



Perspectives for Advanced Practice Nursing in Brazil

Perspectivas para a Enfermagem de Prática Avançada no Brasil

Perspectivas para la Enfermería de Práctica Avanzada en Brasil

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ABSTRACT

This is a reflective study aiming to analyze the implementation of Advanced Practice Nursing (APN) and provide perspectives regarding the role of these professionals in the Region of the Americas, particularly in Brazil. Several countries in the world have introduced advanced nursing roles to improve quality of care and reduce health care costs. However, these roles have not been fully implemented in Latin American countries, although some countries have held advanced discussions about it and proposed graduated courses. Brazil fulfills all conditions necessary for the implementation of the education of advanced practice nurses. The investment in advanced practice nurses will result in positive outcomes for the health of the population in a short period of time, with lower costs for governments than other possible actions. It is also a strategic way to address the persistent pressure on health services, whether related to the COVID-19 pandemic or other health needs of the population, and it can be a viable strategy for the provision of care to vulnerable populations and those living in remote areas.

DESCRIPTORS

Advanced Practice Nursing; Nurse's Role; Nursing Staff; Health Systems.

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INTRODUCTION

The COVID-19 pandemic has unveiled weaknesses in health systems in several countries, emphasizing the importance of investments in resilient, integral, coordinated, and responsive health systems to fulfill the needs of the population, especially people living in remote and rural areas or in vulnerable situations, with inadequate availability and difficult access to health products, supplies, equipment, and professionals.

Human resources for health (HRH) are essential pillars in the provision of health services, ensuring universal access and coverage and the best health outcomes for the population. In recognition of the contributions of these agents in the context of the COVID-19 pandemic and their resilience and work capacity, The World Health Organization (WHO) designated 2020 as the Year of the Nurse and the Midwife, and 2021 as the International Year of Health and Care Workers. The WHO asks its Member States to protect, invest, and work together to improve the conditions of their health workforce.

Despite the recognition and visibility of the workforce, countries face challenges in the distribution, retention, motivation, competence, and training of health professionals, therefore, affecting the quality of health outcomes.

Nursing professionals account for a significant number of health workforce, 56% in the Region of the Americas⁽¹⁾, holding several and important roles in health care services. In some cases, they are the first or the only professionals the population has access to. Despite that, investments are required to strengthen their leadership and optimize this workforce, allowing them to perform the full scope of their practice⁽²⁾.

In April 2021, the Global Strategic Directions for Nursing and Midwifery 2021-2025 were approved at the 74th World Health Assembly of the WHO, after broad consultation with the Member States. This document was based on the best evidence available and highlights the importance of strengthening the nursing workforce by adopting policies focused on investments in education, jobs, and leadership and maximizing the contributions of nurses in their workplace⁽³⁾. Policy dialogue with political and decision-making processes are important actions that should follow this document, at country level.

Since 2013, the Pan American Health Organization (PAHO) has promoted initiatives to encourage the expansion of the role of nurses in the first level of care, through formal education, insertion in the labor market and interprofessional teams, and proper regulations of their practice. PAHO understands this is a critical driver of strategy for countries to increase the access to competent and qualified professionals in the first level of care⁽⁴⁾.

PAHO/WHO regards the Advanced Practice Nurse (APN) as a professional with an advanced degree who, integrated into the interprofessional team of first-level health care services, contributes to management of the care of patients/clients with mild acute diseases and diagnosed chronic disorders, under the guidance of clinical protocols or guidelines. Expanded professional practice is differentiated from that performed by the primary care nurse by the degree of autonomy in decision-making, including diagnosis and treatment of the patient's disorders⁽⁴⁾.

The proposed expanded roles of APNs in the countries of Latin American are: 1) nurse practitioners: nurses with a master's degree, who would care for patients diagnosed with mild acute and chronic diseases; 2) nurse case manager, who would participate in integrated health system networks, acting as an integrated partner in patient care shared among the levels of care; and 3) obstetric and geriatric advanced practice nurse, who would care for these specific populations⁽⁴⁾.

