Supplementary Table 1. Database-Specific Search Strategies and Search Yield

Panel A. International databases

Database	Search focus	Search strategy	Records identified
PubMed	History and concept of nursing diagnosis	("nursing diagnosis"[Title/Abstract] OR "NANDA"[Title/Abstract] OR "NANDA International"[Title/Abstract]) AND (history[Title/Abstract] OR concept[Title/Abstract] OR definition[Title/Abstract] OR taxonomy[Title/Abstract])	424
	Standardized nursing terminology and nursing process	("standardized nursing language"[Title/Abstract] OR "nursing terminology"[Title/Abstract] OR "NANDA"[Title/Abstract] OR "NIC"[Title/Abstract] OR "NOC"[Title/Abstract] OR "ICNP"[Title/Abstract]) AND ("nursing process"[Title/Abstract] OR "electronic health records"[Title/Abstract] OR documentation[Title/Abstract])	382
	Clinical reasoning and clinical judgment	("clinical reasoning"[Title/Abstract] OR "clinical judgment"[Title/Abstract] OR "diagnostic reasoning"[Title/Abstract]) AND (nursing[Title/Abstract] OR nurse[Title/Abstract] OR nurses[Title/Abstract])	1,981
	Diagnostic accuracy and clinical validity	("nursing diagnosis"[Title/Abstract] OR "NANDA"[Title/Abstract]) AND (accuracy[Title/Abstract] OR validity[Title/Abstract] OR "diagnostic accuracy"[Title/Abstract] OR "defining characteristics"[Title/Abstract] OR "related factors"[Title/Abstract])	495
	Patient safety and nursing education	("nursing diagnosis"[Title/Abstract] OR "nursing process"[Title/Abstract] OR "clinical reasoning"[Title/Abstract]) AND ("patient safety"[Title/Abstract] OR "diagnostic error"[Title/Abstract]	1,004

		OR simulation[Title/Abstract] OR debriefing[Title/Abstract] OR "clinical decision support system"[Title/Abstract] OR CDSS[Title/Abstract])	
Web of Science Core Collection	History and concept of nursing diagnosis	TS=(("nursing diagnosis" OR NANDA OR "NANDA International") AND (history OR concept OR definition OR taxonomy))	517
	Standardized nursing terminology and nursing process	TS=(("standardized nursing language" OR "nursing terminology" OR NANDA OR NIC OR NOC OR ICNP) AND ("nursing process" OR "electronic health records" OR documentation))	541
	Clinical reasoning and clinical judgment	TS=(("clinical reasoning" OR "clinical judgment" OR "diagnostic reasoning") AND (nursing OR nurse OR nurses))	2,230
	Diagnostic accuracy and clinical validity	TS=(("nursing diagnosis" OR NANDA) AND (accuracy OR validity OR "diagnostic accuracy" OR "defining characteristics" OR "related factors"))	512
	Patient safety and nursing education	TS=(("nursing diagnosis" OR "nursing process" OR "clinical reasoning") AND ("patient safety" OR "diagnostic error" OR simulation OR debriefing OR "clinical decision support system" OR CDSS))	1,252
CINAHL	History and concept of nursing diagnosis	(TI "nursing diagnosis" OR AB "nursing diagnosis" OR TI NANDA OR AB NANDA OR TI "NANDA International" OR AB "NANDA International") AND (TI history OR AB history OR TI concept OR AB concept OR TI definition OR AB definition OR TI taxonomy OR AB taxonomy)	375

Standardized nursing terminology and nursing process	(TI "standardized nursing language" OR AB "standardized nursing language" OR TI "nursing terminology" OR AB "nursing terminology" OR TI NANDA OR AB NANDA OR TI NIC OR AB NIC OR TI NOC OR AB NOC OR TI ICNP OR AB ICNP) AND (TI "nursing process" OR AB "nursing process" OR TI "electronic health records" OR AB "electronic health records" OR TI documentation OR AB documentation)	368
Clinical reasoning and clinical judgment	(TI "clinical reasoning" OR AB "clinical reasoning" OR TI "clinical judgment" OR AB "clinical judgment" OR TI "diagnostic reasoning" OR AB "diagnostic reasoning") AND (TI nursing OR AB nursing OR TI nurse OR AB nurse OR TI nurses OR AB nurses)	1,678
Diagnostic accuracy and clinical validity	(TI "nursing diagnosis" OR AB "nursing diagnosis" OR TI NANDA OR AB NANDA) AND (TI accuracy OR AB accuracy OR TI validity OR AB validity OR TI "diagnostic accuracy" OR AB "diagnostic accuracy" OR TI "defining characteristics" OR AB "defining characteristics" OR TI "related factors" OR AB "related factors")	401
Patient safety and nursing education	(TI "nursing diagnosis" OR AB "nursing diagnosis" OR TI "nursing process" OR AB "nursing process" OR TI "clinical reasoning" OR AB "clinical reasoning") AND (TI "patient safety" OR AB "patient safety" OR TI "diagnostic error" OR AB "diagnostic error" OR TI simulation OR AB simulation OR TI debriefing OR AB debriefing OR TI "clinical decision support system" OR AB "clinical decision support system" OR TI CDSS OR AB CDSS)	900

