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A legal framework on advanced practice nursing in Belgium: what do we and don't we know?

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ABSTRACT

Objectives: Presenting the Belgian new framework for Advanced Practice Nursing (APN) – 'Verpleegkundig Specialist [VS]'/'Infirmier de pratique avancée [IPA]' outlined in the Law of 22 April 2019, followed by a discussion of the lack of clarity, the current challenges and future opportunities.

Methods: The framework was analyzed by an expert in healthcare legislation and discussed by academics in Nursing Science and members of the board of directors of the Belgian Society of APN.

Results: Relevant paragraphs within this new law are

"Article 46 §1. No one is allowed to carry the title of 'VS/IPA' who does not possess a bachelor in nursing mentioned in article 45 and who does not meet the requirements specified in this article. At the minimum, a master's degree in Nursing Sciences is also required. §2. Additional to the scope of practice of nursing as mentioned in article 46, the 'VS/IPA' perform, in the context of complex nursing care, medical interventions in order to maintain, improve or restore the health of the patient. Care is provided in the context of a specific target group of patients and in close concertation with the physician and potential other healthcare professionals.

Conclusion: Although the legal recognition of the title of VS/IPA is a major breakthrough that will innovate healthcare, clarification is needed: How do VS/IPA distinguish themselves from other nursing functions, what is complex nursing care, which medical interventions can be performed, what is meant by specific target group of patients, what does 'in close concertation with the physician' entail, and will advisory power be possible?

KEYWORDS

Legislation; framework; advanced practice nursing; clinical nurse specialist; nurse; practitioner

Introduction

The introduction and development of 'Advanced Practice Nursing' is one of the most important developments in nursing during the twenty-first century [1]. First introduced in the USA, it is now being implemented in country-specific healthcare contexts around the world [1]. The International Council of Nursing defines an advanced practice nurse (APN) as

a registered nurse with a recommendation for a master level degree 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 she/he is credentialed to practice.[2]

Several function profiles are internationally recognized to reside under the umbrella of Advanced

Practice Nursing. However, most commonly enrolled advanced function profiles are that of the Nurse Practitioner (NP) and the Clinical Nurse Specialist (CNS) [3,4]. These functions are both clinically focused and characterized by specialization in a specific clinical area (e.g. wound care, oncology, pain, heart failure). Although both function profiles have advanced practice and autonomous functions, their scope of practice differs. Nurse Practitioners' positions involve practices which might include first point of contact for patients, patient history taking, clinical assessment, interpretation of diagnostic tests, deciding on treatment, and including prescribing medication [5,6]. Nurse practitioners commonly perform more activities related to task substitution of activities undertaken by physicians [7]. The nurse practitioner mainly focuses on the direct clinical care whereas the clinical nurse specialist is

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expected to work more in a complementary role next to physicians [8]. In general, clinical nurse specialists contribute more to the quality, safety and cost-effectiveness of patient care through the integration of knowledge supporting nursing practice and process improvement, evidence-based practice and research efforts, and by educating and supporting nurses [9]. Their practice also reflects three spheres of influence and impact: the patient (e.g. manage care of complex and vulnerable populations), the nursing staff (e.g. to educate and support nurses and other healthcare providers), and the system level (e.g. to facilitate change and innovation in healthcare systems). In Flanders, blended function profiles – combining the NP and CNS responsibilities in one person – are found in clinical practice regularly [10].

Current research on the outcomes and effectiveness of APN focuses mainly on (1) the comparison between APN and medical care providers, (2) the impact on patient satisfaction, and (3) the added value of APN for the quality and efficiency of care. Advanced practice nurses, for instance, have a positive impact on patient care and costs and it reduces waiting times [11]. ‘Nurse-led care’ by NPs with profound advanced training leads to higher patient satisfaction, and lower mortality and hospital admissions [12]. Care provided by physicians and care provided by APN resulted in similar health outcomes, care processes and costs in home care settings [13,14]. Recent studies focused on the impact of APN on professional and organizational healthcare level parameters [15]. It is stated that APN resulted in better continuity of care, and they lead guideline development, new initiatives in care, education of staff, audit and policy development [15].

