

Integrating Artificial Intelligence and Human Facilitation in Nursing Faculty Development: A Scoping Review of Pedagogical Models, Implementation, and Outcomes

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Abstract

Background

Artificial intelligence (AI), particularly generative AI, is rapidly entering nursing education, yet faculty-development evidence remains fragmented across readiness studies, pedagogical frameworks, and implementation reports. This review mapped how AI and human facilitation are configured within nursing faculty development, the competencies required, implementation conditions, and reported outcomes.

Methods

A scoping review was conducted using JBI methodological guidance and reported according to PRISMA-ScR. PubMed, Scopus, MEDLINE Ultimate, and ScienceDirect were searched from 1 January 2020 to 21 September 2026. Eligible sources involved nursing faculty, nurse educators, academic or clinical educators, or preceptors and addressed AI-enabled faculty development or pedagogical implementation. Empirical studies and substantive original conceptual/framework papers were included. Data were charted on AI functions, human roles, competencies, outcomes, barriers, facilitators, and governance. Descriptive counts and qualitative mapping were used.

Results

The searches identified 927 records; 226 duplicates were removed, 701 records were screened, 88 full-text reports were assessed, and 54 sources were included. Sixteen sources provided Core evidence of explicit human-AI configurations and 38 provided Supporting evidence. Five configurations were identified: human-led, AI-augmented ($n = 7$); AI-led, human-validated ($n = 6$); sequential AI-human ($n = 1$); sequential AI-human partnership ($n = 1$); and framework-guided human implementation ($n = 1$). AI was mainly assigned generation, synthesis, analytics, personalization, and rapid feedback, whereas educators retained validation, clinical contextualization, ethical oversight, relational facilitation, and final professional judgment. Ethical/governance competence, pedagogical integration, and clinical contextualization were the most recurrent faculty capabilities.

Conclusions

The literature is shifting from AI adoption toward human-AI pedagogical configuration. Faculty development should therefore move beyond basic AI literacy to prepare nurse educators for verification, contextualization, assessment design, ethical governance, mentoring, and accountable oversight. Intervention and longitudinal studies are needed to test whether specific configurations improve teaching quality, workload, learner outcomes, and professional practice.

Background

Artificial intelligence (AI) has moved rapidly from a peripheral educational technology to a practical component of nursing teaching, assessment, simulation, scholarly work, and curriculum design. Recent conceptual work describes AI in nursing education as a technology-enhanced educational ecosystem that can augment both learners and educators, while national and international studies show increasing exposure to generative AI across nursing programs [1, 2].

For faculty, the transition is not simply technical. Studies of nursing educators consistently report enthusiasm about AI alongside variable knowledge, uneven institutional support, uncertainty about acceptable use, and concerns about accuracy, academic integrity, privacy, bias, and student overreliance [3–8]. These findings indicate that adoption alone is an inadequate endpoint for faculty development. Educators must decide what AI should do, what should remain human-led, and how accountability should be preserved when AI participates in teaching and assessment.

Emerging nursing-education models have begun to make this division of labor explicit. AI-assisted personalized learning has been framed as a faculty-mediated cycle in which analytics and resource curation remain subject to educator interpretation [9]. Task-level frameworks link forms of AI use to learning outcomes, privacy safeguards, and faculty documentation requirements [10]. Other models place AI within faculty mentorship, clinical contextualization, assessment review, or accessibility workflows while retaining human interpretation, validation, and professional judgment [11–13].

At the same time, much of the wider literature remains centered on AI literacy, readiness, attitudes, and general opportunities for nurse educators [14, 15]. What is less clear is how AI capabilities and human facilitation are actually configured within faculty-development and pedagogical approaches, which educator competencies are required for those configurations, and what implementation outcomes and governance requirements have been reported.

This scoping review therefore aimed to map and characterize faculty-development approaches that integrate AI with human facilitation in nursing education, with particular attention to pedagogical configurations, the respective roles of AI and human facilitators, targeted faculty competencies, implementation strategies, reported outcomes, and gaps in the existing evidence. The primary review question was: What is known about the characteristics, pedagogical configurations, implementation, and outcomes of faculty-development approaches that integrate artificial intelligence with human facilitation in nursing education?

