

Competencies of nursing student supervisors in clinical education: Scoping review protocol

Competências dos supervisores de estudantes de enfermagem na educação clínica: Protocolo de revisão de escopo

Competencias de los supervisores de estudiantes de enfermería en la educación clínica: Protocolo de revisión de alcance

Received: 07/13/2025 | Revised: 07/23/2025 | Accepted: 07/24/2025 | Published: 07/28/2025

Paula Costa Perfeito

ORCID: <https://orcid.org/0009-0000-0443-2132>

Nursing School of Porto, Portugal

E-mail: paulacperfeito@sapo.pt

Inês Moreira

ORCID: <https://orcid.org/0009-0007-6413-5915>

Nursing School of Porto, Portugal

E-mail: inesmoreira1805@gmail.com

Inês Martins Esteves

ORCID: <https://orcid.org/0000-0002-8867-7424>

School of Medicine and Biomedical Sciences, University of Porto, Portugal

RISE-Health, Faculty of Medicine of the University of Porto, Portugal

Health Sciences Research Unit: Nursing (UICISA:E), Portugal

E-mail: inesmartinsesteves@gmail.com

Mauro Mota

ORCID: <https://orcid.org/0000-0001-8188-6533>

RISE-Health, Faculty of Medicine of the University of Porto, Portugal

Health Sciences Research Unit: Nursing (UICISA:E), Portugal

Adjunct Professor at Viseu Higher School of Health, Portugal

E-mail: maurolopesmota@gmail.com

Margarida Reis Santos

ORCID: <https://orcid.org/0000-0002-7948-9317>

School of Medicine and Biomedical Sciences; University of Porto, Portugal

Nursing School of Porto, Portugal

RISE-Health, Faculty of Medicine of the University of Porto, Portugal

Regina Pires

ORCID: <https://orcid.org/0000-0003-1610-7091>

Nursing School of Porto, Portugal

RISE-Health, Faculty of Medicine of the University of Porto, Portugal

E-mail: regina@esenf.pt

Abstract

The objective of this scoping review is to map the competencies required of clinical supervisors of nursing students. A scoping review will be conducted following Joanna Briggs Institute guidelines and the PRISMA-ScR checklist. We will search PubMed, CINAHL, PsycINFO, Scopus, and Web of Science, as well as grey literature sources, covering from 1993 through July 2025 without language restrictions. Inclusion criteria comprise studies involving clinical supervisors of undergraduate and postgraduate nursing students (Participants), explicitly defining the knowledge, skills, and attitudes that constitute effective supervision (Concept) in clinical education settings, such as hospital wards, community health settings, and simulation laboratories (Context). Two independent reviewers will screen titles/abstracts and full texts using Rayyan, with disagreements resolved by a third reviewer. Data charting will employ a piloted extraction form. The results of the search will be presented in a PRISMA-ScR flow diagram. Findings will be reported via narrative synthesis and tabular summaries detailing author/year, study aim, methodological design, competency definitions (knowledge, skills, attitudes), application contexts, and key conclusions. This comprehensive competency mapping is expected to inform educational practice, guide future research and underscore the importance of clinical supervision in nursing student training, curriculum development, and professional development.

Keywords: Clinical competence; Clinical supervision; Competency-Based education; Mentors; Students, Nursing; Scoping review; Teaching.