Panel B. Korean databases

Database	Search focus	Search terms and records identified	Subtotal

RISS	History and concept of nursing diagnosis	간호진단 역사 (24); 간호진단 개념 (37); 간호진단 NANDA (65)	126
	Standardized nursing terminology and nursing process	표준화 간호용어 간호기록 (6); 간호과정 표준화 (55); 간호진단 간호기록 (45)	106
	Clinical reasoning and clinical judgment	임상추론 간호 (106); 임상판단 간호 (108); 진단적 추론 간호 (0); 진단추론 간호 (6)	220
	Diagnostic accuracy and clinical validity	간호진단 정확성 (0); 간호진단 정확도 (0); 간호진단 타당도 (27); 간호진단 타당성 (6); 간호진단 관련요인 (56)	89
	Patient safety and nursing education	간호진단 환자안전 (16); 간호과정 환자안전 (70); 임상추론 환자안전 (6); 진단오류 간호 (0); 임상추론 시뮬레이션 (63); 간호진단 시뮬레이션 (2); 간호과정 임상의사결정지원 (6); 간호 의사결정지원 (46); 간호정보시스템 간호과정 (58)	267
KISS	History and concept of nursing diagnosis	간호진단 (408); 간호진단 NANDA (33)	441
	Nursing diagnosis and nursing process	간호진단 간호과정 (92)	92
	Standardized nursing terminology and nursing process	표준화 간호용어 (6); 간호기록 표준화 (13)	19

	Clinical reasoning and clinical judgment	임상추론 간호 (49); 임상판단 간호 (84)	133
	Education and information technology	임상추론 시뮬레이션 (20); 간호 의사결정지원 (9); 간호정보시스템 간호과정 (2)	31
DBpia	History and concept of nursing diagnosis	간호진단 (407); 간호진단 NANDA (33)	440
	Nursing diagnosis and nursing process	간호진단 간호과정 (57)	57
	Standardized nursing terminology and nursing process	표준화 간호용어 (10); 간호기록 표준화 (18)	28
	Clinical reasoning and clinical judgment	임상추론 간호 (87); 임상판단 간호 (107)	194
	Education and information technology	임상추론 시뮬레이션 (52); 간호 의사결정지원 (45); 간호정보시스템 간호과정 (45)	142

Supplementary Table 2. Characteristics of Full-Text Sources Included in the Narrative Review

No.	Author(s)	Year	Source title	Source type	Primary thematic area
1	Jedwab, R. M., et al.	2024	Applicability and benefits of Standardised Nursing Terminology in Australia: A scoping review.	Review	Theme 1. Historical formation and standardized nursing terminology
2	da Silva, I. R., et al.	2025	Applicability of electronic health records in the hospital Nursing Process: a scoping review.	Review	Theme 1. Historical formation and standardized nursing terminology
3	Thoroddsen, A.	2005	Applicability of the Nursing Interventions Classification to describe nursing.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
4	Lopes, M. V. O., et al.	2013	Application of a model based on fuzzy logic for evaluating nursing diagnostic accuracy of students.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
5	Hassanein, S., et al.	2025	Artificial intelligence in nursing: an integrative review of clinical and operational impacts.	Review	Theme 5. Transformation of nursing diagnosis education
6	Jelloul, H., et al.	2026	Artificial Intelligence-Enabled Educational Tools and Clinical Reasoning in Undergraduate Nursing Education: A Systematic Review.	Review	Theme 5. Transformation of nursing diagnosis education
7	Ozbolt, J. G. and V. K. Saba	2008	A brief history of nursing informatics in the United States of America.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing terminology
8	Florin, J., et al.	2021	A comparison between the ICNP and the ICF for expressing nursing content in the electronic health record.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
9	Hoffman, K. A., et al.	2009	A comparison of novice and expert nurses' cue collection during clinical decision-making: Verbal protocol analysis.	Qualitative study	Theme 4. Pathophysiological

