

# Integrative Review

## Advanced practice nursing: a concept analysis

Prática Avançada de Enfermagem: uma análise conceitual

Práctica avanzada de enfermería: un análisis conceptual

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### Abstract

**Objective:** Was to analyze the concept of advanced practice nursing and elucidate the essential elements: attributes, antecedents and consequences.

**Methods:** The methodological reference for the study was the Walker and Avant (2011) concept analysis model, structured by an integrative review of the literature conducted in May and June, 2017. The Scopus, PubMed, CINAHL, Web of Science, Science Direct, Cochrane and Lilacs databases were searched for studies that addressed the term and that were published in Portuguese, English or Spanish.

**Results:** The sample consisted of 33 studies conducted in eight countries and dated from 2000 to 2016, with 56% published in the five-year period of 2011-2016. Eight attributes were identified: Educational preparation at the master's or doctoral level, and specialization in clinical area; Evidence-based practice; Ability to exercise judgement and critical thinking; High level of autonomy; Advanced and comprehensive assessment; Leadership; Capacity for diagnosis, management and administration; and Teaching other nurses. The antecedents and consequences were identified, and a definition of the concept was constructed.

**Conclusion:** Considering that the idea of advanced nursing is expanding worldwide, especially in Latin America, other studies related to Advanced Nursing Practice are recommended. An in-depth understanding of the implementation practice issues in Brazil is necessary, to aide in determining the forthcoming APN concept for the country. This study contributes to that understanding by defining the concept of APN, including its antecedents, attributes, and consequences.

### Resumo

**Objetivo:** Analisar o conceito de Prática Avançada de Enfermagem e elucidar os elementos-chave: atributos, antecedentes e consequências.

**Métodos:** O referencial metodológico para o estudo foi o modelo de análise conceitual de Walker e Avant (2011), estruturado mediante uma revisão integrativa da literatura conduzida nos meses de maio e junho de 2017. A busca foi realizada nas bases de dados Scopus, PubMed, CINAHL, Web of Science, Science Direct, Cochrane e Lilacs, considerando estudos que trataram do termo e que foram publicados em português, inglês ou espanhol.

**Resultados:** A amostra foi composta por 33 estudos conduzidos em oito países entre os anos 2000 e 2016, sendo 56% publicado no quinquênio 2011-2016. Foram identificados oito atributos: Preparação educacional em nível de mestrado ou doutorado, e especialização em área clínica; Prática baseada em evidências; Habilidade de desenvolver raciocínio clínico e pensamento crítico; Alto nível de autonomia; Avaliação avançada e ampla; Liderança; Capacidades diagnóstica, gerencial e administrativa; Promoção do ensino às outras enfermeiras. Foram identificados os antecedentes e consequências e foi desenvolvida uma definição do conceito.

**Conclusão:** Diante da expansão da ideia de enfermagem avançada pelo mundo, particularmente na América Latina, recomendam-se outros estudos relacionados à Prática Avançada de Enfermagem. É necessária uma compreensão aprofundada das questões na prática de implementação no Brasil para ajudar a determinar o conceito futuro de PAE para o país. Este estudo contribui a essa compreensão ao definir o conceito de PAE com seus antecedentes, atributos e consequências.

### Resumen

**Objetivo:** analizar el concepto de práctica avanzada de enfermería.

**Método:** La referencia metodológica para el estudio fue el modelo de análisis conceptual de Walker y Avant (2011), estructurado por una revisión integrativa de literatura realizada en mayo y junio de 2017. Se efectuaron búsquedas en las bases Scopus, PubMed, CINAHL, Web of Science, Science Direct, Cochrane y Lilacs, buscando estudios que abordaran el término, publicados en portugués, inglés o español.

**Resultados:** La muestra consistió en 33 estudios realizados en ocho países y datados entre 2000 y 2016, con un 56% publicado en el quinquenio 2011-2016. Se identificaron ocho atributos: Preparación educativa a nivel de maestría o doctorado y especialización en el área clínica; Práctica basada en la evidencia; Capacidad para aplicar juicio y pensamiento crítico; Alto nivel de autonomía; Evaluación avanzada e integral; Liderazgo; Capacidad de diagnóstico, gestión y administración; y Enseñanza a otras enfermeras. Se identificaron antecedentes y consecuencias, y se construyó una definición del concepto.