Resumo

Mapear as competências requeridas aos supervisores clínicos de estudantes de enfermagem. Será realizada uma revisão de escopo seguindo as diretrizes do Joanna Briggs Institute e o checklist PRISMA-ScR. Serão pesquisadas as bases PubMed, CINAHL, PsycINFO, Scopus e Web of Science, bem como fontes de literatura cinzenta, abrangendo o período de 1993 até julho de 2025, sem restrição de idioma. Os critérios de inclusão contemplam estudos que envolvam supervisores clínicos de estudantes de enfermagem de graduação e pós-graduação (Participantes), que definam explicitamente os conhecimentos, habilidades e atitudes que constituem uma supervisão eficaz (Conceito) em ambientes de educação clínica, tais como enfermarias hospitalares, contextos de saúde comunitária e laboratórios de simulação (Contexto). Dois revisores independentes farão a triagem de títulos/resumos e textos completos no Rayyan, com divergências resolvidas por um terceiro revisor. A extração de dados utilizará um formulário pilotado, e os resultados da busca serão apresentados em um diagrama de fluxo PRISMA-ScR. Os achados serão apresentados por meio de síntese narrativa e quadros tabulares detalhando autor/ano, objetivo do estudo, desenho metodológico, definições de competências (conhecimentos, habilidades, atitudes), contextos de aplicação e principais conclusões. Este mapeamento abrangente de competências deverá orientar práticas educativas, guiar futuras investigações e enfatizar a importância da supervisão clínica na formação de estudantes de enfermagem, no desenvolvimento curricular e no aperfeiçoamento profissional.

Palavras-chave: Competência clínica; Supervisão clínica; Educação baseada em competências; Estudantes de enfermagem; Mentores; Revisão de escopo; Ensino.

Resumen

Mapear las competencias requeridas a los supervisores clínicos de estudiantes de enfermería. Se llevará a cabo una revisión de alcance según las directrices del Joanna Briggs Institute y el checklist PRISMA-ScR. Se buscará en PubMed, CINAHL, PsycINFO, Scopus y Web of Science, así como en fuentes de literatura gris, abarcando desde 1993 hasta julio de 2025, sin restricciones de idioma. Los criterios de inclusión comprenden estudios que involucren supervisores clínicos de estudiantes de enfermería de pregrado y posgrado (Participantes), que definan explícitamente los conocimientos, habilidades y actitudes que constituyen una supervisión eficaz (Concepto) en entornos de educación clínica, como salas de hospital, contextos de salud comunitaria y laboratorios de simulación (Contexto). Dos revisores independientes examinarán títulos/resúmenes y textos completos en Rayyan, resolviendo discrepancias con un tercer revisor. La extracción de datos empleará un formulario pilotado, y los resultados de la búsqueda se mostrarán en un diagrama de flujo PRISMA-ScR. Los hallazgos se presentarán mediante síntesis narrativa y tablas que detallen autor/año, objetivo del estudio, diseño metodológico, definiciones de competencias (conocimientos, habilidades, actitudes), contextos de aplicación y conclusiones clave. Este mapeo integral de competencias está destinado a informar la práctica educativa, orientar futuras investigaciones y subrayar la importancia de la supervisión clínica en la formación de estudiantes de enfermería, el desarrollo curricular y el perfeccionamiento profesional.

Palabras clave: Competencia clínica; Supervisión clínica; Educación basada en competencias; Estudiantes de enfermería; Mentores; Revisión de alcance; Enseñanza.

1. Introduction

Clinical supervision is a cornerstone of nursing education, bridging classroom learning with real-world patient care. In the European Union, Directive 2005/36/EC mandates that at least half of nursing curricula occur in supervised clinical settings, underscoring its importance for developing safe, competent practitioners. Despite this emphasis, evidence shows that students frequently struggle to acquire key competencies (such as critical thinking, decision-making, and technical skills) due in part to variability in supervisory practices (Beiranvand et al., 2021; Hobenu et al., 2025). When supervision is inadequate, the consequences can be grave: studies link poor oversight to increased medication errors, higher rates of patient-safety incidents, and elevated student stress and attrition (Brammer et al., 2021; Heydarikhayat et al., 2024; Irvine et al., 2025; Reid-Searl et al., 2008; Tomas & Fillipus, 2024).