					integration and patient safety-oriented reasoning
10	Kavanagh, J. M. and C. Szweda	2017	A Crisis in Competency: The Strategic and Ethical Imperative to Assessing New Graduate Nurses' Clinical Reasoning.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
11	Grobe, S. J., et al.	1991	A descriptive analysis of experienced nurses' clinical reasoning during a planning task.	Qualitative study	Theme 3. Diagnostic accuracy and clinical validity
12	von Krogh, G., et al.	2005	A framework for integrating NANDA, NIC, and NOC terminology in electronic patient records.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
13	O'Neill, E. S. and N. M. Dluhy	1997	A longitudinal framework for fostering critical thinking and diagnostic reasoning.	Conceptual/theoretical/ historical paper	Theme 3. Diagnostic accuracy and clinical validity
14	Hackl, W. O., et al.	2015	A Nursing Intelligence System to Support Secondary Use of Nursing Routine Data.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
15	Johnson, L., et al.	2018	A systematic literature review of accuracy in nursing care plans and using standardised nursing language.	Review	Theme 3. Diagnostic accuracy and clinical validity
16	Barken, T. L., et al.	2017	Advancing beyond the system: telemedicine nurses' clinical reasoning using a computerised decision support system for patients with COPD - an ethnographic study.	Qualitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
17	Gordon, D., et al.	2022	Advancing the assessment of clinical reasoning across the health professions: Definitional and methodologic recommendations.	Conceptual/theoretical/ historical paper	Theme 5. Transformation of nursing diagnosis education
18	Han, G. I., et al.	2026	Advantages and challenges for utilization of generative artificial intelligence in clinical nursing practice: an integrative review.	Review	Theme 5. Transformation of nursing diagnosis

					education
19	Bakken, S., et al.	2002	An evaluation of the usefulness of two terminology models for integrating nursing diagnosis concepts into SNOMED Clinical Terms.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
20	Jessee, M. A.	2021	An Update on Clinical Judgment in Nursing and Implications for Education, Practice, and Regulation.	Conceptual/theoretical/ historical paper	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
21	Adamson, K. A., et al.	2012	Assessing the Reliability, Validity, and Use of the Lasater Clinical Judgment Rubric: Three Approaches.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
22	Peres, H. H. C., et al.	2016	Assessment of diagnostic accuracy in nursing: paper versus decision support system.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
23	Li, M., et al.	2026	Automated Identification of Nursing Diagnoses and Interventions From Nursing Records Using a Retrieval-Augmented Large Language Model Approach: Quantitative Study.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
24	Betts, J., et al.	2026	Bringing the NCLEX into the next generation: Results from the first year of measuring clinical judgment.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
25	Dawson, T., et al.	2014	Can script concordance testing be used in nursing education to accurately assess clinical reasoning skills?	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
26	Abi Khalil, C., et al.	2025	Capabilities of computerized decision support systems supporting the nursing process in hospital settings: a scoping review.	Review	Theme 1. Historical formation and standardized nursing terminology
27	Pinheiro, C. E. D., et al.	2023	Causal validation of the risk for corneal injury in critically ill adults.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity

28	Buckingham, C. D. and A. Adams	2000	Classifying clinical decision making: interpreting nursing intuition, heuristics and medical diagnosis.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
29	Buckingham, C. D. and A. Adams	2000	Classifying clinical decision making: a unifying approach.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
30	Harbison, J.	2001	Clinical decision making in nursing: theoretical perspectives and their relevance to practice.	Conceptual/theoretical/ historical paper	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
31	Carteiro, D. M., et al.	2016	Clinical indicators of sexual dysfunction in pregnant women: integrative literature review.	Review	Theme 3. Diagnostic accuracy and clinical validity
32	Borges, B. E. C., et al.	2024	Clinical Indicators of the Nursing Diagnosis Caregiver Role Strain: A Systematic Review of Accuracy.	Review	Theme 3. Diagnostic accuracy and clinical validity
33	Cavalcante, Y. A., et al.	2022	Clinical indicators related to the nursing diagnosis "Post-trauma syndrome" in women victims of violence: A systematic review with meta-analysis.	Review	Theme 3. Diagnostic accuracy and clinical validity
34	Connor, J., et al.	2023	Clinical judgement in nursing - An evolutionary concept analysis.	Conceptual/theoretical/ historical paper	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
35	Hines, C. B. and F. G. Wood	2016	Clinical Judgment Scripts as a Strategy to Foster Clinical Judgments.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
36	Chai, L. S., et al.	2025	Clinical reasoning assessment methods in prelicensure undergraduate nursing education: A scoping review.	Review	Theme 5. Transformation of nursing diagnosis