To advertise these roles in Latin America, PAHO has promoted events, published documents and articles, and encouraged various activities with its Collaborating Centres and other partners. For nurses, governments, population and other health professionals in Latin American countries, the advanced practice nurse role is unknown, so their labor market and practice are still doubtful for most people and even among the nurses themselves. However, the debate is deeper and broader, with the first results seen in some countries such as Chile and Mexico, in addition to broad discussion in Brazil.

The emphasis on APN implementation in the first level of care is due to its potential to expand health care and access for the population, especially people in vulnerable situations, rural and remote communities, and in places with a low density of other health professionals⁽⁵⁾; the required optimization of the response capacity of health systems to address challenges like socioeconomic and political changes, changes in the epidemiological profile, disease outbreaks, and climate change; and the implementation of health policies and actions with a more current approach to the essential public health functions⁽²⁾.

The essential public health functions are the institutional abilities of countries to perform appropriate actions. These roles include surveillance, control and management of health risk, management of health knowledge, development of health policies, social participation and social mobilization, human resources for health, access to medicines and other health technologies, health financing, and finally access to comprehensive quality health services, with an approach focused on social determinants of health⁽²⁾. Expanding the role of nurses based on the eleven essential public health functions will certainly improve health outcomes for the general population.

This paper aimed to analyze the implementation of APN and provide perspectives regarding the role of these nursing professionals in the Americas, particularly in Brazil.

Advanced practice nurses, in countries where this role is regulated, are professionals prepared to respond to the needs of the population in several areas, such as emergency care, critical care, maternal health, child health, adult and geriatric health. The potential to expand equitable access to health and universal coverage, especially in community services for people in vulnerable conditions is highlighted. In these areas, APN is prepared for clinical care and additionally in active participation in education/teaching, research, management, and leadership.

SCOPE OF CLINICAL CARE

During the COVID-19 pandemic, health systems increased their hospital bed and intensive care capacities to meet the demand for patients, requiring revision of work processes, reorganization of protocols, planning and new goals setting.

This greatly impacted not only patients but also the nursing professionals.

APNs have been associated, in the work of intensive care units, with better care outcomes, reduced length of stay, improved care coordination, collaborative work, fast response, reduced mortality, and higher patient satisfaction⁽⁶⁾. In the first level of care, APNs have been working on health prevention and promotion, as well as in the follow-up of patients with chronic conditions⁽⁷⁾.

In the COVID-19 pandemic, the potential for reinfection, chronic sequelae and rehabilitation needs have been associated with the post-COVID-19 and, like measures to prevent, maintain and protect the health of non-infected people, demand actions not only in hospital care, but also in other services, such as outpatient care, home and community services, and long-stay institutions, with comprehensive and continuous care, not only for COVID-19, but also for other health problems and needs. This is a situation we have experienced, which will continue for a long time.

Examples of nurse actions include the case of long-term care institutions of eight health departments in the United States, which resulted in lower rates of COVID-19 infection among their residents⁽⁸⁾, and the home treatment of patients on oxygen through continuous telephone monitoring by nurses leading to a reduction in mortality and hospital readmission rates within 30 days⁽⁹⁾. During the COVID-19 pandemic, services performed at home and community levels helped reduce hospital and emergency demand for COVID-19 or other conditions, thus expanding the access of vulnerable patients and supporting the rehabilitation of patients in recovery.

The COVID-19 pandemic also highlighted the role of professionals in rural and remote areas, where difficult access, bad distribution of professionals, lack of availability of resources, and unproper working conditions were challenging factors.

The growing inclusion of remote and telehealth services and the incorporation of digital health solutions may also generate new demands for nursing roles. The COVID-19 pandemic has demonstrated the potential of digital health, whether through teleconsultations, medical records, or electronic prescriptions, and has been incorporated for continuity of care, monitoring, and evaluation of health interventions. Patients recovering from COVID-19, for example, can benefit from telehealth for respiratory monitoring, support for rehabilitation, and aspects related to mental health. Also, a combination of teleconsultation and face-to-face consultations may be used as a strategy to ensure continuity of care⁽¹⁰⁾.

Investments in digital health have improved the provision of care and increased the efficiency of health services, although advances and investments in technology are required in nursing, pulling down barriers such as resistance to new technologies and promoting programs of continuing education and training of future professionals.