Methods

Design and reporting

This scoping review followed updated JBI methodological guidance for scoping reviews and was reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses

extension for Scoping Reviews (PRISMA-ScR) [16, 17]. The review was designed to map a rapidly developing and methodologically heterogeneous evidence base rather than estimate a pooled intervention effect. No prospective protocol registration was completed.

Eligibility criteria

Eligibility was structured using the Population-Concept-Context (PCC) framework. The population comprised nursing faculty, nurse educators, academic or clinical nurse educators, nursing instructors or academic staff, and nursing preceptors involved in education. The concept comprised faculty-development or educator-focused pedagogical implementation involving AI, generative AI, large language models, conversational AI, or related AI-enabled educational technologies. Human facilitation was treated as a full-text charting variable rather than a mandatory title/abstract search term. The context included undergraduate, postgraduate, academic, clinical, and continuing/professional nursing education.

Eligible evidence included original empirical studies and substantive original conceptual, framework, or model papers that directly contributed to understanding educator preparation, pedagogical implementation, or human-AI configuration. Existing reviews were retained for background and citation chasing but excluded from the primary evidence corpus. Editorials, letters, general commentaries, conference abstracts without full papers, and practical guidance without an original empirical contribution or discrete framework/model were excluded. Studies focused exclusively on students, clinical AI for diagnosis or patient care without an educational faculty component, non-AI blended learning, administrative automation, or health-professions education without separable nursing evidence were also excluded. The publication window was 1 January 2020 to 21 September 2026; online-first papers available by the final search date were eligible even when assigned to a later issue year.

Information sources and search strategy

PubMed, Scopus, MEDLINE Ultimate via EBSCOhost, and ScienceDirect were searched on 21 September 2026. Search concepts combined AI terms, nursing-faculty/educator terms, and faculty-development/pedagogy terms. Human facilitation was deliberately not required in the database query because pilot screening indicated that human oversight, validation, mentorship, or facilitation was often described only in the full text. Database-specific syntax and complete search strings are provided in Additional file 1. The final searches returned 98 records from PubMed, 151 from Scopus, 258 from MEDLINE Ultimate, and 420 from ScienceDirect, for a total of 927 records before deduplication.

Study selection

Records were deduplicated before title/abstract screening. Title and abstract screening and full-text eligibility assessment were conducted by a single reviewer using predefined eligibility criteria. Records

requiring further consideration underwent a structured second-pass consistency review before final classification. At the final eligibility audit, the source-type rule was applied consistently across all provisional inclusions: empirical studies and substantive original conceptual/framework/model papers were retained, whereas general commentaries, letters, reflective viewpoints, and practical guidance without an eligible original contribution were excluded. Full-text exclusion reasons were documented and grouped for the PRISMA-ScR flow diagram.

Data charting and evidence classification

A structured charting form captured bibliographic characteristics, country or region, study design, participants or materials, AI technology, faculty-development/pedagogical domain, AI functions, human/faculty functions, faculty competencies, outcomes or contributions, implementation barriers and facilitators, and ethical/governance issues. Sources were additionally classified into two analytic tiers. Core evidence explicitly described an identifiable AI-human pedagogical or faculty configuration. Supporting evidence addressed faculty readiness, competencies, perceptions, implementation conditions, or adjacent educator-focused evidence without a clearly specified configuration. The complete machine-readable charting and synthesis dataset is provided in Additional file 2.

Synthesis

Descriptive counts and proportions were used to summarize study characteristics and coded domains. Core sources were then mapped according to the sequence and distribution of AI and human functions. Recurrent patterns were iteratively grouped into a provisional taxonomy of human-AI configurations. Because of heterogeneity in designs, populations, interventions, outcomes, and conceptual papers, no meta-analysis was attempted. Formal risk-of-bias appraisal was not undertaken because the objective was to map the nature and range of evidence rather than estimate comparative effectiveness.

Use of large language model assistance

ChatGPT (OpenAI; GPT-5.6 Sol) was used as an assistive tool for organizing extracted information, consistency checking, and language drafting. It was not treated as an author. Eligibility criteria, final inclusion/exclusion decisions, analytic interpretation, and responsibility for the manuscript remained under human author oversight.

Results

Study selection

The database searches identified 927 records. After removal of 226 duplicates, 701 records were screened. A total of 594 records were excluded before retrieval, leaving 107 reports sought for full text.

