

Article

Fostering Empathy in Vocational Nursing Students Through Whole-Process Values Education: A Pathway Development

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Abstract: Objective: This study aimed to investigate the current status of empathy and the implementation of whole-process values education among vocational undergraduate nursing students, to identify existing deficiencies in empathy cultivation, and to develop a comprehensive whole-process empathy cultivation pathway grounded in values education theory, thereby providing practical and evidence-based recommendations for curriculum reform in vocational undergraduate nursing education. Methods: A cross-sectional survey design was employed. A convenience sampling method was used to recruit 308 nursing students from a vocational undergraduate college in Haikou, China, between September and November 2024. Data were collected using the Jefferson Scale of Empathy—Nursing Student Version (JSPE-NS) and a self-designed questionnaire on values education implementation. Descriptive statistics, independent-sample t-tests, and one-way analysis of variance were performed using SPSS 26.0. Results: The mean empathy score of the participants was 93.97 ± 9.93 , indicating a moderately high level of empathy; however, the Perspective Taking dimension scored relatively lower than other dimensions. No significant difference in empathy scores was found between on-campus students and clinical interns ($P > 0.05$). The survey further revealed notable deficiencies in life education, empathy-oriented teaching within professional courses, simulation-based humanistic training, and school-hospital collaborative education. Based on these findings, a whole-process empathy cultivation pathway was developed, comprising four progressive stages: value cognition, emotional experience, behavioral training, and professional identity development. Supporting measures, including curriculum resource development, optimization of practical teaching platforms, and school-hospital collaborative evaluation mechanisms, were also proposed. Conclusion: Although vocational undergraduate nursing students demonstrated a relatively good level of empathy, a continuous and integrated cultivation mechanism spanning theoretical learning, simulation training, and clinical practice has not yet been fully established. The proposed pathway offers a practical framework for integrating empathy cultivation with values education and provides valuable implications for talent cultivation and curriculum reform.

Keywords: nursing education; empathy; values education; vocational students; curriculum reform

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1. Introduction

With the in-depth implementation of the Healthy China strategy, nursing education has set higher standards for the coordinated development of nursing students' professional competencies and humanistic literacy. National health policy documents emphasize that the training of healthcare professionals should balance professional technical competence with humanistic service capabilities. Empathy, as a crucial ability for nursing staff to understand patients' emotions and establish positive nurse-patient relationships, not only directly impacts the quality of care and the patient experience but also serves as a vital foundation for enhancing the humanistic dimension of nursing services and fostering professional ethics [1]. As an integral part of cultivating high-level technical and skilled professionals, professional undergraduate nursing education should not only strengthen the development of clinical practice skills but also place greater

emphasis on shaping nursing students' humanistic literacy and professional values, thereby achieving the coordinated development of professional competence and professional ethics.

Integrating values education into the nursing curriculum serves as a vital vehicle for fulfilling the fundamental mission of fostering virtue through education, and is also a key pathway for cultivating nursing students' professional ethos and capacity for humanistic care. In recent years, research on the application of this approach in nursing education has continued to deepen. Existing studies have actively explored areas such as the integration of values education into professional courses, humanistic nursing education, and adjustments to clinical practice instruction, confirming that this approach can promote the development of nursing students' professional identity, humanistic care, and communication skills. However, existing research has largely focused on modifications to individual courses or humanistic education during the clinical practice phase, lacking integrated studies covering the entire process of talent development—including theoretical instruction, professional courses, on-campus practical training, and clinical internships [2]. There remains a lack of systematic discussion regarding practical approaches for how values education can be embedded throughout the entire talent development process to continuously promote the development of empathy among nursing students.

At the same time, international research on nursing students' empathy has primarily centered on measuring empathy levels, identifying influencing factors, and evaluating instructional strategies, with the Jefferson Scale of Empathy—Nursing Student Version (JSPE-NS) being widely used to assess empathy levels among nursing students. Relevant studies indicate that empathy can be enhanced through instructional strategies such as coursework, scenario simulations, and clinical practice; however, existing research has primarily focused on general undergraduate nursing students, with relatively insufficient attention paid to nursing students in vocational bachelor's programs—a newly established level of education [3]. The mechanisms for cultivating empathy and pathways for integrating values education into the curriculum for this group remain to be further explored.

