

# INPLASY

## A Global Overview Of Regulations And Credentials OF Advanced Practice Nurse: A Scoping Review

INPLASY202440056

doi: 10.37766/inplasy2024.4.0056

Received: 13 April 2024

Published: 13feef April 2024

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### ADMINISTRATIVE INFORMATION

**Support -** No.

**Review Stage at time of this submission -** Piloting of the study selection process.

**Conflicts of interest -** None declared.

**INPLASY registration number:** INPLASY202440056

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 April 2024 and was last updated on 13 April 2024.

### INTRODUCTION

**Review question / Objective** What are the global perspectives on regulation, and credentialing roles in advanced practice nursing?

**Background** The Advanced Practice Nurse (APN)s role encompasses a broader and more extensive range of these attributes, which are further developed through clinical experience, additional education, and attainment of a master's degree or higher (Carter, 2010, Schober et al., 2020). Despite this broadening of scope and deepening of practice, the essence of the APN role remains rooted in nursing and nursing principles. This foundation underscores the importance of maintaining a patient-centered approach, holistic care, and adherence to ethical standards inherent in the nursing profession through regulation and

credentials (Bryant-Lukosius and Wong, 2019). While APNs possess a higher degree of expertise and autonomy compared to generalist nurses, their practice is grounded in nursing values and principles, ensuring continuity with the profession's overarching goals of promoting health, preventing illness, and providing compassionate care to individuals, families, and communities. Therefore, this study aimed to provide a comprehensive overview of the global overview of Advanced Practice Nurses (APNs), including nurse practitioners and clinical nurse specialists, focusing specifically on the scope of regulation and credentials climate. This would involve examining how APN roles are regulated in different countries, the requirements for obtaining credentials as an APN, and the overall climate surrounding APN practice in terms of acceptance, support, and recognition within healthcare systems (Wheeler et al., 2022). By understanding

these factors on a global scale, policymakers, healthcare organizations, and APN advocates can work towards improving regulatory frameworks, standardizing credentialing processes, and fostering environments conducive to the growth and effectiveness of APN roles worldwide. The study aimed to provide a comprehensive overview of the global overview of Advanced Practice Nurses (APNs), including nurse practitioners and clinical nurse specialists, focusing specifically on the scope of regulation and credentials climate. This would involve examining how APN roles are regulated in different countries, the requirements for obtaining credentials as an APN, and the overall climate surrounding APN practice in terms of acceptance, support, and recognition within healthcare systems (Wheeler et al., 2022). By understanding these factors on a global scale, policymakers, healthcare organizations, and APN advocates can work towards improving regulatory frameworks, standardizing credentialing processes, and fostering environments conducive to the growth and effectiveness of APN roles worldwide.

**Rationale** It is fascinating to see the distinction between Nurse Practitioners (NPs) and Clinical Nurse Specialists (CNSs) in their roles and responsibilities (Schober et al., 2020). NPs typically engage in various activities, including assessment, diagnosis, ordering and interpreting laboratory tests, and prescribing medications, often within a collaborative framework with other healthcare providers (Heale and Rieck Buckley, 2015). On the other hand, CNSs tend to focus more on healthcare administration, providing consultation, and offering guidance to nursing staff and systems involved in managing complex patient care (Dlamini et al., 2020). The statistics show that around 40 countries have well-established Advanced Practice Nurse (APN) roles, highlighting the global recognition of the importance of these roles in healthcare delivery (Seibert and Manole, 2021, Wheeler et al., 2022). Interestingly, the numbers of APNs can vary significantly between countries, reflecting differences in healthcare systems, regulations, and the overall integration of APNs into the healthcare workforce. This diversity in APN implementation provides a rich landscape for studying best practices and identifying areas for improvement to enhance the contribution of APNs to healthcare worldwide.