Nineteen reports could not be retrieved after targeted retrieval attempts. Eighty-eight full-text reports were assessed for eligibility, of which 34 were excluded: 16 secondary reviews or syntheses, 16 ineligible publication/source types or guidance papers, one wrong-population/student-focused report, and one source in which the AI/faculty-development concept was not substantive. Fifty-four sources were included in the final review. Sixteen were classified as Core evidence and 38 as Supporting evidence. The study-selection process is shown in Fig. 1.

Characteristics of included evidence

The characteristics of the 54 included sources are summarized in Table 1, with source-level details provided in Additional file 1 [1–15, 18–56]. Forty sources (74.1%) were empirical and ten (18.5%) were substantive conceptual/framework papers; two were implementation/experience reports and two represented other substantive source types retained after eligibility review. The literature was highly contemporary: 34 sources were dated 2026, 15 were published in 2025, three in 2024, one in 2023, and one had a 2027 issue date but was available online before the final search date. Empirical evidence represented 21 countries. Cross-sectional designs ($n = 18$) and qualitative studies ($n = 11$) predominated, followed by mixed-methods studies ($n = 5$); only one quasi-experimental study and one pilot/feasibility study were identified.

Table 1
Characteristics of the included evidence (N = 54).

Characteristic	Category	n (%) or n
Evidence tier	Core	16 (29.6%)
	Supporting	38 (70.4%)
Publication class	Empirical	40 (74.1%)
	Conceptual/framework	10 (18.5%)
	Implementation/experience report	2 (3.7%)
	Other substantive source type	2 (3.7%)
Year/issue year	2023	1 (1.9%)
	2024	3 (5.6%)
	2025	15 (27.8%)
	2026	34 (63.0%)
	2027 issue; online before search cutoff	1 (1.9%)
Empirical design	Cross-sectional	18
	Qualitative	11
	Mixed methods	5
	Development/validation	2
	Comparative/methodological	2
	Pilot/feasibility	1
	Quasi-experimental	1

Note: Percentages use N = 54 unless otherwise stated. Categories within publication class and study design are mutually exclusive as coded in the final extraction dataset.

AI technologies and faculty-development domains

Generative AI or large language models dominated the evidence base (51/54), with ChatGPT explicitly examined in 42 sources. Other technologies included machine learning (n = 14), Microsoft Copilot (n = 10), GPT-4 (n = 10), natural language processing (n = 10), AI-enabled virtual or simulated patients (n = 7), and AI-supported learning analytics (n = 5). Faculty development or training was the most frequent pedagogical domain (31/54), followed by formal frameworks or pedagogical models (15/54).

Human-AI pedagogical configurations

Analysis of the 16 Core sources identified five configurations. Human-led, AI-augmented approaches were most common (n = 7), followed by AI-led, human-validated approaches (n = 6). One source represented sequential AI-human use, one a sequential AI-human partnership, and one framework-guided human implementation. Across the Core evidence, AI was not positioned as an autonomous replacement for faculty; instead, it was embedded within educator-controlled or educator-validated workflows. These configurations are summarized in Table 2.

Table 2
Human-AI pedagogical configurations in Core evidence (n = 16).

Configuration	n	Interpretation
Human-led, AI-augmented	7	Faculty retain pedagogical leadership while AI supports analysis, personalization, design, feedback, or generation.
AI-led, human-validated	6	AI produces or screens outputs that are subsequently checked, contextualized, revised, or approved by faculty.
Sequential AI-human	1	AI-supported preparation or generation is followed by educator-led activity.
Sequential AI-human partnership	1	AI supports synthesis or reflection before human mentoring and interpretation.
Framework-guided human implementation	1	A structured competency or governance framework guides educator-controlled AI use.
<i>Note: Core evidence only. Each Core source was assigned to one primary configuration for synthesis; counts therefore sum to 16.</i>		

Pedagogical functions assigned to AI and retained by faculty

Across the full corpus, AI functions were most frequently coded as learning analytics/data synthesis and feedback/debriefing (46 sources each), curriculum/course design (45), mentoring/reflection support (42), assessment/item support (34), and clinical reasoning/decision support (31). Human/faculty functions were qualitatively different: faculty development/training (46), facilitation/debriefing (45), feedback/reflection guidance (45), validation/verification (39), ethical/governance oversight (31), and contextualization/clinical anchoring (30). Within Core sources, these functions formed the basis of the five configurations rather than separate stand-alone activities. The distribution of these AI and human functions is presented in Table 3.

