

DEVELOPMENT OF AN INTEGRATED NURSING COMPETENCY FRAMEWORK: SYNTHESIZING VIETNAM'S NATIONAL STANDARDS, COMPETENCY MODELS, AND ASSESSMENT INSTRUMENTS

Do Thi Ha¹, Dang Tran Ngoc Thanh¹,
Lam Thi Thu Tam¹, Nguyen Thi Thanh Tinh¹

ABSTRACT

Background: A comprehensive framework of nursing competencies is essential for ensuring quality healthcare and guiding nursing education, professional development, and the creation of competency assessment tools. Numerous nursing competency frameworks have been introduced worldwide to guide education and professional development. Nevertheless, these frameworks often differ significantly in structure and implementation, creating challenges in standardization and cross-contextual application. In Vietnam, the Core Nursing Competency Standards issued in 2022 define five key domains; however, with rapid advancements in healthcare, information technology, and artificial intelligence, an integrative and adaptable competency framework is needed to enhance the evaluation and development of nursing professionals. **Purposes:** This study aims to develop an integrated nursing competency framework for Vietnam by synthesizing: (1) the National Nursing Competency Standards of Vietnam (2022), (2) internationally nursing competency models, and (3) validated nursing competency assessment instruments. **Methods:** The study employs a multi-phase approach: (1) content analysis of the Vietnamese competency framework (Decision No. 3474/QĐ-BYT, 2022); (2) a review of 16 competency models globally, leading to the selection of 6 representative models; and (3) a scoping review of 28 studies

involving 5 nursing competency assessment instruments. Domains across these three sources were mapped thematically and synthesized into a unified framework. **Findings:** The integrated nursing competency framework were identified consisting of 7 domains that are based on the synthesis of 6 valued competency models around the world, 5 validated competency assessment tools and the National Nursing Competency Standards of Vietnam. The 7 domains of the framework include (1) Legal and Ethical Practice, (2) Professional Clinical Care Competency, (3) Patient Safety and Dignity, (4) Communication, Health Education and Collaboration, (5) Leadership and Management, (6) Teaching, Research and Evidence-Based Practice, and (7) Professional Development. This structure reflects the convergence of national regulation, global expectations, and instrument-validated core competencies. **Conclusion:** This integrated framework offers a coherent foundation for nursing education, licensing, clinical training, and professional development in Vietnam. It enables standardized evaluation while ensuring cultural and regulatory alignment. Future research should focus on validating this integrated framework and developing standardized assessment tools.

Keywords: *Nursing, competency, integrated framework, professional standards*

I. INTRODUCTION

Nursing competency is an important aspect of professional practice, ensuring safe and effective patient care¹. Over the years, various frameworks have been developed to define and assess nursing competency. Prominent models shaping the understanding of nursing competencies such as Benner's

¹ Pham Ngoc Thach University of Medicine

Responsible person: Do Thi Ha

Email: doha@pnt.edu.vn

Date of receipt: 10/2/2025

Date of scientific judgment: 10/3/2025

Reviewed date: 17/3/2025

theory on progressive expertise², the International Council of Nurses (ICN) framework³, the competency structure of the Canadian Nurses Association⁴, National Council of State Boards of Nursing Clinical Judgment Model⁵. National regulatory boards have also contributed localized frameworks that reflect context-specific expectations. However, inconsistencies between these frameworks pose challenges in education, assessment and implementation. Furthermore, many competency assessment tools have been developed, but they differ significantly in structure, methodology and scope⁶.

In Vietnam, the Core competency nursing standards, issued in 2022 under Decision No. 3474/QĐ-BYT, defined five key competency areas, covering professional legal and ethics, clinical care, leadership, research, and professional growth⁷. However, in the context of international integration and rapid advancement of information technology and artificial intelligence, the urgent need for a comprehensive and integrated competency framework is great. This study seeks to integrate these three sources into one unified competency framework tailored for the Vietnamese context. This will be the basis for developing a valuable, up-to-date and practical competency framework for forming a competency assessment tools to bridge the existing gaps and applicable in Vietnam.

II. METHODS

The study employs a multi-phase approach, includes document analysis of the national nursing standards in Vietnam, review of competency models globally, scoping review of nursing competency assessment instruments, and domains across these three sources were mapped thematically and synthesized into an integrated and practical framework.

1. Document analysis of Vietnam's National Nursing Standards

The official National Nursing Competency Standard regulated in 2022 was analyzed. Each domain, standard, and criterion was categorized and thematically coded for comparison with international models and instruments.

