

Implementation strategy for advanced practice nursing in primary health care in Chile

Estratégia de implementação para a prática avançada de enfermagem na Atenção Primária à Saúde no Chile

Estrategia de implementación para la práctica avanzada de enfermería en la Atención Primaria de Salud en Chile

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Descritores

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Abstract

Objectives: (i) Outline the steps and progress made by Chile to implement the advanced practice nursing role using the PEPPA framework as a guide, (ii) demonstrate the effectiveness of the PEPPA framework to identify barriers and guide the implementation process, and (iii) discuss the next steps for role implementation.

Methods: The framework includes nine steps in a flexible and iterative process.

Results: This paper provides an in-depth analysis of activities employed for each step of the PEPPA Framework and their contribution to advanced practice nursing role development in Chile. In particular, stakeholder engagement activities were essential for informing key health care decision and policy-makers about the advanced practice nursing role, obtaining their buy-in and support for the role, and establishing consensus on role priorities. Strategies used to overcome some challenges in implementing framework steps are also discussed along with next steps to evaluate and monitor the implementation and establishment of the advanced practice nursing role in the long term.

Conclusion: The PEPPA Framework provides important guidance for countries where advanced practice nursing roles are just being introduced by identifying and addressing barriers to the effective role design and successful implementation.

Resumo

Objetivos: (i) Delinear os passos e progressos realizados pelo Chile para implementar a prática avançada do papel da enfermagem usando o Enfoque PEPPA (*Participatory Evidence-based Patient-focused Process*) como guia, (ii) demonstrar a eficácia da estrutura do PEPPA para a identificação de barreiras e guiar o processo de implementação, e (iii) discutir os próximos passos para a implementação do papel da enfermagem.

Métodos: O enfoque inclui nove etapas em um processo flexível e iterativo.

Resultados: O presente estudo fornece uma análise aprofundada das atividades empregadas para cada etapa do Enfoque PEPPA e sua contribuição para o desenvolvimento do papel da enfermagem na prática avançada no Chile. Em particular, as atividades de participação das partes interessadas foram essenciais para informar os principais decisores e formuladores de políticas de saúde sobre o papel das práticas avançadas de enfermagem, obtendo sua adesão e apoio ao papel da enfermagem e estabelecendo um consenso sobre suas prioridades. As estratégias usadas para superar alguns desafios na implementação das etapas do PEPPA também são discutidas, juntamente com os próximos passos para avaliar e monitorar a implementação e o estabelecimento do papel da enfermagem na prática avançada a longo prazo.

Conclusão: O Enfoque PEPPA fornece diretrizes importantes para os países em que a prática avançada do papel da enfermagem está recém sendo introduzida, por meio da identificação e análise de barreiras para o delineamento eficaz do papel e sua implementação exitosa.

Resumen

Objetivos: (i) Delinear los pasos y avances logrados por Chile para implementar el rol de la práctica avanzada de enfermería utilizando el enfoque PEPPA (*Participatory Evidence-based Patient-focused Process*) como guía, (ii) demostrar la eficacia de la estructura del PEPPA para identificar barreras y guiar el proceso de implementación, y (iii) debatir los próximos pasos para la implementación de roles.

Métodos: El enfoque incluye nueve etapas dentro de un proceso flexible e interactivo.

Resultados: El presente estudio ofrece un análisis profundo de las actividades empleadas en cada etapa del enfoque PEPPA y su contribución al desarrollo del rol de la práctica avanzada de enfermería en Chile. En particular, las actividades de participación de las partes interesadas fueron esenciales para informar a los principales tomadores de decisiones y formuladores de políticas de salud sobre el rol de las prácticas avanzadas de enfermería, con lo que se obtuvo su adhesión y apoyo al rol de la enfermería y se estableció un consenso sobre las prioridades. También se discuten las estrategias usadas para superar algunos problemas de la implementación de las etapas del PEPPA, junto con los próximos pasos para evaluar y monitorear la implementación y el establecimiento del rol de la práctica avanzada de enfermería a largo plazo.

Conclusión: El enfoque PEPPA ofrece importantes directrices para los países en que el rol de la práctica avanzada de enfermería está recién siendo introducido, por medio de la identificación y análisis de barreras para el diseño eficaz de roles y su correcta implementación.