In Brazil, the National Policy for Health Information and Informatics (PNIIS – *Política Nacional de Informação e Informática em Saúde*), created in 2004, and the process of technological incorporation have accelerated the use of information and communication technologies by health professionals, such as, the electronic health records systems, monitoring and

notification resources, decision support systems, and telehealth resources⁽¹¹⁾.

APNs could manage the development of new health solutions, such as incorporation of digital health, while managers could monitor the development of protocols and guidelines, selection of platforms and apps, and compliance with requirements of data privacy and security⁽¹²⁾, among other activities. One of the lessons learned in the pandemic is the possibility of conducting nursing telehealth.

LEADERSHIP

APNs can play leadership roles in different settings such as clinical practice with active participation in interdisciplinary teams, in the education of future professionals, in strategic decisions, and in the development and implementation of guidelines and policies among others.

APNs can use innovative care provision approaches, develop new workflows, and work on patient integration into the health service network, or APNs can dedicate to issues affecting healthcare professionals, such as occupational, mental health and other risks.

Leadership actions can be grouped into two domains: focus on patient and focus on health organizations and systems⁽¹³⁾. Focus on patient includes individual and/or family care, health training and education, patient advocate, and establishing meaningful communication between different professionals; while focus on health organizations and systems includes actions related to the quality of care, professional practice, development of skills and competencies, expansion of clinical knowledge, effective communication, participation in decision-making process, collaborative actions, and establishment of effective partnerships⁽¹³⁾.

Leadership is one of the main pillars of APN competencies and should be widely and strongly promoted, given the need to develop complex skills, both in clinical practice and management, education and research actions. In Brazil, nurses in the first level of have been successfully recognized for their leadership, working in care provision, service management, team supervision, and decision making.

EDUCATION AND RESEARCH

APNs can be innovative in the training and continuing education strategies for different health professionals in addressing care practices for example, for control and prevention of infections and non-communicable diseases.

Frontline health care workers have sought different sources of information and participated in training and qualification programs in both face-to-face and online courses, among others. Training in infection prevention and control was a factor associated with better performance in the provision of care to patients with COVID-19. The pandemic showed the importance of continuing education and training of professionals regarding the global view of health, since the problems can be similar in different regions of the world and the implementation of successful experiences can optimize time and costs.

Moreover, APNs have played the roles of research consumer and researcher, due to their insertion in different services and

levels of care, in clinical practice, and leadership and management roles. Also, they can participate in research programs with rigorous methodological training.

These nurses can be trained to advance health research in addition to ensuring efficient, equitable, patient-centered, economically viable, and scientifically based health care.

In Brazil, advances in nursing were observed with the implementation of graduate courses, and research development, publication, and dissemination. Today, Brazil has 39 doctoral programs, with high capacity to develop leadership and competencies to address health problems⁽¹⁴⁾. The implementation of courses such as Doctor of Nursing Practice (DNP) is another important step for advanced practice nurses.

In the future, nurses with DNP may become professors, researchers, or practitioners with new focus on clinical practice, direct care, care management and clinical training to students.

IMPLEMENTATION OF ADVANCED PRACTICE NURSING IN BRAZIL

Several countries have introduced advanced roles for nurses to improve access to care, quality of care and reduce health costs⁽⁵⁾. In countries where APN has been implemented, different levels of progress and scope of practice are observed for these professionals, for example, in countries with high levels of clinical practice, such as Australia, Canada, the United States, Finland, Ireland, the Netherlands, New Zealand, and the United Kingdom, the scope of practice includes activities as prescription, health diagnosis and assessment, test request, treatment decisions, patient referral, and acting as first contact. In countries where the subject is emerging, the scope of activities foresees advanced clinical activities, but in a more restricted way than those mentioned above and usually under medical supervision. More restrictions in activities are also observed in countries with an expansion of the clinical activities, but without education at the level of advanced practices⁽⁵⁾.

APN has not been fully implemented in Latin American countries, although Chile has advanced the education of oncology nurses as APN. PAHO considers that nursing professionals with more autonomy in the first level of care can be a strategy to facilitate the access to health services and fulfill the population health needs.

