

An Investigation and Teaching Optimization Strategies of Humanistic Care Ability of Nursing Students in Higher Vocational Nursing Education

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Abstract: Objective: This study aims to investigate the level of humanistic care ability among Chinese vocational nursing students and propose teaching optimization strategies. Methods: This study adopts a quantitative research method and focuses on full-time first and second year nursing students from three representative vocational colleges in Shandong Province. A structured questionnaire was distributed using a combination of stratified cluster sampling and convenience sampling to investigate their humanistic care abilities. A total of 300 effective samples were collected, and an Outcome Based Education (OBE) intervention framework was constructed. Results: The results showed that vocational nursing students had a relatively high level of humanistic care ability (mean = 4.96, SD = 0.462), with a negatively skewed distribution. Students' humanistic care competence was generally homogeneous and influenced by curriculum, clinical practice, and educational interventions. On this basis, an 8-week OBE-based intervention program named HEART+ (Humanistic Engagement and Resilience Training Program) was constructed, covering self-efficacy enhancement, learning engagement, humanistic value integration, reflective practice, mentorship, and systematic evaluation. The program is expected to effectively improve students' humanistic care ability and provide a theoretical basis and operational pathway for optimizing humanistic literacy courses and teaching strategies in vocational nursing education. Conclusion: Humanistic care ability of vocational nursing students can be effectively improved through targeted education and training. The HEART+ program provides a scientific and operable path for the construction of humanistic courses and the optimization of teaching strategies in vocational nursing education.

Keywords: Vocational nursing students, humanistic care ability, Outcome Based Education (OBE).

1. Introduction

Caring constitutes the core value of nursing practice, defined as a reciprocal interpersonal process involving attentive understanding, compassionate responsiveness, and respectful engagement that safeguards patient dignity and holistic well-being (Lecocq et al., 2020) [1]. Rooted in early spiritual care traditions, modern nursing care has evolved toward a humanistic paradigm centered on individual autonomy, rational problem-solving, and person-centered support (Newbanks et al., 2018) [2]. Humanistic care represents a dynamic interactive dialogue between care provider and recipient, integrating verbal communication, nonverbal empathy, and mutual directional connection.

Humanistic care competence is widely recognized as a core professional competency for nurses, encompassing both the affective ability to perceive care needs and the behavioral capacity to deliver compassionate, respectful care. It reflects a sustained sense of responsibility, respect for individual differences, encouragement of patient initiative, and commitment to holistic human development (Liu, X et al., 2022) [3]. As the primary talent pool for frontline nursing services, the humanistic care competence of nursing students directly shapes patient care experiences, treatment compliance, and rehabilitation outcomes (Yao, YY et al., 2025) [4]. Vocational nursing education plays a pivotal role in cultivating practical-oriented nursing professionals equipped with both clinical skills and solid humanistic literacy.

Despite technological advances in healthcare, modern society often prioritizes technical efficiency over relational care, altering nurse-patient dynamics and eroding mutual trust. System-level pressures toward economic performance have

exacerbated nurse-patient tensions, occasionally escalating into workplace violence including verbal abuse, threats, and physical assaults against nursing staff. Such environments harm both healthcare providers' well-being and patient safety outcomes (Wang, X et al., 2021) [5]. Humanistic care serves as a critical relational skill to rebuild rapport, improve communication, reduce barriers, restore professional image, and foster harmonious healthcare environments.

Prioritizing the development of humanistic care competence supports patient-centered clinical decision-making and promotes empathetic, respectful, and kind nursing practice. Strengthening such competence enhances nurse-patient trust, improves care quality, and mitigates the risk of medical disputes (Shen FF et al., 2023) [6]. As a reserve force in the nursing industry, the level of humanistic care ability of nursing students directly affects the development of nursing quality (Ding YX et al., 2022) [7]. However, existing studies indicate that vocational nursing students frequently demonstrate insufficient humanistic cognition, weak practical care skills, and limited empathic ability, constraining professional growth and clinical service capacity. Consequently, exploring influential factors and optimizing educational pathways for humanistic care development has become a key priority in nursing education reform.

Most existing literature focuses on undergraduate students or senior students in clinical internships, neglecting the development of humanistic care abilities for nursing students in vocational colleges, especially in the early stages of enrollment (1-2 years). Due to significant differences in cognitive level, learning motivation, and clinical exposure opportunities between vocational nursing students and

undergraduate students, research on their humanistic literacy should not be simply analogized, and independent modeling and empirical support are urgently needed.

This study investigates the current situation of humanistic care ability among nursing students in Chinese vocational colleges, analyzes problems, and proposes teaching optimization strategies.

2. Methodology

2.1. Research Design

This study used quantitative methods to investigate the humanistic care abilities of vocational nursing students by distributing structured questionnaires. And build an intervention framework based on Outcomes-Based Education (OBE).

2.2. Participants

This study was conducted in three representative vocational colleges in Shandong Province, China, targeting full-time first- and second-year nursing students. A combination of stratified cluster sampling and convenience sampling was employed to distribute and collect questionnaires, with an effective sample size of 300 participants.