					education
37	Campos de Carvalho, E., et al.	2017	Clinical reasoning in nursing: teaching strategies and assessment tools.	Review	Theme 5. Transformation of nursing diagnosis education
38	Forsberg, E., et al.	2014	Clinical reasoning in nursing, a think-aloud study using virtual patients – A base for an innovative assessment.	Qualitative study	Theme 5. Transformation of nursing diagnosis education
39	Huesmann, L., et al.	2023	Clinical reasoning: What do nurses, physicians, and students reason about.	Qualitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
40	Carlson-Catalano, J., et al.	1998	Clinical validation of ineffective breathing pattern, ineffective airway clearance, and impaired gas exchange.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
41	Park, S. A. and H. Y. Kim	2025	Development and effects of a scenario-based labor nursing simulation education program using an artificial intelligence tutor: a quasi-experimental study.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
42	Cho, I. and H. A. Park	2003	Development and evaluation of a terminology-based electronic nursing record system.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
43	de Góes, F. D. N., et al.	2012	Development and evaluation of an interactive virtual learning object on the diagnostic reasoning in nursing applied to preterm newborns.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
44	Liaw, S. Y., et al.	2018	Development and psychometric testing of a Clinical Reasoning Evaluation Simulation Tool (CREST) for assessing nursing students' abilities to recognize and respond to clinical deterioration.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
45	Mangueira, S. D. and M. V. O. Lopes	2016	Clinical validation of the nursing diagnosis of dysfunctional family processes related to alcoholism.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity

46	de Melo, N. P., et al.	2022	Clinical validation of the nursing diagnosis "Risk for delayed child development."	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
47	Nascimento, L. A. D., et al.	2023	Clinical validation of the nursing diagnostic proposition perioperative thirst.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
48	Padilha, J. M., et al.	2019	Clinical Virtual Simulation in Nursing Education: Randomized Controlled Trial.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
49	Boldt, C., et al.	2010	Combined application of the International Classification of Functioning, Disability and Health and the NANDA-International Taxonomy II.	Conceptual/theoretical/ historical paper	Theme 2. Limitations of diagnosis label-centered approaches
50	Oliveira Silva, G., et al.	2026	Comparative effects of pedagogical strategies for teaching the nursing process: Systematic review and network meta-analysis.	Review	Theme 5. Transformation of nursing diagnosis education
51	Innis, J., et al.	2024	Concept Mapping in Simulation Within Nursing Education: A Scoping Literature Review.	Review	Theme 5. Transformation of nursing diagnosis education
52	Peres, H. H. C., et al.	2010	Conceptualization of an electronic system for documentation of nursing diagnosis, outcomes, and intervention.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
53	Lavoie, P., et al.	2017	Contribution of a reflective debriefing to nursing students' clinical judgment in patient deterioration simulations: A mixed-methods study.	Mixed-methods study	Theme 5. Transformation of nursing diagnosis education
54	Greenwood, J.	2000	Critical thinking and nursing scripts: the case for the development of both.	Conceptual/theoretical/ historical paper	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
55	Carbogim, F. D., et al.	2016	Critical thinking: concept analysis from the perspective of Rodger's evolutionary method of concept analysis.	Conceptual/theoretical/ historical paper	Theme 5. Transformation of

					nursing diagnosis education
56	Bussard, M. E., et al.	2024	Current practices for assessing clinical judgment in nursing students and new graduates: A scoping review.	Review	Theme 5. Transformation of nursing diagnosis education
57	Lavoie, P., et al.	2019	Debriefing approaches for high-fidelity simulations and outcomes related to clinical judgment in baccalaureate nursing students.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
58	Ho, K. F., et al.	2021	Design and evaluation of a knowledge-based clinical decision support system for the psychiatric nursing process.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
59	Dai, L., et al.	2024	Design and implementation of an automatic nursing assessment system based on CDSS technology.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
60	Koivisto, J. M., et al.	2018	Design principles for simulation games for learning clinical reasoning: A design-based research approach.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
61	Betts, J., et al.	2024	Evaluating the Importance of Clinical Judgment in Entry-Level Nursing.	Quantitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
62	Redmond, C., et al.	2022	Development and validation of a script concordance test to assess biosciences clinical reasoning skills: A cross-sectional study of 1st year undergraduate nursing students.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
63	Namgung, H.-I., et al.	2023	Development of a Multiple-Patient Simulation and its Effectiveness in Clinical Judgment and Practice Readiness: A Randomized Controlled Trial.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
64	Almeida, M. A., et al.	2021	Development of a nursing diagnosis educational software program.	Methodological/development/ validation study	Theme 5. Transformation of

					nursing diagnosis education
65	Lavoie, P., et al.	2015	Development of a post-simulation debriefing intervention to prepare nurses and nursing students to care for deteriorating patients.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
66	Thys, J., et al.	2026	Development of an evidence-based foundation for a Belgian nursing reference set in SNOMED CT.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
67	Bae, J., et al.	2023	Development of the clinical reasoning competency scale for nurses.	Methodological/development/ validation study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
68	Kim, M., et al.	2023	Diagnostic accuracy of clinical outcome prediction using nursing data in intensive care patients: A systematic review.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
69	Diogo, R. C. D., et al.	2023	Diagnostic concordance among nursing clinical decision support system users: a pilot study.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
70	Lawson, T. N.	2018	Diagnostic Reasoning and Cognitive Biases of Nurse Practitioners.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
71	Huang, H. M.	2026	Effectiveness of ChatGPT using the START-Chat model in enhancing nursing students' pediatric knowledge, clinical reasoning, and self-directed learning: A quasi-experimental study.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
72	Chang, Y.-Y., et al.	2021	Effects of a simulation-based nursing process educational program: A mixed-methods study.	Mixed-methods study	Theme 5. Transformation of nursing diagnosis education