2. Review of competency models

Sixteen international nursing competency models were reviewed. Models were selected from professional associations, academic literature, and global health bodies. Each model was evaluated for structure, thematic domains, and relevance to general nursing practice. Six were selected as foundational references for integration.

3. Review of assessment instruments

A scoping review was conducted across PubMed, Scopus, CINAHL, ProQuest, and Cochrane Library, with supplementary manual searches from Google Scholar. The review focused on tools developed or validated between 2013 and 2024, used to assess general nursing competencies. Twenty-three tools were selected.

Both Review of Competency Models and Assessment Instruments followed the PRISMA's Guideline and Processes⁸. Main steps include Identification (identify relevant studies from databases and other sources); Screening (Remove duplicates and screen titles and abstracts for relevance); Eligibility (assess full-text articles for eligibility based on inclusion and exclusion criteria); and Inclusion (include studies that meet all criteria for systematic review)⁸.

Inclusion criteria included studies and reports focusing on competency models in nursing, as well as validated instruments assessing nursing competencies. Thematic analysis was performed to identify key components and commonalities among frameworks and assessment tools.

The search terms were developed from two concepts: nursing competency framework and assessment instrument. The keywords of nursing, nurse; competent, capable; framework, model, instrument, tool, questionnaire were used to search for relevant documents. The model or framework relevant to nursing competency was unlimited time. However, search was limited date of publication from 2013. English language was applied. Data extraction focus on essential tool characteristics, including assessment methods, competency domains, number of items, and author information. Thematic analysis was performed to identify patterns across competency frameworks, and findings were analyzed narratively.

4. Synthesis and Integration

Competency domains from the three sources were mapped using a comparative matrix. Redundant domains were merged, and unique competencies retained. Thematic synthesis was applied to generate an integrated structure.

III. RESULTS

To develop an integrated framework that

is both contextually grounded and internationally relevant, this study analyzed and synthesized data from three distinct sources. Each source contributes a critical layer to the understanding of nursing competencies in Vietnam. First, the official Vietnamese national nursing standards (2022) were reviewed to establish a regulatory foundation. Second, international competency models were examined to incorporate global perspectives and theoretical constructs. Third, empirical data were drawn from validated nursing assessment tools to reflect how competencies are measured and applied in real-world settings. The following sections present the key findings from each of these analyses.

1. Analysis of National Competency Standards

The National Nursing Competency Standards of Vietnam (2022), promulgated by the Ministry of Health under Decision No. 3474/QĐ-BYT, includes five major domains, 19 standards, and 73 specific competency criteria⁶. These were scientifically analyzed and categorized into extensive competency themes to identify key functional areas of professional nursing practice in Vietnam.

Table 1: Structure and key focus areas of the National Nursing Competency Standards

Domain	Title	Key Focus
1.	Legal and professional ethics compliance	Focuses on ethical practice, adherence to law, and respect for professional regulations
2.	Professional nursing practice competency	Encompasses the application of clinical knowledge, decision-making, disease prevention, and nursing procedures
3.	Management and leadership Competency	Involves resource coordination, task delegation, risk management, and interdisciplinary collaboration
4.	Teaching, research and evidence-based practice	Covers the application of scientific knowledge, participation in research activities, and utilization of informatics
5.	Personal and professional development	Emphasizes lifelong learning, foreign language use, computer skills, and self-reflection for professional growth

Each domain contains numerous of standards and multiple sub-criteria, reflecting a hierarchical structure that connects conceptual values to practical applications.

Through thematic synthesis of all 73 criteria across the 19 standards, the following recurrent competency themes were identified:

Table 2: Thematic mapping of the National Standards and corresponding recurrent themes

No.	Themes	Corresponding Standards
1.	Legal and ethical compliance	1, 2
2.	Clinical reasoning and care process	3, 4, 6
3.	Health promotion and prevention	7, 11
4.	Patient safety and medication	5, 9
5.	Communication and collaboration	10
6.	Leadership and team coordination	12, 13
7.	Teaching and mentorship	16
8.	Research and evidence integration	14, 17
9.	Self-development and learning	15, 18, 19

This analytical analysis allows the Vietnamese Standards to be aligned with international models and practical tools by domain, facilitating integration into a broader framework.g recurrent themes

2. Review of Competency Models

A total of 16 nursing competency frameworks were initially identified through

a systematic review of the literature. After assessing relevance and applicability, 10 frameworks were excluded due to limited scope, lack of empirical validation, or focus on specific nursing subfields. The final selection consists of 6 competency models. (Table 3).