**Conclusión:** Considerando que la noción de enfermería avanzada está expandiéndose a nivel mundial, especialmente en América Latina, se recomiendan nuevos estudios relacionados a la Práctica Avanzada de Enfermería. Es necesario comprender a fondo las cuestiones relativas a la práctica de su aplicación en Brasil para permitir determinar el concepto de la futura red de protección de la PAE en el país. Este estudio contribuye a esa comprensión al definir el concepto de PAE, incluyendo sus antecedentes, atributos y consecuencias.

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## Introduction

The Pan American Health Organization (PAHO) and the World Health Organization (WHO) officially address the mandate for Universal Health Coverage when they recommend increasing the pool of advanced practice nurses to develop a skillful health care practice able to respond to population health needs.<sup>(1)</sup> This directive is in keeping with the strategic plan of the International Council of Nurses (ICN) and its four goals for the development of the profession. Improvement of health coverage to populations by providing leadership and strategic support to nurses in implementing Advanced Nursing Practice around the world is one of these goals.<sup>(2)</sup> To this end, PAHO proposes strategies that broaden professional nursing practice and allow the best use of advanced nursing skills in health services. It recommends strategic measures such as implementing educational programs to prepare nurses in the advanced practice role and designating key functions in primary healthcare services for these professionals.<sup>(1)</sup>

The ICN defines the advanced practice nurse as “a nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A master’s degree is recommended for entry level.” In addition, the organization delineates some conditions that are necessary for Advanced Nursing Practice (ANP) to occur in health services. These are: educational preparation at an advanced level for formal recognition; a role function that integrates research, education, practice and management; a high degree of professional autonomy; advanced assessment, and diagnostic and decision skills; certification or accreditation; and its own legislation.<sup>(2)</sup>

However, ANP as a care model presents difficulties in its implementation because of various obstacles. These include different educational levels of professional nurses, economic factors, and restrictive practice policies advocated by the medical profession. Public policies that assure legal support of the practice and promote autonomy are need-

ed for evidence-based practice to take place and for the integration of research, theory and practice in holistic and directed care in the advanced practice perspective.<sup>(3)</sup>

Studies also indicate an expressive difficulty in understanding advanced practice nursing, as a specific type of care, because it embraces various roles with a wide and growing variety of actions, requirements and outcomes.<sup>(4,5)</sup>

Furthermore, there is confusion about the terminology that addresses the practice.<sup>(4,6)</sup> The use of the term Advanced Practice Nursing (APN) interchangeably with other similar concepts such as Advanced Nursing Practice and Advanced Practice Nurse adds to the problem of diverse roles and may represent another barrier to its implementation, especially in non-English speaking countries.

The purpose of this study was to clarify the concept of Advanced Practice Nursing, with the intent to enhance knowledge of its characteristics that may aid in its implementation and evaluation.

Thus, the objective of the study was to analyze the concept of advanced practice nursing and elucidate the essential elements: attributes, antecedents and consequences. In reviewing the literature for similar studies, two articles were identified. These studies aimed to clarify the concept of advanced nursing practice through concept analysis, using different methods. The authors also point out the existing confusion of terms, roles and nomenclatures for this practice. The studies indicated the need for consistency in determining the scope of practice and the definitions of the concept. While these studies contribute to the understanding of the concept, further analyses are important because of the dynamicity of a concept and the increase of scientific production.<sup>(6-8)</sup>

## Methods

The concept analysis model proposed by Walker and Avant (2011)<sup>(6)</sup> was the methodological reference for the study. In attendance to the purpose of the study, five of the eight stages that comprise the model were addressed in this analysis: selection of

the concept; determination of the purposes of the conceptual analysis; identification of the use of the concept; identification of the attributes that define the concept; and identification of the antecedents and consequences of the concept.<sup>(6)</sup>

It is important to clarify that steps five and six of the analysis model, that refer to the construction of a model case and others, are recommended for the purpose of emphasizing and / or elucidating the attributes of the concept.<sup>(6)</sup> These steps were not conducted in this analysis because the mode of study selected, a systematic review of the literature, was considered adequate in elucidating the attributes. Step eight identifies the empirical referents of the attributes that can be used in their measurement. This step was also not included because the study did not seek to establish measurement criteria for the concept. The exclusion of these steps does not imply in losses in the result of this conceptual analysis.