Investments in this workforce are required to expand the role of nurses in the first level of care through education, regulation, and the labor market⁽⁴⁾. The basis that promotes nursing performance is formal education, preferably professional master's degree programs that provide specialized knowledge, complex skills, and improved clinical competencies for nursing practice^(1,4).

In Latin America and the Caribbean, given the expressive offer of undergraduate and *lato sensu* and *stricto sensu* graduate courses, in addition to already consolidated roles of nurses in first-level health care in the Brazilian National Health System (SUS – *Sistema Único de Saúde*), Brazil is in a unique position that favors the implementation of APN training programs.

The recent creation of the Professional Master's Degree Program in Advanced Nursing Practice by the Escola Paulista de Enfermagem at UNIFESP (EPE-UNIFESP) is an important step towards the implementation of other similar programs.

This program is focused on women's health, and it is a 24-month course, including theoretical and theoretical-practical disciplines and a dissertation that should propose an innovative product. This way, the professional develops the clinical competencies of APN and master's degree in nursing⁽¹⁵⁾.

Although important discussion has been held about this topic by professional associations and training centers in Brazil, it is important to recognize that standards and requirements should be defined for admission in training courses and for APN performance and recognition, since discrepancy in concepts and understanding have been observed.

Lack of consensus and clarity of roles and insufficient regulatory structure constitute factors that limit APN contributions and, in this specific case, prevent APN rule implementation^(5,7).

In Brazil, undergraduate programs teach nurses how to perform several activities related to exams and medication order, based on specific standards and protocols; however, it should not be mistakenly considered, since neither undergraduate training nor the time these professionals work in a certain area, whether specialized or not, will ensure the recognition as APNs, without required training.

Another aspect of APN discussions is the role of exams and medication prescription. Prescription of medications in primary health care (PHC) is a potential action for integral care to patients and has to be discussed within the scope, and if their performance will be delegated or supervised by physicians.

In Brazil there are no prerequisites or minimum training requirements for nurses to act as prescribers since it is not regulated or authorized. However, nurses report training gaps in pharmacology in undergraduate programs, reporting insufficient training to act as prescribers, even in situations foreseen in protocols⁽¹⁶⁾. This finding reinforces the relevance of graduate training that expands the critical capacity and decision-making. Several nurses with PhD in areas such as pharmacology, biochemical, physiology, for instance, could train new professionals.

Efforts to re-structure curricula, prepare teachers and regulate the practice include discussions about the content of training programs, availability and qualification of professors, and the identification and analysis of population needs, as well as the job offer in the teams working in first-level health care.

A continuous update of the regulatory process also allows a review of the scope of practices of nursing and practices that are shared with other professional categories, so the regulation of practice, professional qualification, and workplace are consensual elements recognized by the subjects, replacing areas of conflict arising from disputes⁽¹⁷⁾. The skill mix within the interprofessional health team can be a viable alternative for the practice of advanced practice nurses in first-level health care, and it has been effective in several countries, pulling down barriers such as scarcity and poor distribution of human resources and expanding the resolvability and quality of health services⁽¹⁸⁾.

Discussions should also involve high decision-making levels and address aspects of legislative protection, remuneration systems, evaluation mechanisms, and strategies to support and strengthen this professional practice⁽¹⁹⁾.

Finally, the APN implementation is a social construction, in which, in addition to the actors mentioned, patients must be included in the creation and introduction of new roles. It is

evident that APNs are able to establish a relationship of trust with patients, coordinate interprofessional teams, refer patients to other professionals, request tests, diagnose and treat chronic and acute patients, with supervision or tasks delegated by a physician, which should result in better health outcomes for the population.

CONCLUSION

Brazil has several conditions that make it ready for the implementation of the role of advanced practice nurses and development of their skills, such as clinical practice, training, research, management, and leadership.

Although APNs have an important role in health services and on the COVID-19 frontline, these professionals can also work in different settings, such as schools, long-term care institutions, their own clinics/offices, and other places.

Implementation is a long way off though. The implementation of this role requires the participation of the education sector, government and the regulatory bodies.

The education sector should organize itself to continue to prepare professionals who are aligned with the healthcare model, with public health competencies and able to respond to the health needs of the population.

Regulations must ensure the possibility of full professional practice and the labor market must absorb these professionals, as long as this role is known to and accepted by the population.