73	Oh, Y.-J., et al.	2021	Effects of a transformative learning theory based debriefing in simulation: A randomized trial.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
74	Lee, J., et al.	2016	Effects of high-fidelity patient simulation led clinical reasoning course: Focused on nursing core competencies, problem solving, and academic self-efficacy.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
75	Park, S., et al.	2024	Effects of Immersive Technology-Based Education for Undergraduate Nursing Students: Systematic Review and Meta-Analysis Using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) Approach.	Review	Theme 5. Transformation of nursing diagnosis education
76	Lee, C. Y., et al.	2025	Emerging trends in gamification for clinical reasoning education: a scoping review.	Review	Theme 5. Transformation of nursing diagnosis education
77	Jolly, S., et al.	2026	Enhancing Authentic Learning in Simulation-Based Education Through Electronic Medical Record Integration: A Practice-Based Commentary.	Commentary/practice paper	Theme 5. Transformation of nursing diagnosis education
78	Huang, H. M., et al.	2018	Establishing the competences of clinical reasoning for nursing students in Taiwan: From the nurse educators' perspectives.	Qualitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
79	Akyaz, D. Y., et al.	2026	Evaluating Artificial Intelligence-Generated Nursing Care Plans: A Scenario-Based Comparative Study of Accuracy, Completeness, Quality, and Readability.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
80	Roychowdhury, S., et al.	2025	Evaluating explanation performance for clinical decision support systems for non-imaging data: A systematic literature review.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
81	Bland, A. R., et al.	2009	Implementation and testing of the OPT Model as a teaching strategy in an undergraduate psychiatric nursing course.	Quantitative study	Theme 5. Transformation of nursing diagnosis

					education
82	Häyrinen, K., et al.	2010	Evaluation of electronic nursing documentation—nursing process model and standardized terminologies as keys to visible and transparent nursing.	Mixed-methods study	Theme 1. Historical formation and standardized nursing terminology
83	Diogo, R., et al.	2021	Evaluation of the Accuracy of Nursing Diagnoses Determined by Users of a Clinical Decision Support System.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
84	Marini, M. and E. H. B. Chaves	2011	Evaluation of the Accuracy of Nursing Diagnoses in a Brazilian Emergency Service.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
85	Park, H. A., et al.	2009	Evaluation of the Content Coverage of SNOMED-CT to Represent ICNP Version 1 Catalogues.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
86	Bartlett, R., et al.	2008	Evaluation of the Outcome-Present State Test Model as a way to teach clinical reasoning.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
87	Tastan, S., et al.	2014	Evidence for the existing American Nurses Association-recognized standardized nursing terminologies: a systematic review.	Review	Theme 1. Historical formation and standardized nursing terminology
88	Jans, C., et al.	2023	Examining the impact of virtual reality on clinical decision making - An integrative review.	Review	Theme 5. Transformation of nursing diagnosis education
89	Coram, C.	2016	Expert Role Modeling Effect on Novice Nursing Students' Clinical Judgment.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
90	van Baalen, S., et al.	2021	From clinical decision support to clinical reasoning support systems.	Conceptual/theoretical/ historical paper	Theme 4. Pathophysiological integration and patient safety-oriented reasoning

91	McDonald, M. S., et al.	2018	From linear care plan through concept map to Concepto-Plan: The creation of an innovative and holistic care plan.	Commentary/practice paper	Theme 5. Transformation of nursing diagnosis education
92	Havola, S., et al.	2020	Game Elements and Instruments for Assessing Nursing Students' Experiences in Learning Clinical Reasoning by Using Simulation Games: An Integrative Review.	Review	Theme 5. Transformation of nursing diagnosis education
93	Jiang, J., et al.	2026	GenAI-Supported Virtual Patients in Health Care Education: Systematic Review.	Review	Theme 5. Transformation of nursing diagnosis education
94	Díaz, M. J. F.	2026	Generative AI adaptive narratives to enhance nursing diagnostic reasoning: a classroom innovation.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
95	Ju, H., et al.	2025	Generative AI-Based Nursing Diagnosis and Documentation Recommendation Using Virtual Patient Electronic Nursing Record Data.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
96	Jansen, K., et al.	2016	Harmonising Nursing Terminologies Using a Conceptual Framework.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing terminology
97	Coenen, A., et al.	2012	ICNP Catalogues for supporting nursing content in electronic health records.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
98	Sung, S. M., et al.	2024	Identification of Predictors for Clinical Deterioration in Patients With COVID-19 via Electronic Nursing Records: Retrospective Observational Study.	Quantitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
99	Sanson, G., et al.	2017	Impact of nursing diagnoses on patient and organisational outcomes: a systematic literature review.	Review	Theme 3. Diagnostic accuracy and clinical validity

