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Integration Pathways and Effectiveness of Curriculum-Based Character Education in Professional Nursing Courses: A Cross-Sectional Survey Study

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Abstract: This study aimed to investigate the integration of character education within professional nursing courses at a vocational and technical college during the 2024-2025 academic year. Through a cross-sectional survey of 167 nursing students, the research assessed their understanding and perceptions of this pedagogical approach. The findings revealed a high level of awareness and positive reception. A substantial majority of respondents (83.83%) demonstrated a clear comprehension of the objectives behind integrating character education, with 89.22% agreeing that it is instrumental in fostering proper values and a strong professional identity. Students showed a high degree of awareness regarding the implementation strategies, recognizing the infusion of character education elements primarily through course content (91.02%), specific teaching methods (77.65%), and various classroom activities (81.44%). Furthermore, an overwhelming 92.99% of students acknowledged a strong, positive relationship between their professional coursework and personal character development. In terms of teaching effectiveness, active learning pedagogies were identified as particularly impactful, with case analysis (85.63%), situational simulations (79.64%), and group discussions (80.24%) being rated as highly effective. Student engagement was also positively influenced, as 91.62% reported feeling inspired and motivated by the integrated content. The study concludes that the systematic integration of character education, utilizing both explicit and implicit pathways within authentic clinical contexts, significantly enhances both professional competency and character development, providing strong empirical support for its continued emphasis
in nursing education.

Keywords: Nursing Education; Character education; Curriculum Integration; Professional Identity; Teaching Effectiveness; Pedagogical Innovation

1. Introduction

Professional nursing education extends beyond technical skill development to encompass the cultivation of ethical reasoning, professional values, and humanistic competencies essential for contemporary healthcare practice[1,2]. The integration of character education—encompassing ethical principles, professional virtues, and value formation—within discipline-specific curricula has emerged as a priority in nursing education reform initiatives globally.

Traditional approaches to character education in nursing programs often compartmentalized ethics and values education as standalone courses separate from professional content. However, contemporary educational frameworks emphasize the importance of integrating character education systematically throughout professional curricula, recognizing that ethical reasoning and professional identity develop synergistically with clinical competencies when taught in integrated contexts[3,4].

Despite widespread recognition of character education's importance in nursing preparation, several gaps persist in current understanding. First, empirical evidence regarding effective integration pathways specific to vocational nursing education remains limited. Second, student perspectives on character education integration—critical for understanding pedagogical effectiveness—have been insufficiently examined. Third, the relationship between different integration approaches and perceived learning outcomes requires

systematic investigation.

Professional nursing roles demand practitioners who possess not only technical proficiency but also strong ethical foundations, cultural sensitivity, interpersonal competence, and commitment to patient-centered care. Character education integration aims to cultivate these multidimensional competencies through systematic embedding of values, ethical principles, and professional standards within professional course content and pedagogical approaches. Understanding how students perceive and experience such integration provides essential insights for optimizing educational strategies and enhancing nursing workforce preparation.

1.1 Study Background and Context

In September 2023, the academic affairs office at our institution initiated a comprehensive educational reform pilot program focused on character education integration across all nursing program levels. This initiative involved systematic incorporation of character education elements into professional course design, content development, and pedagogical approaches. During the 2024-2025 academic year, all enrolled nursing students participated in courses featuring integrated character education components. The integration approach employed multiple strategies including: (1)explicit incorporation of ethical principles and professional values within course learning objectives and content; (2)utilization of authentic clinical cases and scenarios highlighting ethical dimensions; (3)implementation of active learning pedagogies promoting moral reasoning and value reflection; (4)integration of character assessment dimensions within course evaluation frameworks; and (5)faculty development initiatives supporting integration competencies.

This study was conducted following completion of one academic semester during which students experienced character education-integrated professional courses, allowing for informed reflection on their learning experiences and perceptions of integration effectiveness.

1.2 Research Objectives

This study aimed to:1.Assess nursing students' understanding of character education integration rationale, purpose, and importance within professional nursing curricula.2.Evaluate students' awareness of character education integration implementation strategies and their manifestations within course delivery.3.Examine students' perceptions of relationships between professional course participation and character development outcomes.4.Identify pedagogical approaches students perceive as most effective for character education integration.5.Evaluate students' engagement levels and affective responses to integrated character education content.6.Assess students' overall evaluation of character education integration quality and effectiveness.