Table 3: Summary of selected nursing competency models

No.	Model	Key Focus
1.	Benner's Novice to Expert Model ²	Describes five levels of proficiency based on experience and skill acquisition
2.	Nursing Competency Framework by International Council of Nurses (ICN) ³	Focuses on global nursing standards and competencies
3.	Canadian Nursing Association Competency Model (CanNACM) ⁴	Emphasizes entry-level competencies required for safe practice
4.	National Council of State Boards of Nursing (NCSBN) Clinical Judgment Model ⁵	Highlights decision-making skills essential for clinical practice
5.	The Model of Competency Development among Nurses (MCDN) ⁶	Highlights six essential domains of nurses in Vietnam, including essential characteristics of nurses
6.	Frameworks from WHO and National Nursing Boards ⁹	Address region-specific competency requirements

3. Review of competency instruments

For the competency instruments, the systematic search identified 381 citations, removing 61 duplicates. The remaining 320 articles undergoing title screening, excluding 242 that used existing tools rather than developing new ones or assessing competencies of nursing students. Abstract/full-text screening excluded 44 more, as they assessed specific skills or targeted allied health professionals. Fourteen additional studies were excluded for focusing on particular nursing aspects or being review articles. A manual search in Google Scholar found three more relevant studies.

Ultimately, twenty-three articles were included.

However, analysis revealed that many of these tools shared overlapping domains. To ensure a more focused and effective integration process, five tools were ultimately selected based on their comprehensiveness and applicability. These selected tools were then compared and aligned with the selected models and the Vietnamese Basic Nursing Competency Standards issued in 2022, with the aim of developing an integrated and contextually appropriate competency framework for nursing practice in Vietnam (Table 4).

Table 4: Summary of selected competency assessment instruments for nurses

No.	Tool's Name	Assessment area
1.	Nurse Professional Competence Scale (NPC) ¹⁰	Measures professional nursing competence across multiple domains
2.	Holistic Nursing Competence Scale (HNCS) ¹¹	Assesses comprehensive and practical nursing competencies
3.	Clinical Simulation Competency Assessment Tool (ClinSimCAT) ¹²	Evaluates competencies in both clinical and simulation settings
4.	Advanced Practice Nursing Competency Assessment Instrument (APNCAI) ¹³	Focuses on competencies specific to advanced practice nursing
5.	Critical Care Nursing Competence Scale (ICCN-CS-1) ¹⁴	Measures competency levels in intensive and critical care nursing

These tools employ various methods, including self-report surveys, observational techniques, and multi-domain competency scoring, to provide a comprehensive evaluation of nursing competencies.

4. Integrated nursing competency framework

The integration of theoretical models, assessment tools, and the Vietnamese standard results in the following ten domains, including: Legal and Ethical Practice; Clinical Care Competency; Patient Safety and Medication; Communication and Collaboration; Health Education and Promotion; Leadership and Management; Evidence-Based Practice and Informatics; Professional Development; Emergency and

Critical Care; Mentorship and Teaching.

After reviewing and comparing the ten initially integrated domains with existing models, tools, and Vietnam's national standards, overlapping concepts and functional similarities were identified. This allows the research team to consolidate and refine the structure. As a result, a final version of the integrated framework was developed, consisting of seven core competency domains. These revised domains provide a more concise, coherent, and practical foundation for competency-based education and assessment in Vietnam. Each domain aligns with at least one national standard, several assessment tools, and one or more theoretical models.

Table 5: Mapping of integrated competency domains with national standards, models, and assessment tools

Integrated domain	Vietnam National Standard (2022)	Selected competency models	Selected assessment tools
Legal and ethical practice	Domain 1	ICN, MCDN, WHO	NPC, APNCAI
Professional nursing care competency	Standards 3, 4, 6	Benner, CanNACM, MCDN	ICCN-CS-1
Communication, health education and collaboration	Standard 10, 11	Benner, MCDN	HNCS, APNCAI,
Management and leadership	Domain 3	CanNACM, MCDN	APNCAI
Patient safety and dignity	Standards 5, 7, 9	ICN, MCDN	ICCN-CS-1, ClinSimCAT
Teaching, research, evidence-based practice	Standard 16, 17	WHO, MCDN	NPC, APNCAI, ICCN-CS-1
Professional development and essential attributes	Domain 5	MCDN	NPC

Based on the core competencies synthesized from the national standard, competency models, and assessment tools, a diagram was created to visually illustrate the structure and interrelation of the integrated nursing competency framework. The integrated framework comprises seven core competency domains, as shown in the figure below.