100	Bertocchi, L., et al.	2023	Impact of standardized nursing terminologies on patient and organizational outcomes: A systematic review and meta-analysis.	Review	Theme 1. Historical formation and standardized nursing terminology
101	Müller-Staub, M., et al.	2006	Nursing diagnoses, interventions and outcomes – application and impact on nursing practice: systematic review.	Review	Theme 3. Diagnostic accuracy and clinical validity
102	Frisch, N. C. and J. H. Kelley	2002	Nursing diagnosis and nursing theory: exploration of factors inhibiting and supporting simultaneous use.	Conceptual/theoretical/ historical paper	Theme 2. Limitations of diagnosis label-centered approaches
103	Lira, A. and M. V. O. Lopes	2011	Nursing diagnosis: educational strategy based on problem-based learning.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
104	Ammenwerth, E., et al.	2001	Nursing process documentation systems in clinical routine - prerequisites and experiences.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
105	Abi Khalil, C., et al.	2025	Optimizing ICU Care: Advancing Nursing Diagnoses with a Decision Support System.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
106	Pesut, D. J. and J. Herman	1998	OPT: transformation of nursing process for contemporary practice.	Conceptual/theoretical/ historical paper	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
107	Bartz, C., et al.	2006	Participation in the International Classification for Nursing Practice (ICNP) programme.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing terminology
108	Rotegaard, A. K. and C. M. Ruland	2010	Patient centeredness in terminologies: Coverage of health assets concepts in the International Classification of Nursing Practice.	Methodological/development/ validation study	Theme 2. Limitations of diagnosis label-centered approaches
109	von Krogh, G. and D. Nåden	2008	Implementation of a documentation model comprising nursing terminologies—theoretical and methodological issues.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing

					terminology
110	Müller-Staub, M., et al.	2008	Implementing nursing diagnostics effectively: cluster randomized trial.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
111	Loor, A. H. L., et al.	2025	Implications of Generative Artificial Intelligence on Ethics in Nursing Education: State of The Art Review.	Review	Theme 5. Transformation of nursing diagnosis education
112	Lee, C. K.	2026	The Appropriateness of Nursing Diagnoses Written by Nursing Students During Adult Nursing Clinical Practice.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
113	Baranwal, A., et al.	2024	Leveraging Generative Pre-Trained Transformer Models for Standardizing Nursing Data.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
114	Macieira, T. G. R., et al.	2025	Making nursing visible: AI-assisted standardization of electronic health record interventions using generative pre-trained transformer models and retrieval-augmented generation process.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
115	Kieft, R., et al.	2018	Mapping the Dutch SNOMED CT subset to Omaha System, NANDA International and International Classification of Functioning, Disability and Health.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
116	Lavoie, P., et al.	2023	Measurement properties of self-reported clinical decision-making instruments in nursing: A COSMIN systematic review.	Review	Theme 5. Transformation of nursing diagnosis education
117	Santana, R. F. and M. V. O. Lopes	2015	Measures of clinical accuracy and indicators of the nursing diagnosis of delayed surgical recovery.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
118	Jedwab, R. M., et al.	2019	Measuring nursing benefits of an electronic medical record system: A scoping review.	Review	Theme 1. Historical formation and standardized nursing terminology

119	O'Neill, E. S., et al.	2005	Modelling novice clinical reasoning for a computerized decision support system.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
120	Sansoni, J. and M. Giustini	2006	More than terminology: using ICNP to enhance nursing's visibility in Italy.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing terminology
121	Lasater, K. and A. Nielsen	2009	Reflective Journaling for Clinical Judgment Development and Evaluation.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
122	Lee, J., et al.	2016	Registered nurses' clinical reasoning skills and reasoning process: A think-aloud study.	Qualitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
123	Laukvik, L. B., et al.	2023	Registered nurses' reasoning process during care planning and documentation in the electronic health records: A concurrent think-aloud study.	Qualitative study	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
124	Hardiker, N. R., et al.	2019	Reinterpreting the nursing record for an electronic context.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing terminology
125	Gomes, D. C., et al.	2021	Representation of Diagnosis and Nursing Interventions in OpenEHR Archetypes.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
126	de Melo, R. P., et al.	2011	Risk for decreased cardiac output: validation of a proposal for nursing diagnosis.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
127	Macieira, T. G. R., et al.	2019	Secondary use of standardized nursing care data for advancing nursing science and practice: a systematic review.	Review	Theme 1. Historical formation and