Having selected the concept of Advanced Practice, a wide-ranging integrative literature review<sup>(9)</sup> conducted to implement the other steps that focus on the identification of the uses, attributes, antecedents and consequences of the concept. The review steps were: determining the research question (s); search of the literature; evaluation of data; analysis of the results and presentation.

The research question(s) for the review were: What is the concept of advanced practice nursing? What are the characteristics of advanced practice nursing? What are the antecedent conditions and the consequences of advanced practice nursing? A study protocol to organize the review data was constructed that included: the objective of the search, guiding questions, selected data bases, and search strategies; the inclusion and exclusion criteria; the strategy for critical evaluation of the articles based on the pyramid of scientific evidence; and the instrument for data extraction. The relevant information extracted from the articles was registered in a worksheet form. Seven online databases were searched during the months of May and June, 2017. They were: Scopus, PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, Science Direct, Cochrane and Lilacs.

The search terms derived from the Medical Subject Headings of U.S (MeSH) and the Health Sciences Descriptors (DeCS) and translated into Portuguese, English and Spanish were: *Prática Avançada de Enfermagem*; *Advanced Practice Nursing*; *Enfermería de Práctica Avanzada*; *Enfermagem Baseada em Evidências*; *Evidence-Based Nursing*; *Enfermería Basada en la Evidencia*; *Prática Clínica Baseada em Evidência*; *Evidence-Based Clinical Practice*; *Práctica Clínica Basada en la Evidencia*.

The combination search strategies using the AND Boolean performed in all the selected databases, except in the Lilacs database, were: *Advanced Practice Nursing AND Evidence-Based Nursing*; *Advanced Practice Nursing AND Evidence-Based Clinical Practice*. In the Lilacs database it was only possible to use a descriptor for the lack of articles from the use of the strategies used in the other databases, it was used: *Advanced Practice Nursing*.

The inclusion criteria were: complete articles published in the selected databases that addressed advanced practice nursing and that they be written in Portuguese, English or Spanish. Articles that did not answer the guiding questions of this study, articles not available electronically in their full version, editorial-type publications, letters to the editor, abstracts, reviews and experts' opinion texts were excluded.

The search was performed by a pair of researchers, individually, on the same day and time. A total of 1,907 titles were identified in the databases. After reading the titles, 157 articles were selected, listed and saved in a Word document. Of these, 52 articles were excluded due to repetition. The abstracts of the resulting 105 articles were read and examined for indication that reading of the entire article would be necessary. A total of 57 articles were selected for further examination. After careful reading of the full texts, a sample of 33 articles was obtained.

## Results

Among the seven different countries where the studies were conducted, the United States of America (USA)

and Canada stand out with 54.5% and 15.2% of the publications, respectively. The studies were published in the period of 2000 to 2016, with 56.2% of these from 2011 to 2016, indicating recent interest on the subject. Regarding the databases where the studies were located, 42,6% as shown in table 1.

**Table 1.** Distribution of studies according to country, year of publication and database

Variable	Frequency(%)
<b>Country of the study</b>	
United States	18(54.5)
Canada	5(15.2)
United Kingdom	4(12.2)
Norway	2(6.1)
Finland	1(3.0)
China	1(3.0)
Switzerland	1(3.0)
Ireland	1(3.0)
Total	33(100)
<b>Year of publication</b>	
2016	2(6.1)
2015	4(12.1)
2014	5(15.1)
2013	1(3.0)
2012	3(9.1)
2011	4(12.1)
2010	2(6.1)
2009	2(6.1)
2008	1(3.0)
2007	3(9.1)
2006	2(6.1)
2003	1(3.0)
2001	1(3.0)
2000	2(6.1)
Total	33(100)
<b>Database</b>	
Science Direct	13(39.4)
Scopus	9(27.3)
Pubmed	6(18.1)
Cinahl	2(6.1)
Web of Science	2(6.1)
Lilacs	1(3.0)
Total	33(100)

According to table 2, all the articles were published in English regardless of the country where they were conducted. The studies were mostly descriptive (56.2%) and exploratory (43.7%), and used qualitative research methods (96,8%).