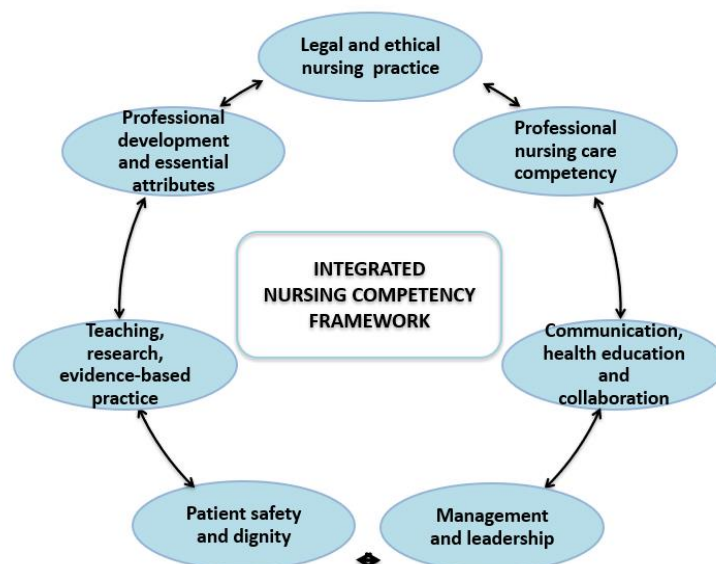


Figure 1. The Integrated Nursing Competency Framework

IV. DISCUSSION

The integrated nursing competency framework developed in this study reflects the convergence of three essential pillars of professional competence: theoretical foundations, practical assessment, and regulatory structure. Through the alignment of Vietnam's 2022 national competency standards with six theoretical models and five validated tools, the framework provides both local relevance and global compatibility.

Compared to previous competency frameworks developed in high-income countries such as the CanNACM⁴, this integrated model ensures contextual adaptability. While ICCN-CS-1¹⁴ highlights quality and safety in patient care, the Vietnamese standards place notable emphasis on legal adherence, ethical accountability, and integration of public health responsibilities, elements that are critical in a transitional healthcare system like Vietnam's as well as quality and safety in patient care.

Similarly, the WHO Nurse Educator Competency Framework emphasizes roles in teaching, communication, and curriculum development. The Vietnamese standard includes these competencies but further ties them to licensing and lifelong learning requirements, including informatics and foreign language proficiency, which are not commonly found in many Western frameworks. This illustrates a broader scope in Vietnam's competencies, particularly in domains of self-development and cross-sectoral policy alignment. When examining the five well-known assessment tools, it is evident that many prioritize domains such as clinical competence, leadership, or ethics. However, very few integrate all seven domains concurrently. The integrated framework proposed here helps address this gap by identifying themes across instruments and extending the framework to domains such as mentorship and emergency preparedness, which are often underrepresented.

Significantly, the Vietnamese framework's alignment with the Benner's Novice to Expert Model² supports the longitudinal development of nurses across career stages. This feature enables the proposed model to support the construction of Performance Level Descriptors (PLDs) and Objective Structured Clinical Examinations (OSCEs), allowing practical evaluation of competencies in real-world settings. The integrated model also enables educational institutions and policy-makers to build standardized nursing curricula, clinical rotation plans, and evaluation rubrics that reflect both local and international expectations. It can be used to design competency-based continuing education programs, faculty development workshops, and cross-border nursing mobility protocols. Furthermore, integrating a research domain and digital competencies reflects a future-oriented approach. These areas were less emphasized in older frameworks but are increasingly essential in digital health ecosystems and pandemic preparedness.

Furthermore, when compared with the MCDN proposed by Ha and Nuntaboot⁶, the integrated framework developed in this study demonstrates a high level of compatibility, especially in reflecting core personal attributes identified as crucial for nursing practice in the Vietnamese context. The MCDN emphasizes not only technical and professional competencies but also personal attributes essential for effective nursing practice in Vietnam. These include good physical health, patience, the ability to work under pressure, a strong sense of professional pride, and a deep love for the nursing profession, that are widely discussed in Vietnamese nursing literature and are particularly relevant to the cultural and clinical realities of nursing in Vietnam.

Important, these attributes are not explicitly included in the Vietnamese Basic Nursing Competency Standards⁷ issued in 2022. By incorporating these essential yet previously overlooked dimensions, the developed integrated framework offers a more newly comprehensive and contextually appropriate approach to nursing competencies. This enhancement not only bridges the gap between existing standards and actual practice requirements but also strengthens the cultural identity and values of the Vietnamese nursing workforce.