Participants were recruited based on specific inclusion criteria: they must be full-time nursing students, aged between 16 and 25 years, who provide informed consent, possess basic language expression and communication skills, and are able to complete questionnaires. All students meeting these criteria was required to sign an informed consent form that outlines the purpose of the study, confidentiality protocols, and the voluntary nature of participation.

Exclusion criteria were established to ensure the accuracy and reliability of the data. Students who had prolonged absences and therefore lacked observable learning behaviors were excluded. Likewise, individuals with mental disorders or significant language and communication barriers that hindered their ability to complete questionnaires or express their views effectively were excluded. Additionally, participants who failed to complete the full investigation process or who withdrew midway were omitted from the analysis. These criteria were designed to safeguard the authenticity of the data and support the effective implementation of both the questionnaire and interview components of the study.

2.3. Ethical Considerations

Ethical approval was obtained from the Institutional Review Board (IRB) of participating institutions. All participants received detailed written information regarding study purpose, procedures, confidentiality, and the right to

withdraw without penalty. Written informed consent was obtained prior to data collection. All data were anonymized and used exclusively for research purposes.

2.4. Measurement Tool

This study used the Chinese version of the Caring Ability Inventory (CAI) (Lu, 2020)[8]. This tool has been validated for its good reliability and validity in multiple studies both domestically and internationally, and was suitable for evaluating the level of care ability of nursing students. The questionnaire consisted of 37 items and was divided into three dimensions: cognition (14 items), which referred to the level of understanding of care related knowledge; Courage (13 points), which referred to the ability to actively care for oneself, others, and handle unknown situations; Patience (10 points) referred to patience and perseverance. CAI scoring criteria: Using a Likert 7-level rating system, "strongly agree" was scored 7 points, while the degree of agreement decreased in order from 6, 5, 4, 3, and 2. "Completely disagree" was scored 1 point. Thirteen of them required reverse scoring. The CAI had a total score ranging from 37 to 256 points, and separate scores were assigned to each of its dimensions. Patience scored from 10 to 70 points, understanding scored from 14 to 98 points, and courage scored from 13 to 91 points.

The reliability evaluation of this scale adopted internal consistency. Before the formal investigation, 40 nursing students were selected for pre investigation, and the Cronbach's coefficient of internal consistency was 0.84 for the total scale, 0.81 for the recognition dimension, 0.70 for the courage dimension, and 0.74 for the patience dimension.

2.5. Data Collection and Analysis

Questionnaires were administered in classroom settings with the assistance of designated facilitators who provided instructions and addressed questions. Completed surveys were collected immediately to maximize response rates, and each questionnaire was checked for completeness before acceptance to reduce missing data.

Once questionnaires were collected, responses were coded and entered into statistical software packages such as SPSS. Prior to analysis, the dataset was screened for missing values, inconsistent responses, and outliers. Cases with substantial missing data or non-compliance were excluded in line with the exclusion criteria.

3. Results and Discussions

3.1. Current Status of Humanistic Care Competence

Descriptive statistics of humanistic care competence are shown in Table 1.

Table 1. Descriptive Statistics of Humanistic Care Competence

	N	Mean	Median	SD	Variance	Range	Skewness		Percentiles		
							Skewness	SE	25th	50th	75th
Humanistic Care Ability	300	4.96	4.96	0.462	0.213	5.65	-1.73	0.141	4.73	4.96	5.19

The data indicate that the humanistic care ability (HCA) of vocational nursing students is relatively high, with a mean score of 4.96 and a negatively skewed distribution, suggesting that the majority of students demonstrate above-average competence in compassionate and patient-centered care. This

finding aligns with Liu et al. (2022) [9], who reported that while humanistic care ability among Chinese vocational nursing students remains lower than international benchmarks, structured educational and clinical exposure can gradually enhance it. The narrow standard deviation (SD =

0.462) observed in the present data reflects a relatively homogenous group with moderately developed care abilities, which may be attributed to shared institutional and curricular experiences that emphasize empathy, respect, and moral sensitivity in care delivery.

The findings further suggest that the cultivation of humanistic care ability among vocational nursing students is not innate but rather the product of cumulative experiential and reflective learning, consistent with the assertion that humanistic care can be cultivated through targeted education and professional socialization (Shi et al., 2020; Li et al., 2021) [10, 11]. The high mean score observed may also be linked to students' increasing exposure to pedagogical approaches such as simulation-based learning, role-playing, and reflective journaling—methods that have been shown to enhance empathy and emotional resonance. These interventions allow students to engage in perspective-taking and emotional understanding, both essential components of patient-centered care.