The attributes, antecedents, consequences and the definition of the concept Advanced Nursing Practice as determined by the analysis of the 33 articles are explained in the following sections. The synthesis of the concept analysis results is described in chart 1.<sup>(3,6,10-27)</sup>

**Table 2.** Distribution of studies according to language, type of scientific journal, methodology used and type of approach

Variable	Frequency(%)
<b>Language</b>	
English	32(97.0)
Spanish	1(3.0)
Total	33(100)
<b>Methodology used</b>	
Descriptive	19(57.6)
Exploratory	14(42.4)
Total	33(100)
<b>Type of approach</b>	
Qualitative	32(97.0)
Quantitative	1(3.0)
Total	33(100)

**Chart 1.** Synthesis of the identified antecedents, attributes and consequences of Advanced Nursing Practice concept

Advanced Practice Nursing		
Antecedents	Attributes	Consequents
1.Training and recruitment of nursing human resources; 2.Changes in laws and political guidelines; 3.Changes and curricular improvements directed to the APN; 4.Changes in care delivery to patients.	1.Masters degree or PhD with specialization in clinical area; 2.Evidence-based practice; 3.Ability to develop clinical judgment and critical thinking; 4.High level of autonomy; 5.Advanced and wide-ranging assessment; 6. Leadership; 7.Capacity for diagnosis, management and administration; 8.Promote teaching to clinical nurses.	1.Creation of the Advanced Practice Nursing Committee (APNC); 2.Inclusion of subjects related to advanced practice nursing in graduate curricula; 3.Development of rules and regulations for advanced practice; 4.Improvement of professional status; 5.Professional self-confidence; 6.Improvement of professional status.

### Concept definition

The analysis of the information derived from the studies that described Advanced Practice Nursing in this review, resulted in the following conceptual definition: Advanced Practice Nursing is the specialized knowledge used by a registered professional nurse that is qualified to perform complex and advanced decision-making and clinical skills necessary for the implementation of the advanced practice role in healthcare, integrating theory, practice, teaching, research, leadership, and management.

### Discussion

The Advanced Practice Nursing concept is widely discussed worldwide as observed by the plethora of publications on the subject. Countries such as Canada and the United States have integrated the advanced practice nursing role into the health care



system and have generated evidence regarding the quality and safety of care provided by nurses in this role and of the positive health outcomes to this type of nursing. It is important to note, however, that readiness for implementing the role in Latin American is presently under discussion<sup>(1,28)</sup> and preparation of advanced practice nurses to attend to the existing health access disparities in these countries is recommended as a priority strategy for the region.<sup>(29)</sup>

Advanced practice nursing has mainly focused on primary health care of urban and rural populations.<sup>(26)</sup> The lack of medical doctors in countries such as the US, and the difficulties of the population in accessing health care were primary contributing factors to the development and growth of advanced practice nursing in the 1960s. Exerting advanced practice includes prescription drugs, a practice that requires professional competence and provides greater autonomy as it enables better provision of patient care and more time-efficient use, including spending on professional medical care, and resources. Although there is consensus of the benefits of advanced practice nursing, there are obstacles that limit the extent to which the role is implemented and its authority for practice. Medical efforts to contain the expansion of advanced practice nursing, primarily because prescription of medications and some treatments, actions commonly performed by medical doctors, figure among the nurse's competencies.<sup>(3,22)</sup> In this sense, there are also concerns about patient safety and quality of care.

Prescription of medications and treatment as a competence in advanced practice nursing is denoted worldwide as an important aspect to be discussed when implementing the role. There is little information, however, about action patterns of the APN nurse practitioners in this function, or on the legal authority to prescribe. The action is context dependent to the extent that the individual countries legal boundaries for nursing and the political force that the nurses may exert for needed legislation changes determine the application of this competency. In addition, there are different levels of knowledge that these nurses may present. Although prescription is one of the actions within the scope of practice of

the APN, authority for this competence may be difficult to achieve, thus affecting the nurse's performance in the health establishment.<sup>(3,11)</sup>

However, the basic curricular standards for advanced practice preparation that allow the consolidation of the course subjects and of the core curriculum for APN graduate education would standardize the procedures of APNs would clarify the nurses' actions with the health team and the community to provide professional direction.<sup>(30)</sup> In addition, legal support and professional training configure the prescription of medications by the nurse as a safe and resolute practice.

