

Review



MAPPING COMPETENCIES FOR SPECIALIST NURSES IN EUROPE: A SCOPING REVIEW PROTOCOL

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ABSTRACT

Background: Harmonizing specialist nursing competences across Europe has become increasingly important due to the growing reliance on specialist nurses, particularly in regions facing shortages of medical professionals. This reliance reflects a trend towards specialized care to address diverse and complex healthcare challenges. Aim will be to systematically map and synthesize existing literature and frameworks on specialist nurse competencies in Europe, while identifying gaps and opportunities for harmonization.

Methods: This scoping review follows the Joanna Briggs Institute methodology and is reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews guidelines, including the flow diagram.

Keywords: Competency mapping, specialist nurses, nursing competencies, advanced nursing practice, professional standards, Europe, European Union.

an increase in chronic disease prevalence, and the need for advanced therapeutic interventions. Specialist nurses are uniquely positioned to address these challenges, offering expertise in targeted areas of healthcare that require advanced training and a deep understanding of specific patient needs (1). Since the beginning of the 21st century, the roles, regulation, and competencies of specialist nurses (SNs) have been extensively described, but their implementation within the European Union (EU) has been left to Member States' own decisions, leading to a fragmented approach across the continent (2).

The diversity of educational systems and regulatory frameworks across European nations results in significant heterogeneity in the training paradigms and competency benchmarks for specialist nurses. Disparities in educational outcomes can lead to inconsistencies in clinical competencies, which are crucial for ensuring high standards of patient care and safety. Moreover, the lack of uniformity in qualifications recognized across borders significantly impedes the mobility of nursing professionals within the European Union. Consequently, there is an urgent need for the harmonization of professional development standards. Establishing a standardized framework would ensure that specialist nurses are uniformly equipped with the competencies necessary to meet the demands of contemporary healthcare, which is increasingly characterized by cross-border health challenges and

INTRODUCTION

The role of specialist nurses in the European healthcare landscape is pivotal, particularly as the region faces complex health challenges such as aging populations,

the integration of advanced medical technologies (3). Numerous studies provide concrete examples of fragmentation. For instance, a survey of 29 European countries revealed large variability in how specialist nurses are titled, educated, certified, and regulated, with wide differences in scope of practice (4). Nursing programmes differ in organisation (university-based vs residency vs mixed), entry requirements, regulation, and minimum competencies (5). Similarly, comparisons of Bachelor nursing curricula across 15 countries have identified both 3- and 4-year programmes, disparate allocations of clinical vs theoretical training, and divergence in practical experience requirements (6).

Furthermore, the European Union's healthcare policy rigorously underscores the imperative of high-quality care alongside the free movement of healthcare professionals within its borders, framing these elements as cornerstone objectives within the broader European health strategy. Such alignment is paramount not only for enhancing the efficacy of healthcare delivery but also for facilitating the seamless exchange and deployment of nursing professionals across the EU, thereby maximizing resource utilization, and addressing regional disparities in healthcare provision. Addressing the existing inconsistencies in educational standards and competencies is crucial for advancing the EU's strategic goals of developing sustainable, accessible, and equitable healthcare systems throughout the continent (7). This strategic alignment would potentially catalyse improvements in patient outcomes and system efficiencies by ensuring a uniformly competent nursing workforce that is well-prepared to navigate the complexities of modern healthcare environments and contribute effectively to the transnational healthcare agenda (8,9).

The need to harmonize specialist nursing competences across Europe has grown as healthcare systems increasingly rely on specialist nurses to fill critical gaps, particularly in underserved regions with severe shortages of medical professionals. This growing reliance reflects a broader trend towards specialized care as a response to the diverse and complex healthcare challenges presented by modern societies. By promoting a unified and coherent educational framework with the goal of achieving specialist competence, primarily general and then linked to individual subjects the European Union can ensure that its nursing workforce is adequately prepared with the necessary skills and knowledge to respond effectively to these evolving healthcare demands (9).

The scoping review methodology is chosen for its ability to thoroughly explore the mapping competencies for specialist nurses in Europe. A preliminary search of MEDLINE, PROSPERO and the Open Science Framework was conducted and no current or underway systematic reviews or scoping reviews on the topic were identified. This topic is crucial because it ensures the harmonization of competencies for specialist nurses across Europe, promoting mobility and consistency in the quality of care.

It also addresses the evolving healthcare needs of diverse populations by equipping nurses with standardized, advanced skills to meet complex clinical demands effectively. Therefore, this scoping review aims to systematically explore and synthesize existing literature and frameworks on the competencies of specialist nurses in Europe.

The specific objectives are:

- To identify and categorize the competencies required for specialist nursing roles across European countries.
- To identify gaps and opportunities for harmonization.
- To examine the alignment (or misalignment) between competencies within the context of EU healthcare priorities and policies.

Review question

What are the competencies currently in place for specialist nurses across Europe?

INCLUSION CRITERIA

Participants

The target group will encompass studies or documents that focus on specialist nurses, defined as those who have undergone advanced training or education in a specific area of nursing practice. It will also include materials addressing the perspectives of educators, policymakers, and healthcare organizations involved in developing or implementing nursing education and competency frameworks.