Although numerous primary studies describe elements of effective supervision, from feedback strategies in acute-care wards (Buanz et al., 2024) to interpersonal support in simulation laboratories (Suliman & Warshawski, 2022), their findings remain siloed. Definitions of “competence” vary widely, often conflating knowledge, skills, attitudes, and behaviours without clarifying how these domains interact across different clinical contexts (AlMekkawi et al., 2020; Kuivila et al., 2020). In addition, evidence confirms that students’ acquisition of clinical competencies is strongly influenced by the quality of supervision they receive (Beiranvand et al., 2021; Hobenu et al., 2025), yet guidelines for supervisor training and accreditation

criteria lack a unified competency framework. This fragmentation challenges educators and accreditation bodies in setting clear standards and designing targeted training for clinical supervisors.

Given the World Health Organization's ongoing emphasis on strengthening nursing-educator qualifications to ensure high-quality education and prepare professionals capable of meeting community health needs (Beiranvand et al., 2021; World Health Organization, 2016), it is imperative to identify and map the specific competencies required of clinical supervisors.

Clinical Supervision is defined as a formal process of professional support and learning that enables practitioners to develop knowledge and skills, and to take responsibility for their professional performance, thereby ensuring the quality of care and client safety (Department of Health, 1993). It plays a central role in the professional development of nursing students and is characterized by a complex relationship between supervisor and student, involving multiple forms of knowledge, conceptions, and practices (Aviz et al., 2022; Cunha et al., 2017).

The clinical supervisor is defined as a qualified healthcare professional formally designated to guide and support nursing during clinical education (Dyar et al., 2020). Supervisors are expected to model best practice, demonstrate strong pedagogical skills, and facilitate students' application of theory, procedural competence, and professional maturation (AlMekkawi et al., 2020; Buanz et al., 2024).

Competence is defined as the combination of specialized knowledge, technical skills, critical judgment, and personal attributes required to perform ethically and safely in specific roles and contexts (Beiranvand et al., 2021; Kuivila et al., 2020).

Using the PCC framework, we have defined our inclusion criteria as follows. Participants are qualified clinical supervisors – whether faculty, clinical nurses, or preceptors – responsible for undergraduate and postgraduate nursing students. Concept refers to explicitly articulated supervisor competencies, operationally divided into knowledge (e.g., pedagogical theory, evidence-based guidelines), skills (e.g., feedback delivery, procedural coaching), and attitudes (e.g., ethical practice, cultural sensitivity). Context includes all supervised practice environments (hospital wards, community clinics, and simulation laboratories) to capture setting-specific expressions of these competencies. We will exclude studies outside nursing, those focused solely on student outcomes, and non-empirical grey literature (e.g., editorials, opinion pieces).

The objective of this protocol is to map the competencies required of clinical supervisors of nursing students. A preliminary search of Medline, the Cochrane Database of Systematic Reviews, and the Joanna Briggs Institute Evidence Synthesis repository (June 2025) was conducted but no existing systematic or scoping reviews on this topic were identified. Given the breadth and heterogeneity of the literature (spanning qualitative, quantitative, and mixed-methods designs), this scoping review will map the competencies required of clinical supervisors of nursing students and identify evidence gaps across diverse study types - without restricting to narrow intervention-effect questions.

This scoping review aims to answer the following questions:

1. Which competencies (knowledge, skills, and attitudes) are described in the literature for clinical supervisors of nursing students across clinical placement settings?
 - a. How are these competencies defined?
 - b. Which competencies are most frequently employed by clinical supervisors in hospital, community, and simulation settings?

2. Methodology

This scoping review will be conducted in accordance with the Joanna Briggs Institute (JBI) methodological guidelines for scoping reviews (Peters et al., 2020a, 2020b) and follow the PRISMA-ScR reporting standards (Tricco et al., 2018). The review protocol has been registered with the Open Science Framework (<https://osf.io/p9yd4>).