Table 3
Frequently coded AI and human functions across included sources.

Role holder	Function	Sources, n
AI	Learning analytics/data synthesis	46
AI	Feedback/debriefing	46
AI	Curriculum/course design	45
AI	Mentoring/reflection support	42
AI	Assessment/item support	34
AI	Clinical reasoning/decision support	31
Human/faculty	Faculty development/training	46
Human/faculty	Facilitation/debriefing	45
Human/faculty	Feedback/reflection guidance	45
Human/faculty	Validation/verification	39
Human/faculty	Ethical/governance oversight	31
Human/faculty	Contextualization/clinical anchoring	30
<i>Note: Counts are not mutually exclusive because one source could contribute to multiple AI or human functions.</i>		

Faculty competencies, outcomes, and implementation conditions

Faculty preparation extended beyond technical familiarity. Ethical/governance competence was coded in 53 sources, pedagogical integration in 45, AI literacy in 36, clinical contextualization/judgment in 35, academic-integrity competence in 30, and critical appraisal/verification in 28. Reported outcome or contribution domains were similarly broad, including knowledge/literacy/skills and quality/accuracy/validity (53 sources each), ethics/governance outcomes (52), adoption/use and pedagogical integration (50 each), implementation feasibility/acceptability (50), and efficiency/workload/time (47).

Ethics, privacy, bias, and academic-integrity concerns were the most widespread challenges (52/54), followed by accuracy or reliability concerns (38), equity/access issues (37), and infrastructure/resource constraints (35). The most frequent facilitators were structured frameworks/scaffolds (53), guidelines or governance mechanisms (51), formal faculty development (46), peer mentoring/collaboration (40), and institutional support/resources (38). Safety, accuracy, and validation dominated ethical/governance coding (53), followed by bias/equity/fairness (48), academic integrity/authorship (44), and

privacy/confidentiality/data governance (44). These leading competency, barrier, facilitator, and governance domains are summarized in Table 4.

Table 4
Leading competency, barrier, facilitator, and governance domains.

Domain	Coded item	Sources, n
Faculty competencies	Ethical/governance competence	53
	Pedagogical integration	45
	AI literacy	36
	Clinical contextualization/judgment	35
	Academic integrity	30
	Critical appraisal/verification	28
Barriers	Ethics/privacy/bias/integrity	52
	Accuracy/hallucination/reliability	38
	Equity/digital divide/access	37
	Infrastructure/resource constraints	35
Facilitators	Structured framework/scaffold	53
	Guidelines/policies/governance	51
	Formal training/faculty development	46
	Peer mentoring/collaboration	40
	Institutional support/resources	38
Governance issues	Safety/accuracy/validation	53
	Bias/equity/fairness	48
	Academic integrity/authorship	44
	Privacy/confidentiality/data governance	44
<i>Note: Counts are not mutually exclusive because one source could contribute to multiple competency, implementation, and governance domains.</i>		

Evidence gaps

The evidence base remained developmental rather than mature. Thirty-eight of 54 sources were Supporting rather than Core evidence, indicating that much of the literature still focused on readiness, literacy, perceptions, or implementation context rather than explicit human-AI faculty-development models. Intervention-oriented evidence was sparse, with only one quasi-experimental study and one

pilot/feasibility study. Several frameworks specified strong models of oversight, validation, mentorship, or governance, but few had undergone longitudinal or multisite testing. Explicit faculty-role transformation was coded in only four sources.

Discussion

Principal findings

This review shows that the emerging question in nursing education is no longer simply whether faculty should adopt AI, but how pedagogical responsibility should be distributed between AI and human educators. The 16 Core sources converged on configurations in which AI supported generation, synthesis, analytics, personalization, or rapid feedback while faculty retained contextual interpretation, verification, ethical oversight, relational guidance, and final professional judgment. This moves the literature from an adoption-oriented framing toward a configuration-oriented framing.