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Introduction

In 2014, the Executive Committee of the Pan American Health Organization (PAHO) proposed the Strategic Plan for Universal Health Coverage (UHC).⁽¹⁾ To achieve UHC, PAHO recognized the importance of developing high quality primary health care (PHC) services, and investing in health human resources, especially related to nurses, to deliver these services. This strategic plan built on an earlier PAHO (2013) resolution with a specific call to strengthen the primary health care workforce by expanding the introduction and numbers of advance practice nurses (APNs).⁽²⁾

The International Council of Nursing (ICN) defines an APN as “a registered 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”.⁽³⁾

Globally, policy priorities for primary health care reform have been an important driver for the introduction of APNs in many countries (e.g., United States, Canada, Netherlands, Australia).⁽⁴⁾ Several systematic reviews of the literature evaluating APNs in primary care have consistently demonstrated that they provide safe, high quality care and may lower health care costs.^(5,6) Further analysis of APN outcomes demonstrates their alignment with policy priorities in Latin American and Caribbean (LAC) countries to achieve universal health and universal health coverage.⁽⁷⁾ Unlike some countries, where nursing has developed over 50 years to educate APNs, expand their scope of practice, and demonstrate the quality of their practice, in LAC countries the APN is a new concept.

In response to population health needs in LAC, many nurses with a bachelor’s degree work beyond their scope of practice as an APN, but without the benefit of formal education and professional regulation. Responding to the recent Resolution, PAHO is currently establishing a work plan to support the expansion and pro-

fessional development of the Advance Practice Nursing in LAC with a focus on education, implementation, and regulation. In 2018, PAHO published, *Expanding the Roles of Nurses in Primary Health Care*, a groundbreaking document for the region which summarizes efforts thus far and sets goals for the resolution going forward.⁽⁸⁾ Today, there is growing interest in the implementation of APNs in LAC countries, as demonstrated by progress made in Brazil, Colombia, Chile, and Mexico. Of these countries, Chile has made the most significant progress and concrete steps to achieve the plan that PAHO has proposed.

The purpose of this paper is to: (i) outline the steps and progress made by Chile to implement the advanced practice nursing role using the PEPPA framework as a guide, (ii) demonstrate the effectiveness of the PEPPA framework to identify barriers and guide the implementation process, and (iii) discuss the next steps for role implementation.

Methods

PEPPA is an acronym for a **p**articipatory, **e**vidence-based, **p**atient-focused **p**rocess for advanced practice nursing role development, implementation, and evaluation.⁽⁹⁾ It is recognized as a best practice approach for introducing APNs and has been employed successfully in more than 16 countries.⁽¹⁰⁾ It is a systematic strategy to guide countries throughout the implementation process and to address barriers to the effective design, implementation, and evaluation of advanced practice nursing roles. Its adaptation to the local context allows for solid planning based on relevant data about the population and health system of each country.⁽¹¹⁾ Framework objectives are to: i) use relevant data to make evidence-informed decisions to improve health services and outcomes, ii) support the development of the advanced practice nursing role and its orientation to patient-centred and holistic care, iii) promote the integration and maximization of APN expertise, iv) promote work environments that sup-

port role development, and v) continually assess the impact of the role and expected short and long-term outcomes.⁽¹¹⁾

The framework includes nine steps in a flexible and iterative process. Steps 1 to 6 focus on establishing and defining the scope of the advanced practice nursing role. Step 7 focuses on the development and implementation of the role, and Steps 8 and 9 on the continuous development and long-term sustainability of the role through a rigorous evaluation of the expected results (Figure 1).

i) Results Steps and progress made by Chile to implement the advanced practice nursing role using the PEPPA Framework as a guide

In the case of Chile, our journey to introduce APNs, began following participation at an international meeting on advanced practice nursing that specifically focused on LAC countries. A key recommendation from this meeting was for nurse leaders in each country to apply systematic and evidenced based approaches as outlined by the PEPPA framework to initiate role