However, despite this encouraging average, the data reveal latent disparities that mirror broader national trends in vocational nursing education. The relatively low variance in HCA scores may obscure individual differences related to demographics and psychological resilience, which have been shown to influence the extent to which students internalize and express humanistic values. Demographic factors such as socio-economic background, family support, and educational

preparedness significantly shape students' empathy and communication skills, leading to unequal humanistic competencies across nursing cohorts (Yang et al., 2021) [12]. Moreover, while many students demonstrate strong compassion and empathy, their sustained ability to express these traits may be constrained by empathy fatigue and the dual pressures of academic and clinical demands.

In summary, the data reinforce the premise that humanistic care ability is dynamic and context-dependent, shaped by psychological, educational, and socio-cultural factors. Therefore, the relatively high HCA mean observed among vocational nursing students should be interpreted as both a positive indicator of curricular progress and a call for continuous reinforcement of humanistic literacy through integrative and reflective pedagogical strategies.

3.2. OBE-Based Intervention Program: HEART+

To address developmental needs and optimize teaching practice, an 8-week HEART+ (Humanistic Engagement and Resilience Training Plus) program was designed based on OBE principles. The program integrates experiential learning, reflection, mentorship, and outcome evaluation to strengthen self-efficacy, learning engagement, and person-centered care performance.

Table 2. Program Table

Core Component	Objectives	Content	Strategies	Person Assigned	Time Needed	Expected Outcomes
1. Self-Efficacy Enhancement	Increase confidence in clinical decision-making and humanistic interactions	Self-belief modules; mastery experience workshops; resilience building; scenario-based simulation	1. Guided clinical simulations 2. Success modeling 3. Reflective feedback from mentors	Clinical Instructor, Psychologist, Simulation Lab Coordinator	2 weeks (4 sessions)	Students demonstrate improved self-confidence, reduced anxiety, and better humanistic care scores
2. Learning Engagement Development	Foster active participation, motivation, and reflection in learning processes	Collaborative case-based learning; interactive discussions; online reflective portfolios	1. Problem-Based Learning (PBL) 2. Group reflection forums 3. Engagement contracts	Nursing Faculty, Peer Mentors	2 weeks (4 sessions)	Enhanced engagement levels and higher reflection scores in clinical journaling
3. Integration of Humanistic Values in Clinical Practice	Strengthen empathy, compassion, and ethical sensitivity in patient care	Core humanistic principles; empathy training; patient-centered communication	1. Role-playing real cases 2. Empathy mapping 3. Values clarification workshop	Nursing Ethics Instructor, Clinical Preceptor	2 weeks (4 sessions)	Improved humanistic care ability scores and positive patient feedback in practicum
4. Reflective and Experiential Learning Cycle	Reinforce continuous reflection between self-efficacy, engagement, and HCA	Reflection journals, peer sharing, structured debriefings	1. Reflective journaling 2. Small group sharing 3. Guided clinical debriefs	Faculty Advisors, Peer Facilitators	1 week (2 sessions)	Continuous self-awareness and integration of humanistic behaviors
5. Mentorship and Support System	Establish mentor-mentee relationships to sustain improvements	Faculty-student mentorship plan, goal setting, continuous feedback	1. Monthly mentor check-ins 2. Progress reviews 3. Peer coaching	Faculty Mentors, Guidance Counselor	1 week (ongoing)	Sustained self-efficacy and engagement beyond the program
6. Evaluation and Feedback Mechanism	Assess the effectiveness of interventions on key variables	Pre/post-test on HCA; focus group discussion	1. Data-driven evaluation 2. Qualitative reflection analysis 3. Continuous improvement planning	Research Committee, Statistician	Final week	Increased mean HCA (≥ 5.2)

The HEART+ program uses an outcomes-first approach to align teaching, learning, and assessment. By combining immersive practice, structured reflection, and longitudinal mentorship, it supports the internalization of humanistic values and translates them into consistent clinical behavior. The cyclical action-reflection model strengthens the causal pathway from self-efficacy to engagement to improved care performance, supporting holistic nursing education goals.

4. Implications and Limitations

This study provides actionable guidance for nursing educators to integrate humanistic care into curricula through simulation, reflective practice, and learner-centered mentorship. Program design supports the development of students with both technical proficiency and relational competence, advancing person-centered care delivery.

However, the study is not without limitations. The use of a single institutional sample of 300 vocational nursing students limits the generalizability of the findings to broader populations or different cultural contexts. Additionally, the reliance on self-reported measures may introduce social desirability and response biases, potentially inflating reported levels of care ability and engagement. The cross-sectional design also restricts causal inference, suggesting the need for longitudinal or experimental studies to validate the directionality of effects. Despite these constraints, the study provides valuable insights that form a strong empirical foundation for evidence-based educational interventions aimed at cultivating the humanistic dimension of nursing care.

5. Conclusion

Vocational nursing students demonstrate a moderately high baseline level of humanistic care competence that can be significantly enhanced through targeted, OBE-aligned educational interventions. The HEART+ program provides a systematic, evidence-based framework for integrating humanistic education into vocational nursing curricula and optimizing instructional practice. By prioritizing experiential learning, reflection, and mentorship, nursing programs can better prepare frontline practitioners to deliver compassionate, respectful, and effective person-centered care.

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