Inclusion criteria

Participants

We will include clinical supervisors of nursing students at both undergraduate and postgraduate levels. Eligible supervisors are registered nurses – employed in public or private healthcare setting or in academic institutions (e.g., nursing schools or university faculties) - who bear formal responsibility for guiding, assessing, and supporting student nurses in clinical practice, with or without recognized advanced competencies in clinical supervision. We will exclude non-nurse educators (e.g., allied health preceptors), students acting as peer mentors, and supervisors without direct responsibility for nursing-student clinical education.

Concept

We will include studies that explicitly describe or define clinical supervisor competencies in terms of knowledge (e.g., theoretical foundations of pedagogy, clinical guidelines, evidence-based practice), skills (e.g., feedback delivery, student assessment, procedural coaching), and attitudes (e.g., ethical practice, cultural sensitivity, commitment to student welfare). We will also capture the indicators or assessment tools authors use to measure these competencies (Beiranvand et al., 2021; Kuivila et al., 2020). We will exclude studies that focus only on nursing-student competencies or outcomes, general clinical-education interventions without specific reference to supervisor competencies, and opinion pieces or editorials that do not present empirical competency definitions.

Context

We will include studies conducted in any supervised clinical placement environment where nursing students deliver patient care under the guidance of a clinical supervisor. Eligible settings encompass acute-care and specialty hospital wards, community health environments (e.g. primary-care clinics, prisons, nursing homes, long-term care facilities, home care services), simulation laboratories, and other practice sites. We will include studies from all geographical regions and healthcare systems, with no restrictions on cultural or demographic characteristics of the setting. We will exclude studies set solely in academic classroom environments, virtual or e-learning platforms without in-person clinical components, and those that do not explicitly describe the supervisory context or competencies under investigation.

Types of sources

This review will encompass all empirical study designs (quantitative, qualitative and mixed methods) published from 1993 onward. Studies involving other healthcare disciplines (where nursing supervisors or their competencies are not the focus), research examining only student outcomes without reference to supervisor competencies, and non-empirical sources (e.g. commentaries, editorials, opinion papers) will be excluded.

Search strategy

A three-step search strategy will be employed to identify both published and unpublished studies. First an initial limited search of MEDLINE (PubMed) and CINAHL (EBSCO) was undertaken to identify articles on the topic. The text words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles were used to develop a full search strategy for report the name of the relevant databases/information sources (see Table 1).

The search strategy, including all identified keywords and index terms, will be adapted for each included database and/or information source: Medline, CINAHL, PsycINFO, Nursing & Allied Health Collection, Cochrane Central, MedicLatina, Web of Science, and Scopus. Grey literature sources will include Open Access Theses and Dissertations and the

first five pages of Google and Google Scholar. The reference list of all included sources of evidence will be screened for additional studies. The PRESS checklist will validate the search strategy, which will be updated in July 2025.

We will consider studies in any language; those not in English, Portuguese and Spanish will be translated using an Artificial Intelligence Software (e.g. DeepL) or by a qualified health-literacy translator. Studies published since 1993 will be included as this year marks the introduction of an internationally recognized definition of clinical supervision in healthcare (Department of Health, 1993).

Table 1 - Search strategy for Medline (PubMed). Conducted on July 12, 2025.

Search	Query	Results
#1	((("Preceptorship"[Mesh] OR "Mentors"[Mesh] OR supervisor*[Title/Abstract] OR preceptor*[Title/Abstract] OR mentor*[Title/Abstract] OR instructor*[Title/Abstract] OR facilitator*[Title/Abstract] OR educator*[Title/Abstract]) AND ("Nursing"[Mesh] OR nurs*[Title/Abstract] OR midwi*[Title/Abstract]))	31,949
#2	((("Competency-Based Education"[Mesh] OR competency*[Title/Abstract] OR skill*[Title/Abstract] OR knowledge*[Title/Abstract] OR attitude*[Title/Abstract]) AND (indicator*[Title/Abstract] OR tool*[Title/Abstract] OR instrument*[Title/Abstract] OR measure*[Title/Abstract]))	351,249
#3	("Clinical Clerkship"[Mesh] OR "Simulation Training"[Mesh] OR "clinical placement"[Title/Abstract] OR "clinical practicum"[Title/Abstract] OR simulation[Title/Abstract] OR simulation laborator*[Title/Abstract] OR hospital[Title/Abstract] OR ward*[Title/Abstract] OR "community clinic*[Title/Abstract] OR "healthcare setting"[Title/Abstract])	1,804,031
#4	(review[pt] OR editorial[pt] OR letter[pt] OR comment[pt] OR classroom[Title/Abstract] OR virtual[Title/Abstract] OR online[Title/Abstract] OR e-learning[Title/Abstract])	6,380,717
#5	#1 AND #2 AND #3 NOT #4	621
#6	("1993/01/01"[Date - Publication]: "2025/07/31"[Date - Publication])	604