It is clear that advanced practice nursing covers a variety of roles in which nurses work at an advanced level: direct clinical care (e.g. clinical assessment, decision-making and diagnostic reasoning skills in their domain of expertise), expert coach, guide and consultant (e.g. patient and colleague coaching and teaching, patient education and self-management support), researcher (e.g., evaluation of healthcare services, publication and presenting research finding within their domain of expertise), intra- and interprofessional collaborator, ethical decision facilitator, and clinical and professional leader (e.g. development, implementation and evaluation of innovative programs, quality management) [4]. Research by Van Hecke and coworkers [10] showed that APNs working in Flanders executed tasks in all the aforementioned roles, most frequently in a hospital setting.

An increasing number of countries have implemented advanced practice nursing positions over the past decades [4]. These advanced practice nursing positions were shaped along their national context. Confusion,

however, exists among nurses, hospital managers, and directors regarding jobtitle, role expectations and performance among APNs, their hierarchical and functional supervisors, and differentiation with specialized nurses not in advanced practice positions [16]. Attempts have been made to clarify the key elements of advanced practice and the practice profile of APNs with the aim of bringing stability and universality to its meaning [3,17,18].

Although the number of APNs in Belgium is also increasing, it remains nevertheless difficult to identify these APNs within the different healthcare settings [10]. As in many countries, the introduction of advanced practice nursing positions has been frequently discussed in Belgium at multiple levels [19,20]. The implementation of academic master’s programs for nurses and midwives in the 1980 s has led to the unofficial introduction of these advanced positions [21]. Yet, despite the fact that advanced educational programs are in place and that several nurses are currently working in advanced practice nursing positions, a corresponding legal framework justifying these positions has long been lacking.

The recently published Law on the Practice of the Healthcare Professions (22 April 2019) now introduces a legal framework for APNs in Belgian legislation, defined as ‘verpleegkundig specialist’ (Dutch – VS)/ ‘Infirmier de pratique avancée’ (French – IPA) [22]. This framework is undoubtedly a major breakthrough that can reshape the nursing landscape and innovate healthcare, however, at the same time, it introduced some uncertainties. In this article, we aim to summarize the relevant sections within this law, followed by a discussion of the lack of clarity, the current challenges and future opportunities.

Method

The framework was analyzed and discussed by a group of 11 experts, familiar with the domain of advanced practice nursing, consisting of one expert in healthcare legislation, eight researchers/teachers in Nursing Science and two members of the board of directors of the Belgian Society of Advanced Practice Nursing (Belgische Vereniging voor Verpleegkundig Specialisten – BVVS). Nine discussion meetings were organized between March 2019 – December 2019 to thoroughly discuss (1) the original legislative documents with a particular focus on the clarity or unambiguous description of relevant concepts used in the legislative framework, (2) the strengths and challenges surrounding this framework, and (3) the opportunities to further enhance the legislative framework in the near future. The discussions were moderated by the first and last author, who also made a summary report after each meeting. These reports were sent to all

group members for review afterwards, and approved prior to the next meeting.

New legal framework

Since 1995, the legal framework of nursing activities in Belgium in general is stipulated in the Law of 10 May 2015 concerning the Practice of the Healthcare Professions, further cited as the Law on the Healthcare Professions. This law defined only two professional levels within nursing: the nurse and the healthcare assistant, with each having their own rights to practice. The Law on the Healthcare Professions stipulated also the possibility for nurses to obtain some level of specialization, through the acquisition of particular professional competences or through a specific professional title. This degree of specialization, however, did not stipulate which additional competences to nursing practice were needed to fulfill these roles.

Since the Law on the Healthcare Professions was introduced in 1995, no legal updates in the sections pertaining to nursing were made, thereby ignoring changes and needs in healthcare practice.