Based on this, the present study focused on nursing students at a vocational undergraduate institution [4]. Using the JSPE-NS scale and a self-developed questionnaire on values education, the study investigated the current state of nursing students' empathy and the implementation of values education, analyzed the weaknesses in the implementation of holistic values education in the cultivation of nursing students' empathy, and, based on the survey results, constructed a holistic values education pathway for fostering empathy among vocational undergraduate nursing students, with the aim of providing practical guidance for the advancement of values education in vocational undergraduate nursing education and the cultivation of nursing students' humanistic literacy.

2. Theoretical Foundation for the Promotion of Nursing Students' Empathy Development through Holistic Curriculum-Based Values Education

2.1. Empathy Is a Key Manifestation of Professional Competence in Vocational Undergraduate Nursing Students

Empathy refers to an individual's ability to understand the emotions, feelings, and needs of others and to respond appropriately; it serves as a crucial foundation for nursing professionals to provide humanistic care and establish positive nurse-patient relationships. Research indicates that empathy levels influence patient satisfaction, the quality of nurse-patient communication, and the nursing service experience, and are closely associated with nursing professionals' professional identity, job satisfaction, and clinical decision-making abilities. With the deepening implementation of the 'Healthy China' strategy, the talent development objectives of nursing education have gradually shifted from a sole emphasis on professional skills to the coordinated development of

professional competence and humanistic literacy. Professional undergraduate nursing education now places greater emphasis on cultivating high-level technical and skilled professionals who possess practical abilities, professional ethics, and the capacity for humanistic care [5]. Therefore, empathy is not only a vital component of nursing students' professional competence but also a key indicator for measuring the quality of nursing talent development.

2.2. Integrating Values Education Throughout the Curriculum Is a Key Pathway for Cultivating Empathy in Nursing Students

Curriculum-based values education emphasizes the organic integration of value formation, knowledge transmission, and competency development, weaving values education throughout the entire talent development process to achieve a deep integration of professional education and moral education. In recent years, research on values education in nursing curricula has gradually shifted from modifying individual courses to adopting a holistic educational approach [6]. Content such as life education, humanistic nursing, nursing ethics, and professional ethics education has been continuously incorporated into nursing curricula and clinical practice, contributing positively to nursing students' professional identity, humanistic care capacity, and empathic development.

However, current practices in curriculum-based values education remain primarily confined to classroom instruction or discrete phases of clinical practice. Effective coordination among courses—and between academic institutions and clinical training sites—remains insufficient, leading to fragmented educational experiences and discontinuity in learning progression [7]. For nursing students, empathy development is a dynamic process wherein value recognition gradually translates into professional behavior. Relying solely on isolated courses or segmented training stages hinders sustained growth. Therefore, values education must be systematically integrated across the full educational continuum—including theoretical instruction, professional coursework, on-campus practical training, and clinical practice—to establish a coherent, progressive, and cumulative system of humanistic education.

2.3. Analytical Framework for Promoting the Development of Empathy in Nursing Students through Curriculum-Based Values Education Throughout the Entire Process

Empathy development exhibits gradual and practice-oriented characteristics, progressing through sequential stages including value identification, emotional experience, behavioral practice, and professional internalization. As a foundational element integrated across the entire talent development process, values education must evolve in alignment with nursing students' developmental progression, deepening its pedagogical function to support sustained advancement from value orientation toward professional competence [8].

Building upon this theoretical foundation and the empirical findings of the present study, this paper proposes a progressive developmental pathway for cultivating empathy among undergraduate nursing students: 'value recognition → emotional experience → behavioral training → professional cultivation.' At the value recognition stage, life education and professional ethos instruction aim to establish sound professional values; during the emotional experience stage, discipline-integrated teaching—particularly patient narrative-based approaches within core professional courses—enhances empathetic responsiveness; the behavioral training stage employs on-campus simulation laboratories to bridge empathetic understanding with clinical application; and the professional cultivation stage extends curriculum-based values education into real-world clinical settings via university-hospital collaborative models, thereby facilitating the stable internalization of empathy as an enduring professional attribute [4]. Grounded in survey data from vocational undergraduate nursing students, this paper further articulates a holistic developmental pathway for empathy cultivation and outlines corresponding implementation strategies and institutional support mechanisms (As shown in Figure 1).