From AI adoption to human-AI pedagogical configuration

Several Core sources demonstrate that AI is most educationally defensible when embedded within a faculty-mediated process. Madayag [9] conceptualized personalized nursing education as a cycle in which AI supports learning analytics and resource curation while faculty retain responsibility for interpreting assessment evidence, guiding instruction, and maintaining caring-centered oversight. Moore et al. [10] similarly translated AI use into task-level categories tied to learning outcomes, safeguards, and faculty documentation. In Jones and Echeles [13], AI-generated alternative text functioned as a useful first draft, but faculty remained essential for correcting semantic errors, reducing unnecessary verbosity, and restoring pedagogical context.

The mentorship literature extends this logic. Englund et al. [11] positioned AI as a support for reflective synthesis and feedback continuity, whereas mentor interpretation, longitudinal human feedback, and ethical governance remained central. Together, these models suggest that AI may redistribute cognitive and administrative workload without displacing the interpretive authority of nurse educators.

Reconstructing the role of the nurse educator

The findings indicate a possible shift in educator identity from information transmitter toward validator, contextual anchor, mentor, reflective facilitator, and steward of professional judgment. Shen et al. [12] explicitly described double-qualified nursing educators as contextual anchors who help learners test GenAI outputs against clinical reality. This role is particularly important in nursing because clinical knowledge is patient-specific, relational, and ethically situated. A plausible AI response is not automatically appropriate for a particular patient, learner, or care context.

Human facilitation should therefore not be understood as a residual role that remains after automation. Rather, the evidence suggests that human facilitation is part of the architecture that makes AI educationally meaningful and professionally accountable.

Faculty development requires more than AI literacy

The competency profile identified in this review extends well beyond technical familiarity. Ethical governance, pedagogical integration, clinical contextualization, critical appraisal, academic integrity, assessment, and mentoring repeatedly appeared alongside AI literacy. This pattern is consistent with faculty-readiness studies. Gendler et al. [3] reported generally positive attitudes among nursing faculty but limited self-identified expertise and uneven institutional policy support. Bouriami et al. [44] likewise emphasized institutional guidance and educator training for meaningful ChatGPT use in active teaching.

Faculty-development programs may therefore be more effective when organized progressively. Foundational preparation can address capabilities, limitations, prompting, privacy, and bias; applied preparation can focus on assessment, simulation, feedback, course design, and verification; advanced preparation can address mentoring, governance, curriculum redesign, human-AI co-design, and implementation evaluation. Such staged development should be tested empirically rather than assumed to improve practice.

Ethical governance is a pedagogical function

Ethical concerns were not peripheral to the evidence base; they were among its most consistent themes. The included frameworks suggest that governance must be enacted within daily teaching, not confined to institutional policy. Moore et al. [10] linked permitted AI use to task purpose, privacy, transparency, and developmental scaffolding. Jones and Echeles [13] showed why faculty review remains necessary even when AI output appears accurate. In this sense, verification, override, disclosure, and contextualization are not only compliance activities; they are pedagogical responsibilities.

Institutional conditions and nursing leadership

The review also indicates that responsible AI integration is strongly shaped by organizational conditions. Formal faculty development, clear guidelines, approved tools, infrastructure, leadership, peer collaboration, and technical support repeatedly appeared as facilitators, whereas unclear governance, limited infrastructure, workload, uncertainty, and training gaps impeded implementation. Responsibility should therefore not be shifted entirely to individual educators. Nursing schools need coordinated strategies that connect faculty development, technology governance, assessment redesign, and workload planning.

Implications for nursing education and faculty development

Nursing programs should move from generic AI-awareness sessions toward task-specific faculty preparation. Educators need opportunities to practice using AI within authentic teaching activities such as scenario development, assessment writing, feedback generation, accessibility, learning analytics, and course planning while being required to verify and contextualize outputs. Human-mediated activities in

which relational and interpretive functions are central, including clinical mentoring, reflective supervision, simulation debriefing, and professional identity formation, should remain explicitly faculty-led or faculty-governed.

Institutions should also align AI use with nursing competencies and learning outcomes. Faculty should be able to explain why AI is appropriate for a task, what learning process must remain visible, what evidence of student reasoning is required, and who retains responsibility for final decisions. Success of faculty development should be evaluated using observable pedagogical and professional outcomes rather than satisfaction or self-reported confidence alone.