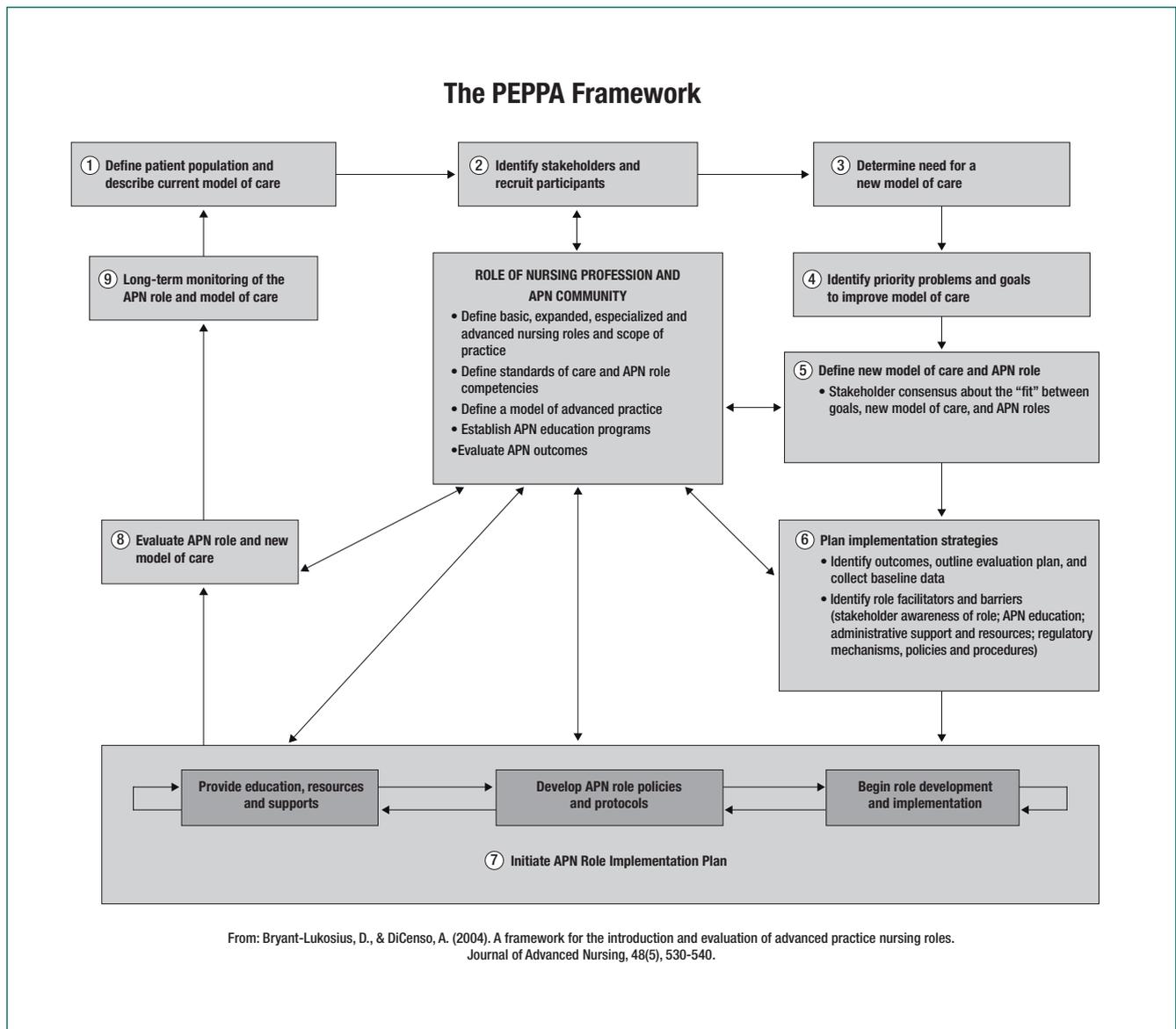


Figure 1. The PEPPA Framework

development.⁽¹¹⁾ As a meeting participant, the Dean of Nursing, University of the Andes, took on a leadership role to begin this process in Chile. As of 2018, we have advanced to Step 6 of the framework and are working closely with universities that have or could implement the advanced practice nursing programs. In this section we describe application of the PEPPA Framework in Chile.