This investment will show good results for the population and governments in the short run, with lower costs than other actions. It is also a strategy to address the pressure on health systems, whether related to COVID-19 or to other health needs of the population, and it can be a viable strategy for the provision of care to more vulnerable groups.

PAHO will keep investing and working to provide the population with a better access to qualified, trained, well-distributed, and motivated health professionals who can, through regulation and an attractive job market, improve the health of people living in the Americas.

RESUMO

Estudo reflexivo com objetivo de analisar a implementação da Enfermagem de Práticas Avançadas (EPA) e as perspectivas de atuação deste profissional na Região das Américas, com enfoque no Brasil. Diversos países têm introduzido papéis avançados para enfermeiros no intuito de melhorar a qualidade dos cuidados e para reduzir custos em saúde. Este papel não está totalmente implementado nos países da América Latina, ainda que alguns países tenham avançado nas discussões sobre o tema e na proposição de cursos de pós-graduação. O Brasil tem plenas condições para implementação de enfermeiros de prática avançada. O investimento em enfermeiros de prática avançada implicará em resultados positivos para a saúde da população em um curto período de tempo e com menores custos para os governos, em comparação com outras possíveis ações. Também se configura como estratégia de enfrentamento da pressão nos serviços de saúde, seja em decorrência da pandemia de COVID-19, como para as demais necessidades de saúde da população; e pode ser uma estratégia viável na atenção de populações em situação de vulnerabilidade e em regiões remotas.

DESCRITORES

Prática Avançada de Enfermagem; Papel do Profissional de Enfermagem; Recursos Humanos de Enfermagem; Sistemas de Saúde.

RESUMEN

Estudio reflexivo que pretende analizar la implementación del rol de la Enfermera de Práctica Avanzada (EPA) y las perspectivas de actuación de este profesional en la Región de las Américas, sobre todo en Brasil. Varios países han introducido roles avanzados para los profesionales de la enfermería con el fin de mejorar la calidad de la atención, además de reducir los costos en salud. Pero este rol no está totalmente introducidos en los países de América Latina, aunque algunos de ellos avanzaron en las discusiones sobre el tema y en la propuesta de cursos de posgrado. Brasil dispone de plenas condiciones para poner en práctica la enfermería de práctica avanzada. Esta es una inversión que generará resultados para la población a corto plazo y con menores costos para los gobiernos que otras acciones. También constituye una estrategia para hacer frente a la presión sobre los servicios de salud, ya sea por las demandas de la pandemia del COVID-19, o por las demás necesidades de salud de la población; y puede ser una estrategia viable en la atención a las poblaciones vulnerables y en las regiones remotas.

DESCRIPTORES

Enfermería de Práctica Avanzada; Rol de la Enfermera; Personal de Enfermería; Sistemas de Salud.

REFERENCES

1. World Health Organization. State of the world's nursing report – 2020 [Internet]. Geneva: WHO; 2020 [cited 2020 Aug 18]. Available from: <https://www.who.int/publications/i/item/9789240003279>
2. Pan American Health Organization. The essential public health functions in the americas: a renewal for the 21st century. Conceptual framework and description [Internet]. Washington: PAHO; 2020 [cited 2021 Jan 15]. Available from: <https://iris.paho.org/handle/10665.2/53124>
3. World Health Organization. Global strategic directions for nursing and midwifery 2021–25. Draft for Consultation [Internet]. Geneva: WHO; 2021 [cited 2021 Mar 9]. Available from: <https://www.who.int/publications/i/item/9789240033863>
4. Pan American Health Organization. Expanding the roles of nurses in primary health care [Internet]. Washington: PAHO; 2018 [cited 2020 Aug 19]. Available from: <https://iris.paho.org/handle/10665.2/34958>
5. Maier CB, Aiken LH, Busse R. Nurses in advanced roles in primary care. OECD Health Working Papers [Internet]. 2017 [cited 2021 Mar 9];98:71. Available from: <https://www.oecd-ilibrary.org/content/paper/a8756593-en>
6. Woo BFY, Lee JXY, Tam WWS. The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency and critical care settings: a systematic review. Hum Resour Health [Internet]. 2017 [cited 2021 Mar 9];15(1):63. Available from: <http://human-resources-health.biomedcentral.com/articles/10.1186/s12960-017-0237-9>