Concept

The review will include studies that explore or analyse the competencies required for specialist nursing roles, as well as the educational models, pathways, and frameworks used for their training. This will include frameworks describing core skills, knowledge, and attitudes expected of specialist nurses and the structure or content of their educational programs.

Context

The context will focus on European countries, encompassing studies and frameworks relevant to the healthcare systems, regulatory bodies, and educational institutions within Europe. It will also consider documents that discuss transnational or EU-level initiatives aimed at harmonizing nursing education and competencies across borders.

Types of Sources

The scoping review will encompass a comprehensive examination of several study designs, encompassing quantitative, qualitative, and mixed-method research. We will also include secondary sources such as meta-analyses and systematic literature reviews. Grey literature will encompass government reports, professional organization guidelines, white papers, and documents from EU institutions or regulatory bodies. Additionally, educational frameworks, curriculum outlines, and competency standards from national or international nursing organizations will be included to provide a comprehensive understanding of the topic. Resources without full-text availability will be excluded.

METHODS

The scoping review that is being suggested will adhere to the JBI approach for conducting scoping reviews and presented using the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping reviews (PRISMA-ScR) flow diagram, as outlined in the PRISMA-ScR statement.

SEARCH STRATEGY

An initial search was conducted in one database to identify keywords and index terms. Based on this, a strategy was formulated for searching in other databases. CINAHL Ultimate, MEDLINE, PsycArticles (EBSCO), Web of Science, PubMed, and the Cochrane Library will be searched. Additionally, grey literature will be explored in The ProQuest Dissertations & Theses Database and Google Scholar. For the Google Scholar search, we will begin by navigating to the Google Scholar website and using a private browsing mode or clearing cookies and cache before starting the search to minimize personalized results. We will verify that the language is configured to English or the appropriate language for our study, and if feasible, we will modify location settings to mitigate any potential bias related to location. The search will be performed by inputting the formulated search queries into Google Scholar and examining the initial batch of outcomes to verify their relevancy. We will evaluate the initial 200 outcomes, which is roughly equivalent to the first 20 pages, for their relevance by considering the title and abstract. During this process, we will maintain a log of the quantity of pertinent articles discovered and any modifications made to the search technique. To effectively handle the extensive quantity of information and optimize productivity, we shall enforce halting rules. More precisely, our search will cease once we have examined 200 results, provided that no additional pertinent articles have been discovered in the most recent 50 results. To mitigate the impact of location bias, we will employ a VPN, if available,

to visit Google Scholar from a neutral location. This will allow us to effectively manage localization, cookies, and cached information. Prior to searching, we will delete browser cookies and cache to limit tailored search results. Additionally, we will perform the searches in a private browsing mode (incognito mode) to reduce the impact of previously stored information on the search results. All published and unpublished studies written in English will be considered for inclusion, regardless of publication date.

The search technique will be customized for each database and/or information source, considering all relevant keywords and index terms. The reference list containing all the sources of information included in the study will undergo a screening process to identify any more relevant studies.

A search string was created using keywords in English and their synonyms and Boolean operators. The final search string for each database can be seen in Table 1.

STUDY/SOURCE OF EVIDENCE SELECTION

The citations of relevant studies will be imported into a reference management software EndNote to remove duplicates. The titles and abstracts will be evaluated by two independent reviewers to determine their compliance with the inclusion criteria established for the review. Rayyan will be utilized to accelerate the initial evaluation of abstracts and titles by implementing a semi-automated procedure that emphasizes usability. Two reviewers will thoroughly evaluate the complete text of selected citations based on the inclusion criteria. The scoping review will document and describe the rationale for excluding sources of evidence from the complete text if they fail to fulfil the predetermined inclusion criteria. Any conflicts among the reviewers at each phase of the selection process will be handled by deliberation or involving an extra reviewer or reviewers. The comprehensive findings of the search and selection of the studies for inclusion will be fully documented in the final scoping review.

DATA EXTRACTION

Two independent reviewers will independently extract data using a data extraction instrument. In this review, data on the following variables will be extracted from the included studies:

- author(s)
- year of publication
- origin/country of origin (where the source was published or conducted)
- aims/purpose
- methodology/methods
- competency framework

- outcomes and details of these
- key findings that relate to the scoping review question
- relevance to EU Healthcare Priorities.

The data extraction tool will be adapted as needed, based on the nature of the included studies. Any discrepancies in extracted data will be resolved through discussion or with a third reviewer if necessary.

The data extraction tool for the draft will undergo modifications and revisions as deemed necessary during the process of obtaining data from each evidence source that is included. If deemed suitable, the authors of the papers will be contacted to solicit any missing or supplementary data that may be necessary.

DATA ANALYSIS AND PRESENTATION

The findings will be condensed and showcased according to the primary categories of the data extraction templates, organized in a manner that directly addresses the objectives of the review. The study findings will be presented in the form of a narrative summary (7). Other styles of data presentation of study findings such as using tables, figures, and word clouds will be considered.

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