom incorporates multifaceted clinical situations—such as interdisciplinary team coordination, nuanced patient-centered communication, or time-sensitive clinical decision-making—that reflect the complexity of actual healthcare delivery. In such highly controlled, instructor-absent, and feedback-deficient environments, learners are unable to internalize the ethical weight, relational responsibility, and holistic accountability inherent in professional nursing practice. Consequently, opportunities for cultivating moral reasoning, emotional attunement, reflective self-regulation, and a sustained sense of vocation remain underdeveloped. Without repeated, guided exposure to authentic interpersonal dynamics—including empathetic listening, culturally responsive care, and collaborative problem-solving—students may enter clinical placements with limited capacity to navigate ambiguity, manage emotional labor, or sustain compassionate engagement over time. This gap manifests in observable challenges: diminished responsiveness to patient psychosocial needs, reduced adaptability during dynamic care transitions, increased susceptibility to occupational stress, and communication patterns that lack warmth, clarity, or therapeutic intent. Strengthening experiential learning through scenario-based pedagogies grounded in humanistic values is therefore essential to align technical competence with ethical professionalism.

3.4. Insufficient Teacher Capabilities, Weak Ability for Moral and Technical Co-Education

A notable challenge in contemporary vocational education lies in the uneven development of teachers' pedagogical competencies, particularly regarding the integrated delivery of technical instruction and moral cultivation. Many practical training instructors possess strong domain-specific skills but demonstrate limited capacity in curriculum design that systematically embeds ideological and political education principles alongside

professional ethics. This gap manifests in difficulties identifying, contextualizing, and articulating the inherent moral dimensions—such as responsibility, integrity, empathy, and social commitment—within hands-on training modules. Furthermore, dual-qualified educators, while bringing valuable real-world clinical or industrial experience, often lack formal training in educational theory and didactic strategies, which constrains their ability to translate authentic workplace ethical dilemmas, occupational conduct standards, and service-oriented industry norms into pedagogically sound classroom activities [8, 9]. Consequently, moral and technical co-education remains fragmented rather than synergistic, with insufficient institutional support mechanisms—including targeted faculty development programs, standardized teaching resources, peer mentoring frameworks, and quality assurance protocols—to reinforce consistent, evidence-informed integration across disciplines and training levels.

3.5. Single Evaluation System, Moral Assessment Becomes a Formality

The current practical training assessment framework places disproportionate emphasis on quantifiable skill operation scores, which constitute the dominant component of final evaluations. In contrast, dimensions such as professional ethics, medical ethics performance, humanistic service orientation, and trainee attitude during clinical or field practice are assigned minimal weight—often less than ten percent—and lack standardized, observable, and measurable criteria. Consequently, moral assessment remains largely impressionistic, relying on vague descriptors like 'good attitude' or 'cooperative spirit' without anchoring to behavioral benchmarks or documented incidents. This absence of operationalized indicators undermines the reliability and validity of ethical evaluation, rendering it susceptible to rater bias and inconsistent application across instructors and institutions. As a result, students receive insufficient feedback on their moral development, and the pedagogical incentive to internalize ethical norms is significantly weakened. Moreover, the structural imbalance contradicts the national educational principle of cultivating well-rounded talents who integrate technical proficiency with sound moral character. To realize genuine moral-technical integration, assessment systems must incorporate multi-source, behaviorally anchored metrics—including peer feedback, reflective portfolios, structured clinical encounter observations, and longitudinal tracking of ethical decision-making—thereby transforming moral assessment from a perfunctory administrative step into a meaningful, formative, and rigorously calibrated component of professional education.

4. Construction of an Integrated Moral and Technical Education System for Nursing Practical Training in the New Medical Science Context

4.1. Update Educational Philosophy, Establish the Orientation of Integrating Morality and Skills for Education

Closely aligned with the evolving demands of new medical science talent development, it is imperative to fundamentally transform the conventional paradigm of nursing practical training that historically prioritized technical proficiency while underemphasizing ethical formation. A comprehensive reorientation toward an integrated educational philosophy must be implemented—one that affirms morality as the guiding principle, technical competence as the essential foundation, and their organic unification as the core pedagogical objective. This philosophy mandates holistic, process-oriented education spanning the entire curriculum, from foundational simulation labs to advanced clinical immersion. The dual educational aims of nursing training must therefore be explicitly articulated: first, to rigorously develop students' clinical competencies—including assessment accuracy, procedural precision, interprofessional communication, and evidence-informed decision-making—and second, to deliberately foster enduring professional dispositions such as commitment to patient welfare, adherence to ethical integrity, reflective self-discipline, empathetic humanistic engagement, and accountability to societal health needs. Medical ethics education must be elevated from a peripheral or standalone module to a constitutive, cross-cutting