Implications for future research

Future research should prioritize prospective evaluations of structured faculty-development interventions and clearly specified human-AI configurations. Comparative studies could test whether AI-led, human-validated approaches are more suitable for preliminary content generation or screening, whereas human-led, AI-augmented approaches may be more appropriate for clinical reasoning, mentoring, or debriefing. Longitudinal studies should examine sustained faculty behavior, workload redistribution, automation bias, professional identity, and learner outcomes. Implementation outcomes such as feasibility, acceptability, fidelity, sustainability, equity, organizational readiness, and cost also require attention.

Strengths and limitations

A strength of this review is its explicit distinction between Core evidence describing identifiable human-AI configurations and Supporting evidence addressing readiness, competencies, perceptions, or implementation context. This avoided treating all AI-related nursing-education sources as equivalent and enabled a more focused analysis of functional role distribution.

Several limitations should be acknowledged. Nineteen potentially relevant reports could not be retrieved despite targeted retrieval attempts, creating a possibility of availability bias. Most included evidence was recent and descriptive, and many proposed frameworks have not undergone longitudinal or multisite evaluation. The review also combined empirical and substantive conceptual evidence because the field is emerging; these source types should not be interpreted as providing equivalent levels of effectiveness evidence. In addition, screening was conducted by a single reviewer, which may increase the risk of selection error despite predefined criteria and a second-pass consistency audit. Heterogeneity in study designs and outcomes precluded quantitative synthesis.

Interpretive synthesis

Taken together, the evidence suggests that the future of AI in nursing faculty development will be defined neither by human-only teaching nor by AI-only instruction, but by selective delegation with retained human accountability. AI is particularly suited to speed, generation, synthesis, pattern recognition, and scalability. Human educators remain essential when teaching requires clinical contextualization, ethical judgment, relational sensitivity, reflective dialogue, and professional accountability. The central question therefore shifts from whether nurse educators should use AI to which educational functions can be

delegated, which must remain human-led, and how the two should be configured to preserve safe, ethical, and relationally grounded nursing education.

Conclusions

This scoping review mapped 54 sources addressing AI in nursing faculty development and pedagogical implementation, including 16 Core sources that described identifiable human-AI configurations. Five configurations were identified: human-led, AI-augmented; AI-led, human-validated; sequential AI-human; sequential AI-human partnership; and framework-guided human implementation. Across these configurations, AI was primarily used for generation, synthesis, analytics, personalization, and rapid feedback, whereas educators retained responsibility for validation, clinical contextualization, ethical judgment, relational facilitation, mentorship, and final professional decisions.

Faculty development should therefore move beyond basic AI literacy toward pedagogical integration, critical appraisal, assessment design, clinical contextualization, ethical governance, reflective facilitation, and accountable oversight. Sustainable implementation will also require institutional policies, approved tools, technical support, peer learning, and evaluation. Because the evidence base remains predominantly descriptive, future research should move from AI adoption and readiness toward prospective evaluation of human-AI pedagogical configurations and their effects on teaching quality, faculty workload, learner outcomes, clinical reasoning, and professional practice.

Abbreviations

AI: Artificial intelligence

GenAI: Generative artificial intelligence

JB: Joanna Briggs Institute

LLM: Large language model

PCC: Population-Concept-Context

PRISMA-ScR: Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews

Declarations

Ethics approval and consent to participate

Not applicable. This scoping review used published literature and did not involve human participants, human data, human tissue, or animals.

Clinical trial number: not applicable.

Consent for publication

Not applicable.

Availability of data and materials

The dataset(s) supporting the conclusions of this article is(are) included within the article and its additional files. Additional file 1 contains the complete database search strategies and characteristics of the 54 included sources. Additional file 2 contains the machine-readable data-charting, evidence-classification, and synthesis dataset used in this scoping review.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

APM conceived the review, developed the study methodology, designed the search strategy, conducted the literature search and screening, performed data charting and synthesis, interpreted the findings, and drafted the manuscript. SMK contributed to the methodological development, screening process, data interpretation, and critical revision of the manuscript. AY contributed to the interpretation of findings, conceptual development of the review, and critical revision of the manuscript for important intellectual content. ML contributed to the synthesis and interpretation of the evidence, refinement of the discussion, and critical revision of the manuscript. RDS contributed to the interpretation of findings, refinement of the implications for nursing education and faculty development, and critical revision of the manuscript. All authors read and approved the final manuscript.