7. Hämel K, Toso BRGO, Casanova A, Giovanella L. Advanced Practice Nursing in Primary Health Care in the Spanish National Health System. *Cien Saude Colet*. 2020;25(1):303-14. DOI: <https://doi.org/10.1590/1413-81232020251.28332019>
8. Figueroa JF, Wadhera RK, Papanicolas I, Riley K, Zheng J, Orav EJ, et al. Association of nursing home ratings on health inspections, quality of care, and nurse staffing with covid-19 cases. *JAMA [Internet]*. 2020 [cited 2021 Mar 9];324(11):1103-5. Available from: <https://jamanetwork.com/journals/jama/fullarticle/2769437>
9. Banerjee J, Canamar CP, Voyageur C, Tangpraphaphorn S, Lemus A, Coffey C, et al. Mortality and readmission rates among patients with covid-19 after discharge from acute care setting with supplemental oxygen. *JAMA Netw Open [Internet]*. 2021 [cited 2021 Mar 9];4(4):e213990. Available from: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2778078>
10. Park S, Elliott J, Berlin A, Hamer-Hunt J, Haines A. Strengthening the UK primary care response to covid-19. *BMJ [Internet]*. 2020 [cited 2021 Mar 9];370:m3691. Available from: <https://www.bmj.com/lookup/doi/10.1136/bmj.m3691>
11. Brasil. Ministério da Saúde. Política Nacional de Informação e Informática em Saúde [Internet]. Brasília; 2016 [cited 2021 Mar 9]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_infor_informatica_saude_2016.pdf
12. Car J, Koh GCH, Foong PS, Wang CJ. Video consultations in primary and specialist care during the covid-19 pandemic and beyond. *BMJ*. 2020;371:m3945. DOI: <https://doi.org/10.1136/bmj.m3945>
13. Lamb A, Martin-Misener R, Bryant-Lukosius D, Latimer M. Describing the leadership capabilities of advanced practice nurses using a qualitative descriptive study. *Nurs Open*. 2018;5(3):400-13. DOI: <http://doi.wiley.com/10.1002/nop2.150>
14. Mendes IAC, Ventura CAA, Silva IR, Gir E, Almeida EWS, Queiroz AAFLN, et al. Alignment and contribution of nursing doctoral programs to achieve the sustainable development goals. *Hum Resour Health*. 2020;18(1):86. DOI: <https://doi.org/10.1186/s12960-020-00530-7>
15. Mattos-Pimenta CA, Coca KP, Amorim MHC, Belasco AGS, Gabrielloni MC, Schirmer J. Prática Avançada em Enfermagem na Saúde da Mulher: formação em Mestrado Profissional. *Acta Paulista de Enfermagem*. 2020;33:eAPE20200123. DOI: <https://doi.org/10.37689/acta-ape/2020AE01235>
16. Martiniano CS, Marcolino EC, Souza MB, Coelho AA, Arcêncio RA, Fronteira I, et al. The gap between training and practice of prescribing of drugs by nurses in the primary health care: a case study in Brazil. *Nurse Educ Today*. 2016;36:304-9. DOI: <https://doi.org/10.1016/j.nedt.2015.07.017>
17. Toso BRGO, Padilha MI, Breda KL. The euphemism of good practice or advanced nursing practice. *Escola Anna Nery*. 2019;23(3):e20180385. DOI: <https://doi.org/10.1590/2177-9465-EAN-2018-0385>
18. Cassiani SHDB, Fernandes MNF, Reveiz L, Freire Filho JR, Silva FAM. Combinação de tarefas do enfermeiro e de outros profissionais na atenção primária em saúde: uma revisão sistemática. *Rev Panam Salud Publica*. 2020;44:1-11. DOI: <https://doi.org/10.26633/RPSP.2020.82>
19. Kim S, Lee TW, Kim GS, Cho E, Jang Y, Choi M, et al. Nurses in advanced roles as a strategy for equitable access to healthcare in the WHO Western Pacific region: a mixed methods study. *Hum Resour Health*. 2021;19(1):19. DOI: <https://doi.org/10.1186/s12960-021-00555-6>

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