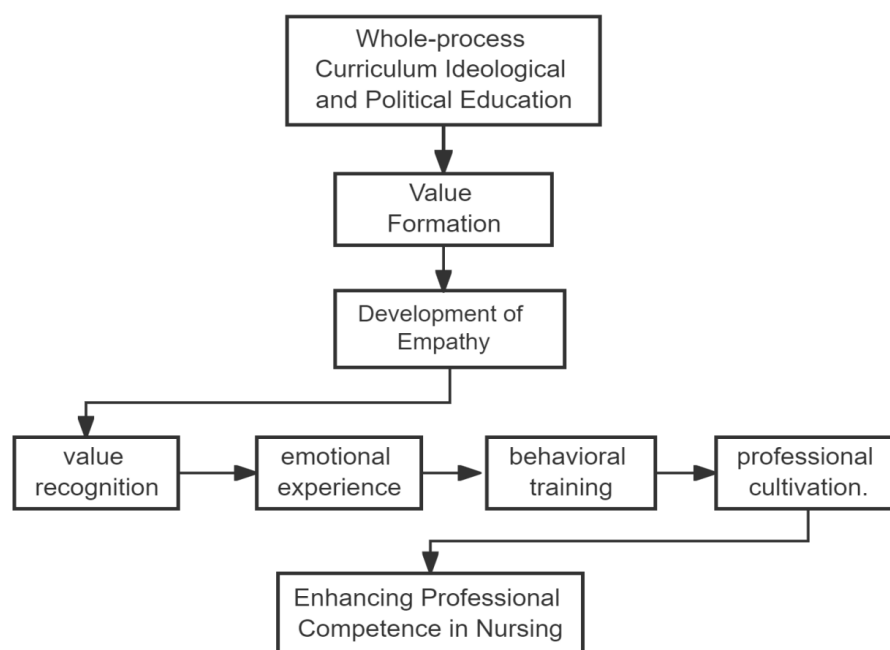


Figure 1. Logical Framework for Cultivating Empathy in Nursing Students under Holistic Curriculum-Based Values Education

3. Research Subjects and Methods

3.1. Study Participants

This study used convenience sampling to recruit vocational undergraduate nursing students from the first through fourth years, including both on-campus students not engaged in clinical rotations and those currently completing clinical placements [9]. Questionnaires were distributed through online class groups and clinical preceptor networks, yielding 336 responses. After excluding 28 invalid questionnaires—defined as those completed in under 30 seconds or exhibiting uniform response patterns across all items—308 valid responses remained, representing a valid response rate of 91.7%. The final sample comprised 213 females (69.2%) and 95 males (30.8%); 264 were current academic-year students (85.7%), and 44 were fourth-year students on clinical placements (14.3%).

3.2. Research Methods

Survey Instruments: Demographic Information Questionnaire [10].

Designed by the research team to align with the study objectives, this questionnaire collected basic demographic information including gender, academic year, and whether the respondent had commenced clinical rotations [6].

Jefferson Scale of Empathy—Nursing Student Version (JSPE-NS).

The Chinese version of the JSPE-NS was administered, comprising 20 items organized into three dimensions: perspective-taking, emotional care, and empathy [11]. Responses were recorded on a 7-point Likert scale, yielding a total score ranging from 20 to 140; higher scores reflect greater empathy among nursing students. This version has demonstrated strong psychometric properties in prior applications, and in the present study, Cronbach's α was 0.87, confirming satisfactory internal consistency and construct validity for assessing empathy levels.

Course-based Values Education Survey Questionnaire.