dimension embedded within every phase and modality of training—whether in skill drills, case-based learning, clinical preceptorship, or interprofessional simulation. Consequently, moral cultivation and technical instruction must be co-designed, co-delivered, and co-assessed using aligned rubrics, shared learning outcomes, and integrated evaluation frameworks. This synergy ensures that clinical excellence is inseparable from ethical vigilance, thereby constructing a robust, values-infused training ecosystem where technical mastery is consistently governed, contextualized, and humanized by moral reasoning and professional virtue.

4.2. Reconstruct the Training Content and Establish a Curriculum Module Integrating Morality and Skills

Relying on the school-college cooperation platform and in alignment with contemporary clinical practice standards and evolving medical education objectives, the curriculum system is systematically restructured into integrated, modular units that cohesively unify professional competence development with ethical cultivation [2, 10]. This approach deliberately overcomes the historical fragmentation between technical skill acquisition and moral formation, ensuring that ethical reasoning and behavioral dispositions are not treated as ancillary topics but embedded as foundational components within every learning activity. For each core nursing training module, specific moral competencies are explicitly mapped and scaffolded: basic nursing instruction emphasizes conscientious self-discipline, rigorous attention to detail, and steadfast commitment to professional duty; acute care nursing instruction foregrounds profound respect for human life, unwavering accountability in high-stakes situations, and sustained perseverance under demanding conditions; interpersonal communication training cultivates empathetic engagement, unconditional respect for patient autonomy and dignity, and a service-oriented mindset centered on holistic well-being; and specialized clinical training reinforces continuous professional growth, pursuit of clinical excellence, and adherence to time-honored principles of compassionate, evidence-informed care. Furthermore, authentic clinical exemplars—including narratives of exemplary practitioners who embody integrity and compassion, alongside carefully anonymized case reflections on ethical challenges—are systematically incorporated into skill-based simulations and reflective practice sessions. This dual-layered pedagogical design ensures that moral awareness, judgment, and action develop concurrently with procedural mastery, thereby realizing the integrative educational objective of cultivating both technical proficiency and ethical character in tandem.

4.3. Innovate the Training Mode and Create Immersive Integrated Educational Scenarios

The traditional standardized and mechanistic training approach is being progressively replaced by a holistic, immersive pedagogical model grounded in experiential learning principles. This new paradigm integrates scenario simulation, structured role-playing exercises, systematic clinical case analysis, and sustained ethical reflection to foster deep professional identity formation. Utilizing advanced virtual simulation platforms, trained standardized patients, and authentic de-identified clinical cases, educators reconstruct realistic, multifaceted clinical environments—including palliative care situations, end-of-life decision-making processes, interprofessional communication challenges, and time-sensitive clinical interventions [11, 12]. Throughout these carefully scaffolded experiences, assessment extends beyond technical proficiency to encompass empathic responsiveness, ethical reasoning, patient-centered communication, service standardization, and unwavering commitment to professional integrity and humanistic values. Learners are guided to adopt relational perspectives, practice perspective-taking, internalize compassionate care norms, and cultivate resilience through reflective debriefing and faculty-facilitated dialogue. The immersive methodology actively cultivates core nursing competencies such as clinical judgment, moral courage, emotional intelligence, and collaborative problem-solving. Concurrently, the principle of 'early, frequent, and iterative clinical engagement' is operationalized through longitudinal placement models, supervised bedside learning, and progressive

responsibility frameworks—enabling students to witness firsthand the societal contribution of nursing, appreciate the inseparability of technical excellence and ethical grounding, and develop a mature vocational self-concept rooted in service, accountability, and lifelong learning.