Step 1: Improve patient health outcomes by developing human resources in nursing to advance universal health

This step identifies the patient populations to be the focus of activities in subsequent steps and establishes the scope of the process from a team, organizational, geographic, or jurisdictional perspective (Bryant-Lukosius & DiCenso, 2004). For Chile specifically, this involves identifying patients and/or populations requiring PHC as the main focus of activities”.⁽¹¹⁾

According to 2018 Census, Chile has 18 million inhabitants concentrated mainly in central region and urban areas. The Gross Domestic Product is around 24.500 USD with a great variability among regions, where the richest regions are related to minery and the poorest to agriculture sectors. The life expectancy in Chile is 80 years of age which is, the highest in LAC countries (Organization for Economic Cooperation and Development, 2017). The main causes of mortality are related to cardiovascular and respiratory conditions and cancer. Health care services are delivered primarily in hospital settings and through PHC centres for about 80% of the Chilean population that have public health insurance. Primary health care is governed by a council and organized in Family Health Centers (CESFAM) where a multidisciplinary team composed of physicians, nurses, nursing technicians, nutritionists, physiotherapists, podiatrists, and others work together. The professional composition of health teams in CESFAM varies according to geographical location, with a lower density of nuclear professionals (doctors, midwives, and nurses) in the north and rural areas of Chile.⁽¹²⁾

This team attends to the needs of the population who are covered by public health insurance on an outpatient basis. Typically, this involves an aging population with one or more chronic health conditions. The CESFAM also offers acute health care services, but in practice it is difficult to have access to this care due to physician shortages and over-demand from chronically ill patients.

In addition, the PHC centers provide a range of health services for children, adolescents, women, adults, seniors, and those with mental health problems, including a national immunization program, and procedures of low complexity. The cardiovascular programs are staffed by physicians, nurses, nutritionists, and podiatrists and are in high demand by the adult and senior populations. It should be noted that much of the care provided in PHC is part of the “benefit basket/package” organized and financed by the Explicit Health Guarantees Law (GES for its acronym in Spanish), which guarantees timely access. The implementation of this law has improved access to health services for patients with pathologies covered by the GES but has also led to longer waiting lists and delays for patients with non-GES and acute pathologies. As a result, CESFAM staff are overworked and have limited time for health promotion and prevention activities.

In order to increase access to health care, the APN has been proposed by PAHO as a highly effective evidence-based strategy to enhance PHC especially for those with multiple chronic conditions. Taking into account the adult population with chronic conditions, the APN could perform nursing and medical care at the same time, incorporating health promotion and prevention activities. Through these activities, the APN could improve the delivery of comprehensive and coordinated care, foster patient adherence to treatment, and improve patient health outcomes. The introduction of APNs would also increase access to care for patients with chronic conditions and enable physicians to focus on the treatment of patients with more severe acute and complex health problems.

Step 2: Identify stakeholders

PAHO has promoted advanced practice nursing role implementation for LAC. Due to this commitment, we were invited to participate in the International Summit at McMaster University in Hamilton, Ontario, Canada (2015) and University of Michigan, Ann Arbor, Michigan, USA (2016), which allowed us to expand our network with advanced practice nursing leaders in countries where the role has been well established for decades. We have been working in collaboration with experienced APNs to address implementation challenges in LAC. These experts have also connected us with additional resources through organizations such as the ICN Nurse Practitioner/APN Network (INP/APNN).

In Chile, the first national strategy according to PEPPA framework, was a summit in 2016 held at the Universidad de los Andes with PAHO's sponsorship and participation from Ministry of Health representatives, faculty from schools of nursing, nurses experienced in PHC, and members from social and policy studies centers. The main objectives were to analyze the advanced practice nursing role for PHC and to develop an action plan for role implementation. For this purpose, the APN-PHC Chilean network was created under the stewardship of the Chilean Association of Nursing Schools (ACHIEEN by its initials in Spanish).

Mainly, the Chilean network has worked on being a central promoter of the role, developing different activities in order to spread the APN concept. Activities strategically targeted key stakeholders in PHC and other relevant health care and public policy sectors. The activities caught a great deal of media attention all over the country. For example, we took advantage of the news by appearing in the press to discuss the APN as a solution for addressing issues related to poor access to PHC and UHC. We sent letters to the editor describing how the APN could be an effective strategy to contribute to solving these problems. As a consequence, we were asked to write in local scientific journals with high impact in the medical area and public health. Also, a very influential institution of

social and public policy studies, asked us to publish a 20 page article in their journal on the history, relevance and future of advanced practice nursing roles. We also participated in nursing and public health conferences, seminars, and workshops and had meetings with interested groups such as the national council association, public health workers associations, Association of Medical Faculties, health professionals, and politicians. As a result of these networking activities, several stakeholders and organizations from medicine and other health professions have shown their support for the APN as a strategy to increase access to health care and improve health outcomes in PHC.