Developed through a systematic literature review and informed by existing scholarship on values integration in nursing education, this instrument included three multiple-choice questions corresponding to the core educational components: general

foundational courses, discipline-specific coursework, and experiential learning activities such as internships and clinical placements [2]. The questions assessed the delivery formats and frequency of instruction related to life care and empathetic practice within the curriculum, aiming to identify potential gaps across the full educational continuum.

3.3. Data Collection

Electronic questionnaires were distributed through the Wenjuanxing mini program. Before participation, respondents received clear explanations regarding the research purpose, instructions for completion, and consent procedures. Responses were collected without collection of identifying information, and each participant was permitted only one submission. Upon survey closure, two researchers jointly performed data organization and verification, discarding questionnaires exhibiting abnormally short completion durations, repetitive or non-discriminatory response patterns, or incomplete entries.

3.4. Statistical Analysis

Statistical analysis was conducted using SPSS 26.0. Continuous variables were reported as mean $\pm$ standard deviation ($\bar{x} \pm s$), and group comparisons were performed with the independent samples t-test; categorical variables were summarized as frequencies and proportions. A two-sided P-value < 0.05 was considered statistically significant [12].

4. Research Findings and Existing Issues in Student Development

4.1. Overall Empathy Scores among Nursing Students

Table 1. Scores for Each Dimension of Nursing Students' Empathy ($\bar{x} \pm S$, Points)

Dimension	Number of Items	Dimension Total Score	Average Score per Item
Perspective-Taking	8	37.82 ± 3.97	4.73
Compassionate Care	8	38.22 ± 4.78	4.48
Empathy	4	17.93 ± 2.58	4.48
Total Scale Score	20	93.97 ± 9.93	4.70

The total mean empathy score for the entire sample was (93.97 ± 9.93) points, with a mean score of 4.70 per item, placing the overall level in the upper-middle range; among these, the "perspective-taking" dimension scored the lowest, indicating that nursing students find it difficult to actively step outside their own perspective to perceive patients' suffering, which represents the core shortcoming in current empathy training [13].

4.2. Comparison of Empathy between Current Students and Clinical Students

The total empathy score for nursing students in school was (94.19 ± 10.05) points, while that for clinical students was (92.64 ± 9.61) points; the independent samples t-test revealed no statistically significant difference between the two groups ($P > 0.05$). This suggests that clinical exposure to real-life doctor-patient interactions did not yield a measurable improvement in empathy, pointing to a misalignment between academic curricula and clinical practice, as well as insufficient structured support for empathy development during clinical internships (As shown in Table 1).

4.3. Data on the Current Status of Values Education Implementation in Courses

4.3.1. Frequency of "Care for Life" Values Education Courses

Courses emphasizing care for life are offered monthly or more frequently for 131 students (42.5%), once per semester for 94 students (30.6%), occasionally for 79 students (25.6%), and not at all for 4 students (1.3%). Among on-campus students, 45.8% report regular monthly instruction in life-oriented and humanistic values education, compared with only 22.7% of interns, indicating a marked decline during internship placements.

4.3.2. Implementation of Empathy-Based Case-Based Teaching in Major Courses

Frequent implementation was reported by 199 respondents (64.9%), occasional by 82 (26.6%), and rare or never by 27 (8.5%). Among full-time students, 67.0% indicated frequent implementation, compared with 52.3% of interns, suggesting inconsistent integration of humanities and values education in clinical supervision.

4.3.3. Supporting Tasks for Humanities, Values Education during Clinical Rotations

Full-scenario experience was reported by 212 respondents (68.8%), simple reflective assignments by 76 (24.7%), theoretical instruction only by 11 (3.6%), and no humanities support by 9 (3.2%). The integration of immersive humanities activities during clinical rotations was markedly lower than during on-campus training [14].

4.4. Three Core Issues in Student Development (Data-Driven)

4.4.1. Weak Empathy-Based Values Education Teaching Design in Theoretical Courses

Data indicate that only 40% of students regularly engage with values education topics related to life care; most public ideological and political courses emphasize general moral education and lack dedicated modules addressing nursing-specific humanistic concerns—such as end-of-life issues and doctor-patient empathy. Over 30% of professional course instructors introduce humanistic content only peripherally, without integrating perspective-taking into core instructional activities, resulting in superficial delivery that fails to foster meaningful emotional engagement.