Advanced Practice Registered Nurse (APRN) Regulation, established in 2008 in the United States, aimed to standardize the regulation of APRNs across the nation. One of its key objectives, in addition to codifying the titles of the four main APRN disciplines (Certified Nurse

Practitioner, Clinical Nurse Specialist, Certified Nurse Midwife, and Certified Registered Nurse Anesthetist), was to ensure consistency in licensure, accreditation, certification, and regulation of APRNs throughout the country (Lusk et al., 2019, Wheeler et al., 2022). A significant development in APN regulation in the US, the concept of advanced practice nursing roles has existed in some form for over a century. However, there was no unified regulation framework to govern these roles at a national level. Global efforts to define APN roles were also underway. For instance, in 2020, the International Council of Nurses (ICN) provided a guideline for advanced practice nursing for Nurse Practitioners (NPs) and Advanced Practice Nurses (APNs). By establishing clear definitions and common terminology, this guidance paper helps promote consistency and coherence in the understanding and implementation of APN roles across different healthcare settings and geographic regions (Schober et al., 2020). This shared understanding is crucial for advancing the professional recognition and integration of APNs into healthcare systems worldwide. However, still lack of regulations standards and credential system.

## METHODS

**Strategy of data synthesis** Search term include; Advanced Practice Nursing or (advanced practice nurs\* or advanced practice registered nurs\*) AND (nurs\* specialist\* or nurs\* practitioner\* or nurs\* anesthetist\* or nurs\* midwife\* or nurs\* midwives or nurs\* clinician\* or nurs\* prescriber\*) AND (regulation\* adj5 (profession\* or nurs\*) AND (governance or oversight or statute\* or ordinance or credential\* or accreditation\* or certification\* or licens\*) AND Credentialing AND Accreditation AND Certification AND Licensure, Nursing AND Government Regulation. In each database, we used three controlled vocabularies from MeSH, Emtree, and CINAHL heading with English synonyms. The search of literature published until April 01, 2024. The second phase of this review involved exploring grey literature through Google Scholar, followed by the third phase, which entailed a manual search of the reference lists within the identified studies and relevant reviews.

**Eligibility criteria** The articles included in this scoping review; The definition of an Advanced Nurse Practitioner was derived from the comprehensive definition provided by the ICN in 2020. According to this definition, an Advanced Practice Nurse/Nurse Practitioner is a registered nurse who has acquired an extensive knowledge base, sophisticated decision-making abilities, and

clinical competencies for expanded practice, with the specific characteristics influenced by the context and/or country in which they are credentialed to practice. However, while this consensus definition provides a broad understanding, it lacks precision concerning the day-to-day function and scope of practice of the nurse practitioner. To address this gap, we developed an operational definition based on guidelines from the ICN, ICN Nurse Practitioner/Advanced Nurse Practitioner guidelines, and the American Association of Nurse Practitioners. Subsequently, this operational definition underwent validation by each co-author representing Canada, the USA, Sri Lanka/Taiwan, and Tanzania. The article describes the credentialing process and regulatory practices based on regulations established by the ICN. It outlines the steps and requirements for obtaining credentials as an ANP or NP, aligning with ICN guidelines. The credentialing process may include educational qualifications, clinical experience, specialized training, and certification exams. These requirements ensure that ANPs and NPs have acquired the necessary knowledge, skills, and competencies for expanded practice in their respective roles. Also, the article may discuss regulatory practices governing the scope of practice for ANPs and NPs, which are informed by ICN regulations. These practices outline the specific responsibilities, duties, and limitations of ANPs and NPs within the healthcare system, ensuring safe and effective patient care. We included quantitative and qualitative literature, while quantitative studies may have provided statistical data and empirical evidence regarding credentialing, such as the number of APNs seeking credentials, the types of credentials obtained, and the factors influencing successful credentialing outcomes. These studies could have employed survey methodologies, retrospective analyses, or quantitative assessments of credentialing procedures. On the other hand, qualitative research may have offered in-depth insights into the experiences, perceptions, and challenges encountered by APNs during the credentialing process. Qualitative studies have employed interviews, focus groups, or thematic analysis to explore APNs' perspectives on regulatory practices, barriers to credentialing, and the impact of regulatory frameworks on their practice. These studies excluded registered nurses' regulation and credentials or other healthcare workers' overall credentials, including APN as a category of studies, thesis reports, and studies not published in English.