Step 3: Determine unmet patient health needs

To determine unmet and priority patient health needs that would benefit from the introduction of the APN in PHC, several stakeholder meetings were conducted including three symposiums in the central, northern, and southern regions of Chile.⁽¹³⁾ Additional meetings with public health and PHC experts employed SWOT analysis and consensus methods. We found that PHC workers and representatives from the Ministry of Health had differing views about the priority unmet needs and populations that would be best served by APNs.

According to the view of PHC's workers, the APN could be helpful in providing direct patient care in a variety of situations such as:

- Comprehensive nursing and medical care in PHC centers or in the home;
- Consultations for diagnosis, treatment, referral, and ordering and interpreting diagnostic tests. This approach increases the capacity to address patient health problems in a cost-effective way;
- Case management to reduce fragmented care and improve the continuity of care for patients receiving services at different levels of the health system;
- Targeted care for patients with unmet needs including bereaved families, adolescents, patients with addiction and mental health problems, and those in communities with limited access to care;

- Patient and family education to improve health literacy. The APN can establish a close relationship with families through a model of care based on a support relationship with emphasis on prevention and health promotion;
- Remote health care, through the use of technology and telemedicine in places that are not easily accessible; and
- Triage, in the PHC emergency department.

However, from the Ministry of Health's view, patients with highly prevalent chronic health conditions are of greater priority especially related to patients with chronic diseases (i.e., diabetes, hypertension), problems or diseases of aging, cancer, and mental health conditions.

Step 4: Identify priorities and goals to introduce the advanced practice nursing in primary health care

In this stage, it will be necessary to prioritize, according to urgency and feasibility, which health problems the APN could address in the populations with unmet needs identified in Step 3. For that purpose, a qualitative research study is being conducted in different geographic areas of Chile. The results will be useful to address the next step, design a strategic plan and get the support of Ministry of Health.

Step 5: Define the advanced practice nursing role in primary health care

During 2017, we collaborated with PAHO to develop and validate a set of competencies for the APN in PHC for the LAC countries. At the national level, with Fulbright funds and in collaboration with George Washington University, we are working on designing a survey that will allow us to identify the central competencies for the advanced practice nursing role in PHC for Chile. In this way, we can contextualize the role according our national health needs and priorities oriented to the population determined in Step 4.

Step 6: Plan implementation strategies

To date, we have employed planned strategies to promote the introduction of APNs based on recommendations from the literature and have lev-

eraged new opportunities that have arisen during the process. These strategies have included: the Santiago Summit where we brought PHC stakeholders together to discuss the APN concept and role; the formation of the Chilean APN-PHC Network, which we led and joined into a single coalition of the academic world in nursing in Chile to disseminate the role and its benefits; and participation in the development of a National Cancer Plan led by the Human Health Resources Commission.

In collaboration with the Ministry of Health, city councils, the National Nurses Association, and the Chilean APN-PHC Network we plan to conduct a pilot project to implement the advanced practice nursing role in PHC. The project will be important for demonstrating the health outcomes and benefits of this role for achieving country aims to increase access to health and universal health coverage. Once these objectives are achieved, the need for new policies or legislation to support an expanded scope of practice and regulation of the APN can be determined and addressed.

Discussion

i) Demonstrate effectiveness of the PEPPA framework to identify barriers and guide the implementation process

Application of the PEPPA Framework and its systematic steps and strategies is key to successful advanced practice nursing role implementation. The PEPPA Framework has been recognized as a best practice for the redesign of health care; it is useful to introduce, implement, and sustain the advanced practice nursing role.^(10,11) In our work, the framework has been useful to identify and implement the key steps at relevant points to advance the effective implementation of the role in Chile. It was key to describe and analyze the national context in order to define the right population to focus advanced practice nurse role development. The framework was also helpful for identifying and engaging key stakeholders in order to understand and strategically address their

policy priorities and perspectives in role planning and development. Through stakeholder engagement we were able to focus on the facilitators, anticipate possible barriers to introducing the APN, and establish a network to support a future successful implementation.