4.4.2. On-Campus Practical Training Lacks Immersive Humanistic Values Education Scenarios

On-campus practical training assessments emphasize operational standards, and the standardized patient scenario database lacks empathy-inducing situations such as end-of-life care, chronic illness-related suffering, and interactions with anxious family members; nearly 30% of students engage only in basic written reflections without immersive experiential training, leading to comparatively low performance in the "empathy through perspective-taking" dimension [15].

4.4.3. Disconnect between Campus and Hospital Education; Lack of Empathy Guidance during Clinical Rotations

Empathy scores show no significant variation between students engaged in campus-based learning and those undergoing clinical rotations, indicating a discontinuity in the integrated values education process: universities and hospitals have yet to co-develop standardized teaching frameworks for values education; clinical rotations lack structured, sustained opportunities for humanistic reflection; clinical practice is not systematically leveraged to strengthen empathic capacity; and the compassionate dispositions nurtured in academic settings prove difficult to maintain and reinforce in real-world healthcare environments.

5. Construction of a Pathway for Cultivating Empathy among Vocational Undergraduate Nursing Students Based on Holistic Values Education

The results of this study indicate that the empathy levels of vocational undergraduate nursing students are generally slightly above average; however, scores were lowest on the "putting oneself in others' shoes" dimension. Furthermore, no statistically significant difference was observed in empathy scores between students on campus and those in clinical internships, suggesting that current curriculum-based values education has not yet established a continuous, progressive mechanism for humanistic education across different stages of training. The promotion of empathy among nursing students through curriculum-based values education does not rely on a single course but should be integrated throughout the entire process of value formation, professional learning, practical training, and clinical internships. Therefore, based on the survey results and existing research, this study constructs a four-stage pathway for empathy cultivation through curriculum-integrated values education—comprising "value cognition → emotional experience → behavioral training → professional development"—(see Figure 2) to promote the sustained development of empathy among nursing students.



Figure 2. Holistic Pathway for Cultivating Empathy in Nursing Students through Curriculum-Integrated Values Education

5.1. Stage 1: Value Recognition---Laying a Solid Foundation for Empathy Development through Life Education

Survey results indicate that nursing students receive life care education infrequently, suggesting opportunities to strengthen curriculum-based values education in guiding students' understanding of life's intrinsic value and their professional mission during early academic training. Research has shown that life education can support medical students in developing humanistic values centered on respect for and reverence toward life, forming a foundational element for nurturing the professional nursing spirit and empathetic capacity; similarly, values education in vocational colleges emphasizes integrating value formation throughout the entire talent development process, aligning knowledge transmission, competency cultivation, and value guidance.

Therefore, in public foundation courses and introductory nursing courses, life education should serve as the entry point to organically integrate life care, professional ethos, education on life and death, and exemplary contributions of distinguished nursing professionals into curriculum-based values education. Through case sharing, thematic discussions, and experiential life education activities, students should be guided to recognize patient needs and internalize a patient-centered nursing philosophy, thereby establishing a robust value foundation for subsequent empathy development.

5.2. Phase Two: Emotional Experience---Promoting the Development of Empathy through Professional Courses

This study found that nursing students scored lowest on the "empathy through perspective-taking" dimension, suggesting that while students have acquired professional nursing knowledge, they still lack sufficient understanding of patients' emotions and illness experiences. Empathy maps, patient narratives, and case-based teaching have been shown to effectively support role transition and deepen emotional engagement among nursing students, thereby strengthening their communication skills with patients. At the same time, integrating values education into professional courses should extend beyond knowledge transmission to achieve meaningful alignment between clinical expertise and humanistic care.

Therefore, in specialized courses such as Internal Medicine Nursing, Geriatric Nursing, and Community Nursing, teaching methods—including patient narratives, role-playing, group discussions, and scenario simulations—should be systematically incorporated into classroom instruction using typical cases related to chronic disease management, palliative care, and geriatric care. This approach guides students to analyze disease experiences and nursing needs from the patient's perspective, shifting the emphasis of values education from knowledge delivery toward experiential learning and ensuring coordinated advancement of value orientation and professional competence.