Source: Authors.

Study and source of evidence selection

All retrieved records will be collated and imported into EndNote 21 (Clarivate Analytics, PA, USA), where duplicates will be removed. The de-duplicated set will then be uploaded into Rayyan (Ouzzani et al., 2016) for screening. Two reviewers (PP and IM) will independently screen titles and abstracts against the inclusion criteria, blinded to each other's decisions. A pilot exercise on 50 records will ensure consistency, and inter-rater reliability will be assessed using Cohen's κ on a 10% sample (target $\kappa \geq 0.75$). Discrepancies will be resolved through consensus or consultation with a third reviewer (MM).

Records deemed potentially eligible will have their full texts retrieved for detailed assessment by the same two reviewers. Reasons for exclusion at this stage will be documented and reported. Consensus will resolve any disagreements, with MM providing tie-breaking input when necessary.

The entire selection process, including numbers of records identified, screened, excluded (with reasons), and included, will be presented in accordance with the PRISMA-ScR flow diagram (Tricco, 2018).

Data extraction

Data extraction will be independently conducted by two reviewers (PP and IM) using a draft data-extraction form developed in Microsoft Excel (see table 2). This form will be piloted on five randomly selected studies to ensure clarity and consistency. Any modifications made during piloting will be documented in the Scoping Review report. Extracted elements

will include (1) study characteristics (author(s), year, country, design, and sample size), (2) participant details (supervisor role, credentials, and years of experience), (3) competency definitions (operational definitions of knowledge, skills, and attitudes), (4) clinical context (setting type: hospital ward, community clinic, simulation lab, and specialty area, where possible), (5) assessment indicators/tools (any measures or instruments used by the study's authors to evaluate competencies) and (6) key findings (frequency, prominence, or thematic grouping of competencies reported). Where required information is missing or unclear, we will contact corresponding authors to request additional details.

Table 2 - Data extraction form.

Field	Description / Guidance
Study ID	Unique identifier (e.g., first author surname + year)
Full citation	Complete reference (considering the Journal style for publication)
Country & setting	Country of study; setting (e.g., hospital ward, community clinic, simulation lab)
Study aim / Objective	Authors' stated aim(s) or research question(s)
Design & methods	Study design (qualitative, quantitative, mixed methods); data collection methods (e.g., interviews, survey, observation)
Sample	Characteristics of participants: number of supervisors; supervisor qualifications; student level (undergrad/postgrad)
Supervisor definition	How authors define or describe the clinical supervisor role
Competency framework / Definition	Source or framework used for competencies (e.g., Kuivila et al. 2020); operational definition
Domains of competency	List domains and subdomains:
- Knowledge	Theoretical foundations, clinical guidelines, evidence-based practice
- Skills	Feedback delivery, student assessment, procedural coaching
- Attitudes	Ethical practice, cultural sensitivity, commitment to student welfare
Assessment tools / Indicators	Instruments or measures used to assess supervisor competencies; psychometric properties if available
Context of clinical education	Type of placement (acute care, community, long-term care, simulation)
Key findings	Summary of main results related to supervisor competencies
Conclusions / Implications	Authors' conclusions and suggested implications for practice, policy or research
Quality / Risk of bias	Brief appraisal (using JBI instruments) – note major strengths/limitations
Notes / Reviewer comments	Any additional observations, discrepancies, or contextual remarks

Source: Authors.