### Source of evidence screening and selection

This scoping review was performed using the following databases: ERIC, Embase, Medline, CENTRAL in Cochran, CINAHL-EBSCOHOST, SCOPUS and Web of Science. During the compilation of the database search, all retrieved articles were imported into The EndNote 20 database to identify and remove duplicate entries. Screening of titles, abstracts, and full-text reviews was carried out using Covidence systematic review software ([www.covidence.org](http://www.covidence.org)). Two researchers (SPKM, SDM) independently evaluated the full-text articles against the eligibility criteria. In cases where there was uncertainty regarding whether the content or context involved populations incorporating APN regulations and credentials, a third researcher was consulted for additional insight and further searches were conducted for clarification (e.g., exploring peer-reviewed articles on intervention developer websites). The researchers reached moderate agreement in their initial assessments ( $k=0.40$ ). Subsequently, they agreed on the final selection of included papers with input from three other research team members (SPKM, PC, and JT). For studies with unclear reporting or incomplete findings, we contact the original authors via email to request clarification.

**Data management** Data extraction followed the methodological format recommended by the Joanna Briggs Institute (JBI) (Munn et al., 2020; Peters et al., 2020). The study conceptualization and research protocol development were undertaken by two researchers (SPKM and PC). Detailed variables were formulated, and data extraction from full-text reviews was conducted by JT and SDM, aligning with the relevant study characteristics. Each article underwent independent data extraction by two researchers, with any discrepancies resolved through discussion with the remaining two researchers. The extracted data were inputted into a standardized Excel sheet using Covidence software.

**Reporting results / Analysis of the evidence** The results were reported in a structured narrative synthesis. The Regulations and Credentials of APNs were grouped thematically. The following variables were listed: Authors, year, country, study setting, study design, regulations and credentials within countries, regions, or worldwide. Based on our results, we will develop a strategic model for global credentials and rules.

**Presentation of the results** We plan to create tables and figures to present our final results. The tables will organize the extracted data into a clear

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and concise format, allowing readers to understand and compare the findings easily. Figures will be used to visually represent key trends, patterns, or relationships identified in the data.

Author 4 - Patrick Chiu - Conceptualization, methodology, and data extraction, drafted the manuscript, provided feedback and approved the final manuscript.  
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**Language restriction** Article published in English.

**Country(ies) involved** Sri Lanka, Taiwan, Canada, Tanzania, USA.

**Keywords** Advance practice nurse, Nurse Practitioner, Regulations, Credentials.

**Dissemination plans** We intend to prepare manuscripts for submission to respected peer-reviewed journals, such as the International Journal of Nursing Studies or the Journal of Nurse Practitioners. These manuscripts will detail our research findings, methodologies, and implications for the field of Advanced Practice Nursing (APN). By publishing in these journals, we aim to contribute to the existing body of knowledge and inform future research and practice in APNs.

Additionally, we plan to share our research outcomes with the International Council of Nurses (ICN) to support the further development of policies and protocols for APNs on an international scale. By providing these, we hope to assist in shaping the regulatory frameworks and standards that govern APN practice worldwide.

Furthermore, we aim to present our findings at international conferences on Nurse Practitioners (NPs) and Advanced Practice Nurses (APNs). Participation in these conferences will allow us to engage with fellow researchers, practitioners, and policymakers, fostering collaboration and knowledge exchange within the APN community. Additionally, presenting our research at these conferences will provide an opportunity to receive feedback, disseminate our findings, and contribute to ongoing discussions in the field.

#### **Contributions of each author**

Author 1 - Sriyani padmalatha Konara Mudiyansele - Conceptualization, methodology, and data extraction, drafted the manuscript, provided feedback and approved the final manuscript.

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Author 2 - Sujeewa Dilhani Maithreepala - Methodology, search strategy, screening and data extraction and drafted the manuscript.

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Author 3 - Joseph Trinitas - The author contributed to the development of the selection criteria, search strategy, screening and data extraction.

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