5.3. Phase Three: Behavioral Training---Promoting the Transfer of Empathy Skills through On-Campus Simulation Training

As noted previously, survey findings indicate that nurses' capacity for perspective-taking remains the most significant current challenge; classroom-based instruction alone proves inadequate for effectively translating empathy into clinical nursing practice. Consequently, on-campus simulation training must function as a core experiential platform for cultivating empathy through values-oriented education.

Immersive experiential learning has been shown to enable nursing students to engage with patients' psychological experiences within realistic or simulated clinical contexts, thereby strengthening empathic responsiveness and reinforcing humanistic care

principles. During on-campus training, standardized patient cases should therefore be refined to incorporate emotionally complex clinical situations—including end-of-life care, chronic illness management, supportive communication with distressed individuals, and family-centered dialogue—and embed humanistic communication throughout all phases of the nursing process. Following each simulation session, instructors may facilitate structured reflection via nursing journals, small-group debriefings, and targeted faculty feedback, guiding students to analyze patient needs and critically examine their own communicative approaches. This methodology reinforces the integration of values education into hands-on learning and supports the progressive internalization of empathy from conceptual understanding to authentic clinical application.

5.4. Phase Four: Professional Development---Achieving Holistic Education through College-Clinical Collaboration

The results of this study show that there is no statistically significant difference in empathy scores between nursing students on campus and those in clinical rotations. This indicates that the clinical practice phase has not yet fully fulfilled its role in promoting the sustained development of nursing students' empathy, suggesting a certain degree of disconnect between the school's curriculum-based values education and clinical practice. Previous research has indicated that integrating values education throughout clinical nursing practice and strengthening collaboration between educational institutions and healthcare facilities supports the effective integration of theoretical learning, practical training, and professional ethics development.

Therefore, during the clinical internship phase, the collaborative education mechanism between academic institutions and clinical sites should be further refined. With professional competence as the central objective, values education must be systematically embedded across all stages of clinical instruction. Universities and clinical teaching sites should jointly define empathy development goals and operational requirements, standardizing content delivery, instructional expectations, and assessment criteria. While guiding technical skill acquisition, clinical instructors should emphasize attention to patients' psychological experiences, humanistic needs, and interpersonal communication. Structured activities—including nursing narrative sharing, case-based discussions, humanistic clinical rounds, and reflective practice—can help students progressively strengthen professional identity and deepen commitment to humanistic care. By establishing an integrated educational community comprising academic institutions, healthcare providers, and clinical educators, values education can be effectively extended from classroom instruction into authentic professional practice, thereby supporting the gradual internalization of empathy as a stable, core professional attribute.

6. Supporting Strategies for Implementation

6.1. Specialized Training for Faculty on Values Education through Empathy-Based Teaching

Chapter 4 outlined a four-stage, holistic curriculum-based values education pathway for cultivating empathy in nursing students: "value recognition—emotional experience—behavioral training—professional development." However, the effectiveness of this pathway depends not only on curriculum design but also on multiple supporting factors, including supplementary teaching resources, tiered practical training platforms, and a long-term mechanism for collaborative education between the university and the hospital [16]. To facilitate the transition of holistic curriculum-based values education from theoretical design to routine educational practice, this study establishes a systematic support mechanism centered on three key dimensions: curriculum resource development, upgrading of on-campus practical training platforms, and a closed-loop evaluation system for university-hospital collaboration, thereby providing sustained support for the stepwise development of empathy among nursing students in vocational undergraduate programs.

6.2. Improving the System of Values Education Resources to Strengthen the Foundation for Cultivating Value Awareness

Value awareness serves as the logical starting point for developing empathy among nursing students and constitutes a core component of preliminary values education within a process-oriented, curriculum-integrated framework. Institutions should establish an integrated repository of values education resources spanning general education courses, professional introductory courses, and core professional courses, organized around four thematic pillars: life education, nursing ethics, professional spirit, and humanistic care. By incorporating materials on life-and-death education, representative palliative care cases, exemplary narratives from clinical nursing practice, and resources for humanistic moral development, institutions can organically embed foundational value concepts—such as reverence for life and patient-centered care—into theoretical instruction across all academic stages, thereby cultivating nursing students' essential professional values from the outset.