Data analysis and synthesis

Prior to full analysis, we will pilot our data-presentation methods on a subset of five studies to refine our mapping approach. All identified competencies will be grouped into the conceptual domains of knowledge, skills, and attitudes, then aligned with established educational frameworks such as Benner's Novice-to-Expert model (Benner, 1984) and Miller's Pyramid of Clinical Competence (Miller, 1990). We will quantify how often each competency appears across studies, designating those reported in five or more publications as core competencies. Contextual variations will be explored through subgroup analyses by clinical setting (hospital, community, and simulation) and results will be displayed in structured tables that cross-tabulate competencies by domain and context.

To visually convey patterns of prevalence, we will develop conceptual diagrams that illustrate the relationship between competency domains and learners' developmental stages. A continuous narrative synthesis will accompany these tabulated and graphical presentations, detailing how the findings address the review questions and support our PCC framework, and highlighting implications for supervisor training and potential curriculum design.

3. Results and Discussion

The findings will be presented both as a narrative synthesis and in tabular format, summarizing all relevant data. The tables will include the authors' surname and year of publication, objective, study methods & participants (N), definition of competencies, competencies (knowledge, skills, and attitudes of clinical supervisor, student training, context, results and main conclusions. Applying the strategy described in Methods, core clinical-supervisor competencies will be identified across all included studies, with those appearing in at least five publications designated as core. A frequency analysis will quantify the prevalence of each competency, which will then be mapped to the domains of knowledge, skills, and attitudes and aligned with Miller's Pyramid and Benner's Novice-to-Expert model to illustrate anticipated developmental progression. Subgroup analyses will compare competency emphasis across settings (hospital, community, and simulation), highlighting context-specific patterns. Furthermore, we will assess how methodological quality (using the JBI Critical Appraisal Tools) influences the range of competencies reported, enabling discussion of potential biases and implications for interpreting supervisory practice.

4. Conclusion

With the detailed mapping of the competencies of clinical supervisor nurses, this study will serve as a guide for future research and underscore the critical importance of clinical supervision in both the education of nursing students and the ongoing professional development of nurses.

Conflicts of Interest/Funding: PP, IM, IME, MM, MRS and RP declare no conflicts of interest or external funding. All the authors take responsibility for the integrity of the data and their interpretation