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Figures

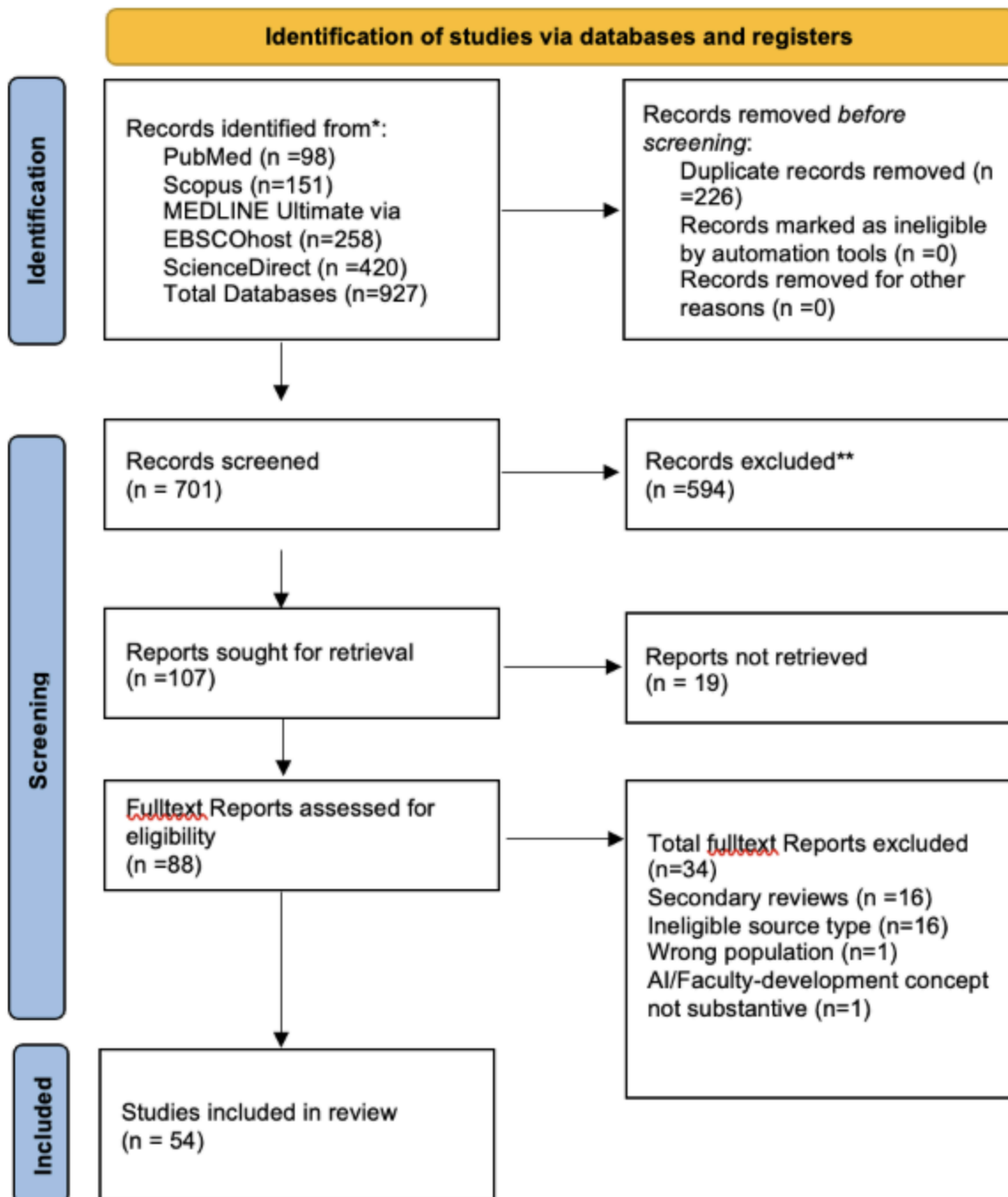


Figure 1

PRISMA-ScR flow diagram for study selection.

Records were identified across four databases, deduplicated, screened, retrieved, and assessed for eligibility. The final corpus comprised 54 included sources: 16 Core and 38 Supporting evidence sources.

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