Concurrently, faculty development mechanisms for values education should be strengthened through regular interdisciplinary lesson planning, thematic workshops on humanistic pedagogy, and targeted training in empathy-informed instructional design. This fosters collaboration between ideological and political educators and nursing faculty, progressively enhancing instructors' capacity to identify humanistic and ethical dimensions in course content and guide students toward deeper appreciation of life's intrinsic value. Such integration advances the coordinated advancement of knowledge transmission, skill acquisition, and value formation, delivering consistent value orientation throughout nursing students' educational trajectory.

6.3. Optimizing On-Campus Practical Training Platforms to Bridge Emotional Experiences and Behavioral Training

Emotional experiences and behavioral training constitute the critical transitional phase in shifting empathy from cognition to practical application; they must be implemented through immersive, high-empathy-load on-campus training platforms. Institutions should iteratively optimize their standardized patient (SP) scenario databases, expanding humanistic scenarios such as chronic disease care, end-of-life care, communication with anxious family members, and resolution of clinical misunderstandings. They should integrate patient narratives, role-reversal exercises, and ethical scenario simulations into the entire process of nursing skills training, enabling nursing students to personally experience patients' physical and psychological suffering in simulated clinical settings and deepen their empathetic emotional experiences.

A corresponding mechanism for phased formative assessment during on-campus training should be established to move beyond the traditional assessment model that focuses solely on procedural scores. The comprehensive training score should incorporate nursing-patient communication performance, compassionate care behaviors, the ability to see things from the patient's perspective, and the quality of training reflections [17]. Through reflection journals, group case discussions, and one-on-one feedback from instructors, nursing students are guided to proactively translate their empathetic experiences into standardized, humanistic nursing practices, thereby facilitating a smooth transition from emotional experience to practical nursing skills and promoting the deep integration of professional education with values education.

6.4. Improve the School-Hospital Collaborative Evaluation Mechanism to Ensure the Long-Term Implementation of Professional Development

Professional development represents the final stage in the stable internalization of empathy into nursing professional competence and remains the area where the disconnect between university and clinical education is most evident. Universities and clinical training sites should jointly develop a unified, comprehensive values education program covering the entire educational continuum. This includes establishing phased empathy development goals, aligned teaching content, and standardized clinical instruction criteria

to integrate theoretical instruction, on-campus practical training, and clinical internships—thereby bridging the gap between academic and clinical values education.

Clinical instructors must embed humanistic care, empathetic communication, and professional ethics throughout the internship process. Through structured activities—including humanistic rounds, nursing narrative sharing, analysis of doctor–patient cases, and monthly empathy reflection sessions—they reinforce students' practical clinical empathy skills and consolidate humanistic understanding cultivated during academic study. Building on this, an integrated, full-cycle evaluation system spanning both school and hospital settings should be implemented. It synthesizes classroom process assessments, formative evaluations of practical training, and clinical internship supervision data to dynamically monitor nursing students' empathy development. Evaluation outcomes inform curriculum refinement, updates to simulation scenarios, and enhancements to clinical supervision—establishing a sustainable 'cultivation–evaluation–optimization' closed-loop talent development framework that continuously strengthens long-term professional humanistic literacy [18].

7. Conclusion

Based on survey results from 308 vocational undergraduate nursing students, this study found that the current level of empathy among nursing students is generally above average; however, their ability to see things from others' perspectives remains relatively weak, and there is insufficient continuity between campus-based training and the clinical internship phase. This suggests that the integration of values education into the curriculum has not yet formed a closed-loop system for holistic education throughout the entire process. The holistic curriculum-based values education pathway for fostering empathy, developed based on these findings, offers new practical insights for vocational undergraduate nursing education. As this study was a single-center cross-sectional survey, future multi-center longitudinal studies are needed to further validate the effectiveness of this educational pathway.

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