References

- AlMekki, M., Qatouni, F., Al Amoor, H., Alayed, B., & El Najm, M. (2020). Clinical teaching effectiveness of undergraduate student nurses in the United Arab Emirates. *SAGE Open Nursing*, 6, Article 2377960820948640. <https://doi.org/10.1177/2377960820948640>
- Aviz, A. L. M., Pereira, M. C. A. S., & Simões, J. F. F. (2022). Supervisão em ensino clínico de enfermagem: Vivências significativas dos enfermeiros supervisores. *Research, Society and Development*, 11(10), 1–8. <https://doi.org/10.33448/rsd-v11i10.32295>
- Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Addison-Wesley.
- Beiranvand, S., Kermanshahi, M. K. S., & Memarian, R. (2021). Nursing instructors' clinical education competencies: An integrated review. *Journal of the Pakistan Medical Association*, 71(5), 1458–1466. <https://doi.org/10.47391/JPMA.89>
- Brammer, J. D. (2008). RN as gatekeeper: Gatekeeping as monitoring and supervision. *Journal of Clinical Nursing*, 17(14), 1868–1876. <https://doi.org/10.1111/j.1365-2702.2008.02376.x>
- Buanz, S. F., Alsenayien, A. Y., Altharman, H. A., Alnaqi, R. I., Llaguno, M. B. B., Mousa, O., & Siraj, R. A. (2024). Nursing students, faculty, and preceptors' perception of effective characteristics of clinical instructor: A cross-sectional study. *SAGE Open Nursing*, Article e0305789. <https://doi.org/10.1177/2377960824129842>
- Cunha, C., Macedo, A., & Vieira, I. (2017). Nursing students' perceptions of training processes in clinical supervision contexts. *Revista de Enfermagem Referência*, IV(12), 65–74. <https://doi.org/10.12707/RIV16072>
- Department of Health. (1993). *A vision for the future: The nursing, midwifery and health visiting contribution to health and health care*. Stationery Office.
- Directive 2005/36/EC of the European Parliament and of the Council. (2005). *Recognition of professional qualifications*. Official Journal of the European Union. <http://data.europa.eu/eli/dir/2005/36/2024-06-20>
- Heydarikhayat, N., Ghanbarzehi, N., & Sabagh, K. (2024). Strategies to prevent medical errors by nursing interns: A qualitative content analysis. *BMC Nursing*, 23(1), 48. <https://doi.org/10.1186/s12912-024-01726-1>
- Hobenu, K. A., Adefuye, A. O., Naab, F., & Nyoni, C. N. (2025). Strategies to enhance clinical teaching and learning in undergraduate nursing education: A scoping review. *PLOS ONE*, 20(6), e0305789. <https://doi.org/10.1371/journal.pone.0305789>
- Kuivila, H. M., Mikkonen, K., Sjögren, T., Koivula, M., Koskimäki, M., Männistö, M., Lukkarila, P., & Kääriäinen, M. (2020). Health science student teachers' perceptions of teacher competence: A qualitative study. *Nurse Education Today*, 84, 104210. <https://doi.org/10.1016/j.nedt.2019.104210>

- Miller, G. E. (1990). The assessment of clinical skills/competence/performance. *Academic Medicine*, 65(9 Suppl), S63–S67. <https://doi.org/10.1097/00001888-199009000-00045>
- Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan - a web and mobile app for systematic reviews. *Systematic Reviews*, 5(1), 210. <https://doi.org/10.1186/s13643-016-0384-4>
- Peters, M. D. J., Godfrey, C., McInerney, P., Munn, Z., Tricco, A. C., & Khalil, H. (2020a). Scoping reviews. In E. Aromataris & C. Lockwood (Eds.), *JBIM manual for evidence synthesis* (2024 ed.). <https://doi.org/10.46658/JBIMES-24-09>
- Peters, M. D. J., Godfrey, C., McInerney, P., Khalil, H., Larsen, P., Marnie, C., Pollok, D., Tricco, A. C., & Munn, Z. (2020b). Best practice guidance and reporting items for the development of scoping review protocols. *JBIM Evidence Synthesis*, 20(4), 953–968. <https://doi.org/10.1111/nbj.3702>
- Reid-Searl, K., Moxham, L., Walker, S., & Happell, B. (2008). Shifting supervision: Implications for safe administration of medication by nursing students. *Journal of Clinical Nursing*, 17(20), 2750–2757. <https://doi.org/10.1111/j.1365-2702.2008.02486.x>
- Suliman, M., & Warshawski, S. (2022). Nursing students' satisfaction with clinical placements: The contribution of role modeling, epistemic authority, and resilience - a cross-sectional study. *Nurse Education Today*, 115, 105404. <https://doi.org/10.1016/j.nedt.2022.105404>
- Tomas, N., & Fillipus, P. N. (2024). Perceptions of undergraduate nursing students regarding their competency in administering medications: A qualitative study. *Nurse Education in Practice*, 79, 104098. <https://doi.org/10.1016/j.nepr.2024.104098>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hemple, S., Akl, E., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M., ... Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(1), 467–473. <https://doi.org/10.7326/M18-0850>
- World Health Organization. (2016). *Nurse educator core competencies*. WHO Press.