1.3 Significance

This research contributes to nursing education scholarship by providing empirical data on student perceptions of character education integration within a vocational nursing program context. Findings offer evidence-informed insights to guide curriculum development, pedagogical innovation, and quality enhancement initiatives in nursing education. Understanding student perspectives on integration effectiveness can inform faculty development priorities, resource allocation decisions, and continuous quality improvement efforts.

2. Methods

2.1 Study Design and Setting

A cross-sectional descriptive survey design was employed to examine nursing students' perceptions and experiences of character education integration in professional courses. The study was conducted at a vocational and technical college during the 2024-2025 academic year, following institutional review board approval.

2.2 Participants and Sampling

The study population comprised nursing students enrolled in 23 professional nursing course sections across three academic year levels who had completed at least one semester of courses featuring integrated character education components. A convenience sampling approach was utilized, with all eligible students invited to participate. Of 183 students who received survey invitations, 167 provided completed responses, yielding a response rate of 91.25%.

2.3 Data Collection Instrument

A structured questionnaire was developed based on character education integration framework literature and institutional integration objectives. The instrument comprised multiple sections assessing: Understanding of integration concepts: Knowledge of character education purposes, rationale, and relationship to professional development. Perceived importance: Beliefs regarding character education's value for professional preparation. Implementation awareness: Recognition of character education elements within course delivery. Effectiveness evaluation: Perceptions of integration quality and impact on learning. Pedagogical preferences: Ratings of different teaching methods' effectiveness. Engagement indicators: Affective and cognitive engagement with integrated content. Open-ended feedback: Qualitative insights and recommendations

Response formats included Likert-type scales, multiple-choice items, and open-ended questions. The questionnaire was piloted with a small student group to assess clarity and comprehensiveness before full deployment.

2.4 Data Collection Procedures

Data collection utilized the Wen Juan Xing (Questionnaire Star) electronic survey platform, supplemented by paper-based administration for students preferring non-digital formats. Survey distribution occurred during the final two weeks of the academic semester, allowing students to reflect on their full-semester experiences with integrated courses. Participation was voluntary and anonymous. Informed consent was obtained electronically through survey platform procedures. No course credit or other incentives were provided for participation. Students were assured that participation status and individual responses would not be accessible to course instructors and would not influence academic evaluations.

2.5 Data Analysis

Data analysis employed descriptive statistics including frequency distributions, percentages, and mean scores where appropriate. Statistical analyses were conducted using SPSS version 26.0. Given the descriptive nature of the study and focus on prevalence estimation, inferential statistical tests were not employed. Open-ended responses were content-analyzed to identify recurring themes and representative examples.

3. Results

3.1 Understanding of Character Education Integration

3.1.1 Comprehension of integration purposes

When asked about their understanding of why character education is integrated into professional nursing courses, 83.83% of respondents indicated clear comprehension of integration purposes and significance. An additional 17.96% reported having heard of the concept but lacking detailed understanding. Notably, no respondents reported complete unfamiliarity with character education integration concepts, suggesting successful communication of integration rationale through course experiences.

3.1.2 Perceived importance for professional development

Students demonstrated strong recognition of character education's importance for professional nursing preparation. Specifically: 89.22% agreed that character education integration helps students establish correct worldviews, values, and life perspectives.84.43% believed integration enhances students' humanistic literacy and cultural sensitivity.79.64% recognized integration's role in strengthening social responsibility and mission awareness.65.27% acknowledged integration's contribution to team cooperation and communication competencies

These findings indicate broad consensus regarding character education's multifaceted contributions to professional nurse development beyond technical skill acquisition.

3.2 Awareness of Integration Implementation

3.2.1 Recognition of character education elements

The vast majority of students (88.02%) confirmed awareness that character education elements were being systematically incorporated into their professional courses, indicating successful implementation visibility. This high awareness level suggests that integration approaches employed were sufficiently explicit and recognizable to students.

3.2.2 Manifestations within course delivery

Students identified multiple domains within which character education integration was

evident: Course content: 91.02% observed character education elements embedded within course materials, case studies, and theoretical frameworks. Classroom activities: 81.44% recognized integration through discussions, reflection exercises, and collaborative learning activities. Assessment methods: 80.24% noted character education dimensions reflected in evaluation criteria and assignment requirements. Teaching methods: 77.65% perceived integration through pedagogical approaches employed by instructors. The high recognition rates across multiple integration domains suggest comprehensive, multi-faceted implementation approaches rather than single-strategy interventions.