Advanced Practice Nursing role expansion arose, among other factors, from the need to improve: access to care and population health; health care provider capacity; cost-effectiveness of services; and quality and coordination of care.<sup>(14,31)</sup> This group of health care nurses have specialties with clinical skills and judgments that improve care delivery, resultant from their education and practice experiences.<sup>(31)</sup> In primary care, they perform advanced level tasks with quality and a high rate of satisfaction among patients.<sup>(16)</sup>

In Brazil, the discussion of advancing nursing practice continues to expand. However, for many researchers, it is still unclear what actions are to be related to Advanced Practice Nursing and what is necessary to become able and competent to perform them from the perspective of their legal regulation. This study results contribute to that understanding by defining the concept of APN, including its antecedents, attributes, and consequences.

Among the attributes identified in this study, educational preparation at the master's or doctoral level is an important characteristic of advanced nurses. This is because these courses require extensive preparation and experience. In addition, they demand greater commitment to the profession and allow the development of intellectual capacity, educational competencies, and evidence-based clinical skills.<sup>(12,13,26,27)</sup> Studies have shown that the acquisition of these high-level professional abilities is not common to all advanced practice nurses. Thus, it as a challenge for the AP nurse to execute these skills because it involves teaching and research.<sup>(24)</sup>

Research suggests that because there is a lack of a solid and informed understanding of the autonomous, independent actions of APNs when there is an absence of physician care, patients and families may experience feelings of insecurity with this care.<sup>(23)</sup> To address this potential obstacle, the results of a study evaluating the role of advanced practice nurses in Finland suggests the importance of clearly defining the role of APNs for the development of their sustainable and trusted practice.<sup>(32)</sup>

Regarding the perception of doctors and nurses about the introduction of the APN role, benefits for patient care and safety, such as the optimization of actions and evidence-based practice, and an increase in professional status were identified. Those factors help to improve the perception of other professionals and patients about the image of the APN.<sup>(23,33)</sup>

In view of the incorporation of strategic planning for coverage and universal access to health in the health systems of the countries supported by the Pan American Health Organization and the Human Resources for Health resolution that underscores the increase in the number of advanced practice nurses to provide support to health systems, this practice is recognized as of fundamental importance for reducing morbidity and mortality in primary health care.<sup>(29)</sup>

Therefore, for the implementation of this practice it is necessary that a modification occurs in order to promote a broader role of nursing, which requires political support, the direction of health services, health teams, nursing teachers and professionals themselves. In order to prioritize training and professionalization that meets the population demands and that guarantees a safe and quality care.<sup>(29)</sup>

## Conclusion

The study identified the essential characteristics of Advanced Practice Nursing and elucidated its meaning, thereby contributing to a better understanding of the aspects that identify this professional role, the preconditions to its occurrence, its outcomes and its implementation. Moreover, the results contribute to a better identification of the challenges for the in-

tegration of this role in the current Brazilian health care system. In order to contribute to the improvement of access to quality healthcare services and to the provision of care that meets the patients' needs. The study indicates that there is a demand for regulation and standardization of the graduate curricula to meet the requirements of preparing advanced practice nurses and to promote the potential benefits that the change in the nursing curriculum can offer. Establishing a unified force to exercise advanced practice with enough autonomy and independence in the execution of clinical assessments, diagnoses and prescriptive actions is a challenge that must be discussed. This will lead to the promotion of the development of new profiles of health professionals, with a special focus on nurses in order to improve the patient's health outcomes, the quality of care and the efficiency of the health system. Besides that, the advanced practice nurse can offer greater accessibility to the care of risk groups, people in rural or remote areas, high-risk populations in critical and specialized care units and better outcomes in managing care for people with chronic illnesses. Further investigations are recommended, especially in Brazil. New analyses of the concept of advanced practice nursing can be carried out with the understanding that the concept undergoes constant modifications and its ideas and words develop and evolve over time. A thorough understanding of this APN role and practice helps its integration into the health system and encourages professionals to seek more information.

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