4.4. Strengthen the Dual-Teacher Team and Lay a Solid Foundation for the Integration of Morality and Skills in Teaching

A dual-teacher team model integrating clinical expertise and academic instruction is systematically established to advance the seamless integration of moral cultivation and professional skill development in nursing education. This model combines clinically experienced practitioners—such as frontline nurse managers, senior clinical nurses, and recognized exemplars of professional ethics—with full-time faculty members employed by educational institutions [13]. To ensure pedagogical relevance and authenticity, a structured clinical immersion mechanism is institutionalized, enabling full-time instructors to regularly engage with real-world healthcare settings, observe evolving ethical expectations in clinical practice, and internalize contemporary standards for patient-centered care, interprofessional collaboration, and integrity-driven decision-making. Concurrently, clinical professionals are formally invited to deliver instruction, share case-based narratives illustrating ethical dilemmas and resolutions, and co-design curricular materials that reflect authentic workplace values and behavioral norms. Teaching and research activities are routinely organized around themes such as curriculum-level moral integration, pedagogical strategies for embedding value-oriented content within technical courses, and evidence-informed approaches to designing competency-based learning experiences that simultaneously foster clinical proficiency and ethical agency. Through sustained professional development, mentoring, and collaborative lesson study, faculty progressively strengthen their capacity to deliver instruction that is both technically rigorous and ethically grounded, thereby cultivating a teaching cohort distinguished by pedagogical excellence, reflective practice, and unwavering commitment to holistic learner development.

4.5. Improve the Multi-Dimensional Evaluation and Build a Two-Way Assessment Mechanism for Morality and Skills

A comprehensive and balanced evaluation framework must be established to systematically integrate moral development with professional competence in vocational education. This framework moves decisively beyond traditional skill-centric assessment by instituting a dual-dimension scoring structure wherein professional skills constitute 60% of the total training score, while vocational moral cultivation accounts for the remaining 40%. Moral cultivation is operationalized through six empirically grounded, quantifiable indicators: training attitude—measured by punctuality, task engagement, and reflective practice; self-discipline performance—assessed via adherence to protocols, time management, and ethical conduct in simulated and real-world settings; humanistic service—evaluated by responsiveness to patient or client needs, cultural sensitivity, and dignity-preserving interactions; communication empathy—gauged through active listening, nonverbal attunement, and clarity in conveying compassion; responsibility—demonstrated by accountability for actions, error reporting, and commitment to continuous improvement; and teamwork—observed in collaborative problem-solving, role flexibility, and constructive peer feedback. Assessment employs a robust multi-source methodology—including structured student self-reflection, calibrated peer evaluations within learning teams, instructor rubric-based judgments, and longitudinal clinical mentor assessments—ensuring triangulation of evidence. Both formative process evaluation and summative final evaluation are integrated to capture developmental progression and terminal competency. Such a scientifically rigorous, transparent, and ethically anchored system serves not only as a measurement tool but also as a pedagogical lever that actively reinforces and institutionalizes the inseparability of morality and technical proficiency in professional formation [4].

5. Conclusion

The evolving landscape of medical science necessitates a fundamental reorientation of nursing education—particularly in the domain of practical training—to align with contemporary healthcare imperatives. This reorientation centers on an integrative paradigm that deliberately unifies professional skill development with ethical formation, humanistic grounding, and holistic learner growth. In contrast to historically prevalent models that prioritized technical proficiency in isolation, the proposed framework advances a coherent, system-level approach wherein moral reasoning, empathic engagement, clinical competence, and reflective practice are cultivated in tandem rather than in sequence or separation. Contemporary nursing practical training faces persistent structural challenges: divergent interpretations of educational purpose lead to inconsistent philosophical foundations; curricular content remains compartmentalized across disciplines without meaningful thematic or experiential bridges; pedagogical methods often rely on static, instructor-led simulations or fragmented clinical rotations lacking longitudinal integration; faculty development pathways insufficiently support dual expertise in both clinical instruction and values-based mentoring; and assessment practices continue to emphasize discrete procedural outcomes over integrated professional identity formation. These interrelated limitations contribute to uneven developmental trajectories among learners—where technical confidence may outpace ethical discernment, or where compassion remains contextually isolated from clinical decision-making. The integrated educational system described herein addresses these gaps through five mutually reinforcing dimensions: (1) a unified educational philosophy grounded in relational professionalism; (2) a vertically and horizontally aligned course architecture that embeds ethical inquiry, communication ethics, and cultural humility within every technical module; (3) a dynamic training mode combining scaffolded simulation, longitudinal preceptorship, interprofessional case-based learning, and structured narrative reflection; (4) sustained faculty development focused on pedagogical fluency in moral scaffolding and humanistic facilitation; and (5) a multi-modal evaluation ecosystem incorporating calibrated peer feedback, portfolio-based self-assessment, standardized patient encounters with embedded ethical dilemmas, and milestone-based competency mapping. Collectively, this system fosters the simultaneous maturation of clinical judgment, ethical agency, interpersonal attunement, and adaptive resilience—enabling learners to embody the core commitments of the nursing profession while mastering its evolving technical demands. Such alignment strengthens readiness for complex, person-centered care delivery and contributes meaningfully to the advancement of nursing as a discipline rooted in both scientific rigor and profound human significance.

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