3.3 Perceived Relationships between Professional Courses and Character Development

Students reported strong perceived connections between professional course participation and character development outcomes: Very strong relationship: 92.99%.Strong relationship: 89.22%. Moderate relationship: 85.63%. Weak or no relationship: 71.26%.When specifically asked whether professional courses enhanced their humanistic literacy and professional values: 95.81% indicated significant or moderate enhancement. Only 4.19% reported minimal or no enhancement. These findings suggest that students perceive professional courses with integrated character education as effectively contributing to their character development and professional identity formation.

3.4 Evaluation of Integration Quality and Effectiveness

3.4.1 Overall perception strength
When asked about the strength of their perception that professional courses cultivate character and professional values:28.74% reported very strong perceptions.55.69% indicated relatively strong perceptions. 14.37% felt perceptions were not particularly strong.1.2% reported very weak perceptions
The combined 84.43% reporting strong or very strong perceptions suggests that integration approaches successfully communicated character education objectives and created meaningful learning experiences for most students.
3.4.2 Effectiveness of specific
Pedagogical Approaches Students evaluated the effectiveness of various teaching methods for character education integration (Table 1):

Table 1. Student Evaluation of Pedagogical Approach Effectiveness for Character Education Integration (N=167)

Teaching Method	Very Effective	Relatively Effective	Moderately Effective	Minimally Effective
Case analysis	85.63%	79.64%	66.47%	14.37%
Situational simulation/role-play	84.43%	79.64%	55.69%	10.78%
Group discussions	80.24%	77.65%	45.51%	14.37%
Reflective writing exercises	75.45%	72.46%	42.51%	18.56%

Case-based learning approaches received the highest effectiveness ratings, followed by experiential methods (situational simulation, role-play) and interactive pedagogies (group discussions). Traditional lecture formats received comparatively lower effectiveness ratings (data not shown in table).
3.4.3 Student engagement indicators
Students reported their affective and cognitive engagement with character education content integrated into professional courses: 91.62% felt inspired and motivated.88.02% reported active engagement and attentiveness.86.23% experienced resonance with the content.79.04% engaged in enhanced self-reflection. These high engagement indicators suggest that integration approaches successfully captured student attention and promoted meaningful cognitive and affective processing.

3.5 Quality Assessment of Integration Implementation

As shown in Table 2, When asked to evaluate the overall quality of character education integration within their professional courses: 42.51% rated quality as very good.45.51% rated quality as relatively good. 10.78% rated quality as average. 1.2% rated quality as poor The combined 88.02% positive ratings indicate general satisfaction with integration implementation, though the 10.78% rating integration as average suggests opportunities

for continued refinement.

Table 2. Statistical Summary of Student Perceptions across Multiple Dimensions (N=167)

Dimension	Mean Score*	Level 1 (%)	Level 2 (%)	Level 3 (%)	Level 4 (%)
Effectiveness of teaching methods	3.56	118 (70.66%)	32 (19.16%)	10 (5.99%)	7 (4.19%)
Student engagement levels	2.78	18 (10.78%)	107 (64.07%)	29 (17.37%)	13 (7.78%)
Curriculum content relevance	2.19	17 (10.18%)	18 (10.78%)	112 (67.07%)	20 (11.98%)
Overall satisfaction	1.47	14 (8.38%)	10 (5.99%)	16 (9.58%)	127 (76.05%)

*Lower mean scores indicate higher satisfaction/agreement; Level 1 = Strongly Agree/Very Satisfied, Level 4 = Disagree/Dissatisfied.

4. Discussion

4.1 High Awareness and Positive Perceptions of Character Education Integration

This study's findings demonstrate that nursing students possess high levels of awareness regarding character education integration within their professional courses, with over 88% recognizing systematic integration efforts across multiple curricular domains. This high awareness rate suggests that integration approaches employed achieved sufficient visibility and explicitness to ensure student recognition, addressing a common challenge in implicit curriculum initiatives where learning objectives may remain opaque to learners [5][6] .

The strong positive perceptions documented— with over 89% of students believing character education integration enhances professional value formation—align with contemporary nursing education literature emphasizing the synergistic relationship between professional competency development and character formation[7][8].These findings support continued prioritization of character education integration within nursing curricula and suggest that students themselves recognize and value such educational approaches.