This integrated framework does not only reconcile technical competencies across models and tools, but also explicitly incorporates personal and cultural attributes that are highly valued yet underrepresented in the official Vietnamese standards. By doing so, it provides a more complete and culturally responsive representation of what it means to be a competent nurse in Vietnam today. This approach highlights the importance of resilience, intrinsic motivation, and professional pride, essential attributes in facing current healthcare challenges.

V. CONCLUSION

This study presents an integrated nursing competency framework synthesized from Vietnam's national standards, six theoretical models, and five competency assessment tools. The seven-domain structure provides a foundation for standardized, context-appropriate, and globally relevant nursing education, assessment, and practice in Vietnam. The proposed integrated framework not only bridges Vietnamese and international nursing standards but also advances the discourse on context-sensitive global competency harmonization. From the findings of this study, it is recommended that a competency-based assessment tool be

specifically developed for the Vietnamese nursing context. This tool should be structured according to the seven domains of the integrated framework presented here, ensuring both alignment with national standards and incorporation of internationally validated constructs. The tool could serve as a foundation for evaluating nursing graduation, conducting licensing exams, guiding continuing professional development, and supporting institutional accreditation processes.

REFERENCES

1. **World Health Organization.** *State of the world's nursing 2020: Investing in education, jobs and leadership.* Geneva: World Health Organization; 2020. Available from: <https://www.who.int/health-topics/nursing>.
2. **Benner P.** *From Novice to Expert: Excellence and Power in Clinical Nursing Practice.* Menlo Park, CA: Addison-Wesley; 1984.
3. **International Council of Nurses.** *ICN Framework of Competencies for the Generalist Nurse.* Geneva: ICN; 2022. Available from: <https://www.icn.ch>.
4. **Canadian Nurses Association.** *Entry-Level Competencies for the Practice of Registered Nurses.* Ottawa: CNA; 2019. Available from: <https://nurses.ab.ca/media/5ndpyfar/entry-level-competencies-for-the-practice-of-registered-nurses-mar-2019.pdf>.
5. **National Council of State Boards of Nursing (NCSBN).** *The NCSBN Clinical Judgment Measurement Model (NCJMM).* Chicago, IL: NCSBN; 2019. Available from: <https://www.ncsbn.org>.
6. **Thi Ha D, Nuntaboot K.** Formulation a model of competency development for nurses in the context of Vietnam: from existing to needed competency. *Vietnam Medical Journal.* 2023;525(1). doi:10.51298/vmj.v525i1.5057.
7. **Ministry of Health.** *Core competency standards of Vietnamese nurses at bachelor level.* Decision No. 3474/QĐ-BYT dated December 28, 2022. Hanoi: Ministry of Health; 2022.
8. **Page MJ, Moher D, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al.** PRISMA 2020 explanation and elaboration: updated guidance and examples for reporting systematic reviews. *BMJ.* 2021;372:n160. doi:10.1136/bmj.n160. Available from: <https://www.prisma-statement.org/>.
9. **World Health Organization.** *Nurse Educator Core Competencies.* 2nd ed. Geneva: WHO; 2021. Available from: <https://www.who.int/publications/i/item/9789240034662>.
10. **Gardulf A, Florin J, Carlsson M, Leksell J, Lepp M, Lindholm C, et al.** The Nurse Professional Competence (NPC) Scale: A tool that can be used in national and international assessments of nursing education programs. *Nordic Journal of Nursing Research.* 2019;39(3):137-42. doi:10.1177/2057158518824530.
11. **Aydin A, Hiçdurmaz D.** Holistic nursing competence scale: Turkish translation and psychometric testing. *International Nursing Review.* 2019;66(3):425-33. doi:10.1111/inr.12514.
12. **Beauvais AM, Phillips KE.** Incorporating the Future of Nursing Competencies Into a Clinical and Simulation Assessment Tool: Validating the Clinical Simulation Competency Assessment Tool. *Nursing Education Perspective.* 2020;41(5):280-4. doi:10.1097/01.NEP.0000000000000709.
13. **Sastre-Fullana P, Morales-Asencio JM, Sesé-Abad A, Bennasar-Veny M, Fernández-Domínguez JC, De Pedro-Gómez J.** Advanced Practice Nursing Competency Assessment Instrument (APNCAI): clinimetric validation. *BMJ Open.* 2017;7(2):e013659. Published 2017 Feb 23. doi:10.1136/bmjopen-2016-013659.
14. **Lakanmaa RL, Suominen T, Perttilä J, Ritmala-Castrén M, Vahlberg T, Leino-Kilpi H.** Basic competence in intensive and critical care nursing: development and psychometric testing of a competence scale. *Journal of clinical nursing.* 2014;23(5-6):799-810. doi:10.1111/jocn.12057.