					standardized nursing terminology
128	El Hussein, M. and G. Harvey	2022	Seeking autonomy: Grounded theory of clinical reasoning processes during simulation based experiences.	Qualitative study	Theme 5. Transformation of nursing diagnosis education
129	Al Sabei, S. D. and K. Lasater	2016	Simulation debriefing for clinical judgment development: A concept analysis.	Conceptual/theoretical/ historical paper	Theme 5. Transformation of nursing diagnosis education
130	Padden-Denmead, M. L., et al.	2016	Simulation With Debriefing and Guided Reflective Journaling to Stimulate Critical Thinking in Prelicensure Baccalaureate Degree Nursing Students.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
131	Letcher, D. C., et al.	2017	Simulation-Based Learning: Improving Knowledge and Clinical Judgment Within the NICU.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
132	Pascoal, L. M., et al.	2022	Simultaneous concept analysis of nursing diagnoses related to respiratory function.	Conceptual/theoretical/ historical paper	Theme 3. Diagnostic accuracy and clinical validity
133	Bertocchi, L., et al.	2025	Standardized Nursing Terminologies and Electronic Health Records: A Secondary Analysis of a Systematic Review.	Review	Theme 1. Historical formation and standardized nursing terminology
134	Macieira, T. G. R., et al.	2024	Standardizing nursing data extracted from electronic health records for integration into a statewide clinical data research network.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
135	Odreman, H., et al.	2025	Prebriefing techniques that promote psychological safety and clinical judgment in nursing students.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
136	Paans, W., et al.	2010	Prevalence of accurate nursing documentation in patient records.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity

137	Lee, J., et al.	2021	Psychometric properties of a clinical reasoning assessment rubric for nursing education.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
138	Bozzetti, M., et al.	2024	Psychometric properties of the revised quality of nursing diagnosis, interventions, and outcomes instrument: A validation study.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
139	Georg, C., et al.	2019	Psychometric properties of the virtual patient version of the Lasater Clinical Judgment Rubric.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
140	de Oliveira, N. B. and H. H. C. Peres	2021	Quality of the documentation of the Nursing process in clinical decision support systems.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
141	Hannah, K. J., et al.	2009	Standardizing nursing information in Canada for inclusion in electronic health records: C-HOBIC.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
142	McNamara, S., et al.	2025	Teaching and Learning Activities That Promote Critical Thinking in Student Nurse Practitioners: A Rapid Review.	Review	Theme 5. Transformation of nursing diagnosis education
143	Johnsen, H. M., et al.	2016	Teaching clinical reasoning and decision-making skills to nursing students: Design, development, and usability evaluation of a serious game.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
144	Gonzalez, L.	2018	Teaching Clinical Reasoning Piece by Piece: A Clinical Reasoning Concept-Based Learning Method.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
145	Querido, D. L., et al.	2019	Terminological subsets of the International Classification for Nursing Practice: an integrative literature review.	Review	Theme 1. Historical formation and standardized nursing terminology
146	Chute, C. G., et al.	1996	The content coverage of clinical classifications. For The Computer-Based Patient Record Institute's Work Group on Codes &	Quantitative study	Theme 1. Historical formation and

			Structures.		standardized nursing terminology
147	Kieft, R., et al.	2017	The development of a nursing subset of patient problems to support interoperability.	Qualitative study	Theme 1. Historical formation and standardized nursing terminology
148	Aydogan, S., et al.	2026	The effect of role-playing and AI-based learning on nursing students' knowledge of the nursing process and diagnostic accuracy: A quasi-experimental study.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
149	Lapkin, S., et al.	2010	The effectiveness of using human patient simulation manikins in the teaching of clinical reasoning skills to undergraduate nursing students: a systematic review.	Review	Theme 5. Transformation of nursing diagnosis education
150	Lee, J. S. and H. K. Son	2024	The effects of problem-based learning integrated with the nursing process on clinical reasoning, communication skills attitude and nursing process competency among nursing students: A quasi-experimental study.	Quantitative study	Theme 5. Transformation of nursing diagnosis education
151	Fernane, F. E., et al.	2025	The impact of NANDA-I, Nursing Interventions Classification (NIC), and Nursing Outcomes Classification (NOC) on the improvement of nursing practice worldwide: Systematic review.	Review	Theme 1. Historical formation and standardized nursing terminology
152	Gilart, E., et al.	2025	The Integration of AI into the Nursing Process: A Comparative Analysis of NANDA, NOC, and NIC-Based Care Plans.	Quantitative study	Theme 3. Diagnostic accuracy and clinical validity
153	Meum, T., et al.	2013	The interplay between global standards and local practice in nursing.	Qualitative study	Theme 2. Limitations of diagnosis label-centered approaches
154	Shin, H., et al.	2015	The Korean version of the Lasater Clinical Judgment Rubric: A validation study.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
155	Lee, K. C.	2021	The Lasater Clinical Judgment Rubric: Implications for Evaluating Teaching Effectiveness.	Conceptual/theoretical/ historical paper	Theme 5. Transformation of nursing diagnosis education