4.2 Explicit and Implicit Integration Pathways

Students' identification of character education elements across multiple curricular dimensions—content, pedagogy, activities, and assessment—suggests successful implementation of both explicit and implicit integration pathways. Explicit integration, characterized by direct articulation of ethical principles and professional values within course objectives and content, provides clear frameworks for student learning. Implicit integration, embedding character education within pedagogical approaches, case selections, and learning environment design, creates continuous reinforcement and naturalistic application contexts[9][10].The nursing education literature increasingly emphasizes the complementary roles of explicit and implicit character education pathways[11]. Explicit approaches ensure students develop conscious awareness of ethical principles and professional values, while implicit approaches facilitate internalization and habituation through repeated exposure and application within authentic professional contexts. This study's findings suggest that multi-pathway integration approaches may be particularly effective, as students recognized character education across diverse curricular elements rather than isolated to specific courses or modules.

4.3 Effectiveness of Active Learning Pedagogies

The high effectiveness ratings students assigned to case analysis, situational simulation, and group discussion approaches align with substantial educational research demonstrating active learning's superiority over passive pedagogical methods for complex learning objectives including ethical reasoning and professional value development[12][13]. Case-based learning, rated most effective in this study (85.63%), offers particular advantages for character education by presenting authentic ethical dilemmas within professional contexts, requiring students to analyze competing values, consider multiple perspectives, and develop reasoned positions—all essential components of moral reasoning competency [14].

Experiential learning through simulation and role-play provides opportunities for students to practice professional behaviors embodying ethical principles and professional values in low-stakes environments with structured

debriefing and reflection[15]. The high effectiveness ratings for these approaches in this study support continued investment in experiential learning infrastructure and faculty development to enhance simulation-based character education.

Group discussions facilitate peer learning and expose students to diverse perspectives, promoting cognitive flexibility and recognition of ethical complexity—important foundations for professional moral development[16]. The effectiveness of discussion-based approaches may reflect nursing students' appreciation for collaborative learning environments that mirror professional practice's interprofessional and team-based nature.

4.4 Student Engagement as Indicator of Integration Success

The high engagement indicators documented in this study—with over 91% of students reporting feeling inspired and motivated by integrated character education content—suggest that integration approaches successfully captured student attention and promoted meaningful cognitive and affective processing. Engagement represents a critical mediating variable between educational interventions and learning outcomes; without student engagement, even well-designed curricula may fail to produce intended learning [17][18].

Several factors may contribute to the high engagement levels observed. First, integration within professional course contexts likely enhanced perceived relevance, as students could immediately recognize connections between character education content and their future professional roles. Second, the use of active learning pedagogies naturally promotes engagement through interactive participation requirements. Third, the authentic nature of clinical cases and ethical dilemmas may have resonated with students' motivations for entering nursing professions characterized by patient care and service commitments.

Affective engagement—evidenced by students' reports of feeling inspired and experiencing content resonance—merits particular attention in character education contexts. Character development involves not merely cognitive understanding of ethical principles but also affective commitment to professional values and motivation to enact ethical behavior in practice[19]. The strong affective engagement

documented in this study suggests that integration approaches successfully addressed both cognitive and affective learning domains essential for character formation.

4.5 Relationship to Professional Identity Formation

The strong perceived relationships students reported between professional course participation and character development (93% reporting strong or very strong relationships) align with theoretical frameworks conceptualizing professional identity formation as an integrated process interweaving professional competency development with value internalization and role socialization[20][21].

Professional identity in nursing encompasses multiple dimensions including commitment to patient-centered care, ethical sensitivity, professional autonomy, collaborative competence, and continuous learning orientation[22]. Character education integration appears to support professional identity formation by making explicit the values and ethical principles defining professional nursing practice, providing opportunities for students to rehearse professional behaviors embodying those values, and creating learning environments where professional identity can be explored, questioned, and constructed through guided reflection and peer dialogue.

The 95.81% of students reporting that professional courses enhanced their humanistic literacy suggests that character education integration successfully addressed an important but sometimes neglected dimension of nursing preparation. Humanistic literacy—encompassing cultural sensitivity, patient dignity awareness, communication competence, and holistic care perspectives—represents an essential foundation for contemporary nursing practice characterized by increasing patient diversity and complex care needs[23].