The relevant points that we can highlight about use of this conceptual framework in our context are:

Facilitators

A fundamental facilitator as suggested in the literature is establishing a nursing consortium.⁽¹¹⁾ For this, the Chilean APN-PHC Network was formed, composed of 11 universities that have nursing schools.⁽¹³⁾ Its purpose has been to continue with the implementation of the advanced practicing nursing role in Chile. This entity has been in charge of carrying out the proposed strategies.

Another relevant facilitator has been PAHO, which has stated in its resolutions that introduction of the APN is a strategy for achieving universal access to health. PAHO has worked actively to collaborate with public policies in the LAC countries in order to enable the role of the APN and to offer advanced practice nursing master's programs in the universities of the region. In Chile, PAHO has been fundamental to advance the work of the APN PHC-Chile Network in various instances such as facilitating meetings with the Ministry of Health and national and international stakeholders, and providing sponsorship support for key activities

Barriers

According to the literature, physician opposition is frequently reported as a barrier to the introduction of APNs that we should consider in our implementation planning. This opposition may be because the APN in PHC can independently take on certain tasks of physicians, causing them to feel threatened or to be concerned about the safety and quality of patient care.⁽¹⁴⁾ Inglehart's study in the USA about physicians and the APN,⁽¹⁵⁾ reported a lack of agreement on role definitions and per-

ceived differences in the quality and effectiveness of patient outcomes between physicians and APN since they do not have the same training. In countries where physicians must bill for their services, the introduction of APNs may be seen as a threat to their income, unless reimbursement policies are put in place to mitigate this concern.⁽¹⁶⁾ However, in Chile, the potential benefits of the APN for improving public health seems to have superseded the interests of medical associations and paved the way for role acceptance among physician colleagues. A demonstration of this acceptance can be seen by the incorporation of the APN as a cost-effective model in a health proposal by the new Chilean government. One of the main objectives of the health proposal is to modernize and strengthen PHC. The task shifting and the implementation of the advanced practice nursing role in PHC centers was seen to contribute to this objective and there were recommendations for health policy makers and universities to support this strategy.⁽¹¹⁾ Moreover, the Ministry of Health is now working on a National Cancer Plan that considers the APN role in order to increase access to care for patients with cancer.

iii) Next steps for role implementation

Engagement in this process has been uneven in that some nursing associations have had less involvement in the process. Despite the meetings we have held with the National Nursing Associations, their participation in the summits and seminars organized by the Chilean APN-PHC network have not engaged fully, thus additional efforts to facilitate their involvement are required. Their low level of engagement differs from what we have seen in other countries and is divergent from ICN recommendations to enhance the advanced practice nursing role across the world.⁽⁴⁾

Special mention must be made of the regulation issue (Step 7). Both the literature and the PEPPA Framework, carefully describe the importance of legislation and regulatory policies to enable APNs to implement the full scope of the role in practice. Currently, in Chile, the physician is the only authorized person who can diagnose and

indicate medical treatment, but the health code leaves some room for a more flexible interpretation of the law that defines the role of the nurse in Chile. This new interpretation would allow the APN to practice autonomously. However, especially at the beginning, it will be necessary to establish protocols that standardize and guide the practice of the APN while providing legal backup to work safely. Future steps should consider the development of protocols and establish this new interpretation of the law that defines nurse role. The fact that we have followed a defined plan for APN role implementation in PHC so far has made decision-makers, academics from nursing and medicine, and PHC workers become more aware of and understand the role. Due to this awareness, the Ministry of Health is currently considering the APN role as a strategy to strengthen PHC and increase access to health care for patients with cancer.

Conclusion

The PEPPA framework has been useful to recognize opportunities at the country level and stakeholders that may support the introduction of the advanced practice nursing role in Chile. The framework has also helped to recognize barriers in this process such a lack of engagement from some nursing associations. In contrast to the barriers found in the international literature, to date we have not experienced strong resistance about the advanced practice nursing role by government policy makers or medical associations. There is no doubt that the establishment the Chilean APN-PHC network has enabled joint work and consensus at an academic level about the APN definition, competencies, and scope of practice and the development of a pilot project in the future. Finally, we have national consensus about the need to advance in Universal Health Coverage. We encourage leaders from other countries to replicate the experience and begin to take steps towards the implementation of APN in PHC as recommended by PAHO.

Collaborations

All authors contributed to the study design, analysis, data interpretation, critical analysis of the intellectual content, and final approval of the version to be published.

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