156	Jay, R., et al.	2025	The Use of Virtual Patients to Provide Feedback on Clinical Reasoning: A Systematic Review.	Review	Theme 5. Transformation of nursing diagnosis education
157	Bittencourt, G. K. G. D. and M. D. G. O. Crossetti	2012	Theoretical model of critical thinking in diagnostic processes in nursing.	Conceptual/theoretical/ historical paper	Theme 3. Diagnostic accuracy and clinical validity
158	Niemiec, W. and E. Cota	2025	Towards a component-based framework for mHealth apps: Bridging the gap between the nursing domain language and the computation domain.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
159	Kim, H., et al.	2009	Towards a standardized representation to support data reuse: representing the ICNP semantics using the HL7 RIM.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
160	Matney, S. A., et al.	2008	Translation and Integration of CCC Nursing Diagnoses into ICNP.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
161	Šerková, D. and J. Marečková	2019	Validation of NANDA International diagnoses at an intensive care unit.	Methodological/development/ validation study	Theme 3. Diagnostic accuracy and clinical validity
162	Kim, J. and N. Han	2024	Verifying the Reliability and Validity of the Lasater Clinical Judgment Rubric (LCJR) Measurement in Simulation Nursing Education on Caring for Older Adults with Cognitive Impairment.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
163	Georg, C. and N. Zary	2014	Web-based virtual patients in nursing education: development and validation of theory-anchored design and activity models.	Methodological/development/ validation study	Theme 5. Transformation of nursing diagnosis education
164	Paans, W., et al.	2011	What factors influence the prevalence and accuracy of nursing diagnoses documentation in clinical practice? A systematic literature review.	Review	Theme 3. Diagnostic accuracy and clinical validity
165	McCradden, M. D., et al.	2025	What makes a 'good' decision with artificial intelligence? A grounded theory study in paediatric care.	Qualitative study	Theme 4. Pathophysiological

					integration and patient safety-oriented reasoning
166	Lee, D. S. and J. Y. Park	2019	A review on critical thinking, clinical reasoning, and clinical judgment in nursing education.	Review	Theme 4. Pathophysiological integration and patient safety-oriented reasoning
167	Lee, K. J.	1983	Fundamental structure of knowledge in nursing.	Conceptual/theoretical/ historical paper	Theme 1. Historical formation and standardized nursing terminology
168	Cho, I., et al.	2013	The adoption and use of electronic nursing records in Korean hospitals: findings of a nationwide survey.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
169	Song, M. R., et al.	2020	Cross mapping of standardized nursing diagnoses and problems with NANDA-I in 4 tertiary hospitals.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
170	Beerepoot, I., et al.	2025	Turning Dialogues Into Event Data: Lessons From GPT-Based Recognition of Nursing Actions.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
171	De Groot, K., et al.	2020	Use of electronic health records and standardized terminologies: A nationwide survey of nursing staff experiences.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
172	Macieira, T. G. R., et al.	2021	Use of machine learning to transform complex standardized nursing care plan data into meaningful research variables: a palliative care exemplar.	Methodological/development/ validation study	Theme 1. Historical formation and standardized nursing terminology
173	Park, H. A. and I. Cho	2023	Use of the clinical care classification in South Korean nursing practice: Challenges and opportunities.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology

174	de Korte, M. H., et al.	2020	Using machine learning to assess the predictive potential of standardized nursing data for home healthcare case-mix classification.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
175	Mykkänen, M., et al.	2022	Using standardized nursing data for knowledge generation - Ward level analysis of point of care nursing documentation.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology
176	Bozzetti, M., et al.	2024	Utilization and psychometric properties of Quality of documentation of Nursing Diagnoses, Interventions, and Outcomes (Q-DIO): A scoping review.	Review	Theme 3. Diagnostic accuracy and clinical validity
177	Cho, I., et al.	2023	Utilizing standardized nursing terminologies in implementing an AI-powered fall-prevention tool to improve patient outcomes: a multihospital study.	Quantitative study	Theme 1. Historical formation and standardized nursing terminology