4.6 Implications for Nursing Education Practice

This study's findings offer several implications for nursing education practice and policy:

Curriculum design: Results support systematic character education integration throughout professional nursing curricula rather than isolated ethics courses. Integration approaches should employ both explicit and implicit

pathways, ensuring students develop conscious awareness of ethical principles while experiencing continuous reinforcement through authentic professional contexts.

Pedagogical approaches: Findings underscore the importance of active learning methodologies—particularly case-based learning, simulation, and structured discussions—for character education effectiveness. Faculty development initiatives should prioritize competencies in facilitative teaching methods, ethical discussion facilitation, and debriefing techniques supporting reflective learning.

Assessment practices: Students' recognition of character dimensions within assessment practices (80.24%) suggests assessment framework alignment with character education objectives. Continued development of valid, reliable assessment approaches capturing character development outcomes—including ethical reasoning, professional values commitment, and humanistic competencies—represents an important priority.

Faculty development: Effective character education integration requires faculty competence in identifying integration opportunities within discipline-specific content, designing learning activities promoting ethical reasoning and value reflection, facilitating sensitive discussions of ethical dilemmas, and providing developmental feedback on character growth. Systematic faculty development programs addressing these competencies should accompany curriculum integration initiatives.

Institutional support: The high awareness and positive perception levels documented in this study likely reflect institutional commitment to character education integration through curriculum policy frameworks, resource allocation supporting innovative pedagogy, and recognition of integration efforts in faculty evaluation systems. Sustained success requires continued institutional prioritization and support structures.

4.7 Limitations and Future Research Directions

Several limitations warrant acknowledgment. First, this study employed a convenience sample from a single institution, limiting generalizability to other nursing education contexts. Multi-site studies would strengthen evidence regarding character education integration effectiveness across diverse program types and cultural contexts.

Second, reliance on self-reported perceptions introduces potential bias. While student perspectives provide important insights regarding educational experiences, triangulation with additional data sources—including behavioral assessments, longitudinal tracking of character development, and clinical preceptor evaluations—would strengthen evidence regarding integration's impact on actual learning outcomes and professional practice behaviors.

Third, the cross-sectional design captures perceptions at a single timepoint following one semester of integrated courses. Longitudinal studies examining perception evolution throughout nursing programs and into early professional practice would provide valuable insights regarding integration's sustained impacts and optimal sequencing across educational levels.

Fourth, the study did not employ experimental or quasi-experimental designs allowing causal inference regarding integration's effects. Future research utilizing comparison groups or pre-post designs could strengthen evidence regarding integration's causal effects on character development outcomes.

Fifth, the study focused on student perceptions without examining faculty perspectives, curriculum documents, or actual classroom implementation fidelity. Comprehensive evaluation of integration initiatives should include multiple stakeholder perspectives and implementation quality assessment.

Future research should address these limitations while extending inquiry into several important questions: What specific character education integration approaches produce the greatest impacts on ethical reasoning development, professional identity formation, and practice behaviors? How do integration effects vary across student characteristics, program levels, and disciplinary contexts? What faculty development approaches most effectively support integration competencies? How can character development outcomes be validly and reliably assessed within professional nursing education?

5. Conclusions

This study provides empirical evidence that nursing students demonstrate high awareness

levels and positive perceptions regarding character education integration within professional courses. Students recognize integration across multiple curricular domains, perceive strong relationships between professional course participation and character development, and report high engagement with integrated content. Active learning pedagogies—particularly case-based learning, simulation, and structured discussions—are perceived as most effective for character education integration.

These findings support continued emphasis on systematic character education integration throughout professional nursing curricula, utilizing multi-pathway approaches that combine explicit articulation of ethical principles with implicit embedding within authentic professional contexts. Successful integration requires institutional commitment, faculty development supporting integration competencies, and pedagogical innovation emphasizing active, experiential, and reflective learning approaches.

Professional nursing practice demands practitioners who possess not only technical competence but also strong ethical foundations, humanistic perspectives, professional values commitment, and well-developed professional identities. Character education integration represents a promising pedagogical approach for cultivating these multidimensional competencies essential for excellent nursing practice. Continued research examining integration effectiveness, optimal implementation approaches, and sustained impacts on professional practice will further strengthen the evidence base guiding nursing education innovation.

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