In May 2018, the advice of the Federal Council of Nurses of the Ministry of Health launched *'the clinical ladder'*, providing nurses' career advancement in direct patient care while remaining in clinical settings [23]. This ladder outlined corresponding function profiles and competences consisting of registered nurses, specialized nurses (including nurse consultants), advanced practice nurses (including VS/IPA and clinical nurse research consultants). The Belgian legislator decided to create a legal framework that defines the legal competences required to practice as a VS/IPA. The Law of 22 April 2019 on the modification of the Law of 10 May 2015 on the Practice of the Healthcare Professions, therefore introduced a new Article (Article 46/1) stipulated in Box 1.

BOX 1. Article 46/1 – unofficial translation in English by authors

§1. No one is allowed to carry the title of 'Verpleegkundig Specialist/Infirmier de Pratique Avancée' who does not possess the diploma of nurse as mentioned in article 45 and who does not meet the requirements specified in this article. At least also a master's degree in Nursing Sciences will be required.

§2. Additional to the scope of practice of nursing as mentioned in article 46, the 'Verpleegkundig Specialist/Infirmier de Pratique Avancée' carries out, in the context of complex nursing care, medical interventions in order to maintain, improve or restore the health of the patient.

The aforementioned care is carried out in the context of a specific target group of patients and in close

concertation with the physician and potential other healthcare professionals.

The King of Belgium will decide through a Royal Decree after consulting the Council of Ministers, and based on the advice of the Technical Commission of Nursing and the High Council of Specialized Physicians and General Practitioners, which medical interventions the 'Verpleegkundig Specialist/Infirmier de Pratique Avancée' is entitled to carry out. Based on this advice, the King can also decide under which conditions the 'Verpleegkundig Specialist/Infirmier de Pratique Avancée' can carry out these interventions.

§3. The interventions mentioned in paragraph 2, are recorded in the nursing file.

The explanatory report accompanying the law, justifies the legal introduction of the VS/IPA in nursing as a need in practice for nurses with a master's degree to be able to perform complex nursing care and to carry out certain medical interventions for which they are not authorized. The report referred to evidence as well as policy reports showing that embedding APNs in clinical care results in better patient and healthcare outcomes (e.g. the Belgian report 'Future of Nursing' [24]), and to the aforementioned advice of the Federal Council of Nursing on the clinical ladder. It was also stipulated that the VS/IPA should perform other activities (e.g. undertaking research, providing education, coaching other healthcare professionals, ...), although these activities fall *stricto sensu* beyond the scope of the Law on the Healthcare Professions.

Lack of clarity, challenges and future opportunities of the legal framework on 'verpleegkundig specialist/infirmier de pratique avancee'

The legal framework concerning the profession of VS/IPA in the law on the Practice of the Healthcare Professions in Belgium is a major step forward in the attempt to address the increasing complexity within modern healthcare. Yet, the legal framework uses different statements that are ill-defined, leaving ample room for interpretation. These uncertainties need to be solved and explained before the profession of VS/IPA can be legally implemented in clinical practice. In the next paragraphs, we highlight the lack of clarity, the challenges that need to be addressed and future opportunities.

Situating the VS/IPA in relation to other nursing roles

The Belgian legislator labelled the new profession of 'Verpleegkundig Specialist/Infirmier de Pratique Avancée' within the discipline of nursing. It is made clear that the VS/IPA differs from a – general or a specialized – nurse, since he or she will have a higher

level of education (i.e. minimally a master's degree in nursing sciences), as well as more legal competencies with regard to his or her right to clinically practice. The VS/IPA will formally be able to work autonomously. Nonetheless, regardless of this differentiation in educational background and legal competencies, the legislator stipulated in the explanatory report of the Law of 22 April 2019, that there is no real hierarchical difference between a nurse and a VS/IPA. They are considered to work complementary. Hence, this raises questions with regard to the organizational relationship between the nurse (general or specialized) and the VS/IPA.

VS/IPA = APN = nurse practitioner and/or clinical nurse specialist?

It is not clear which functions of APNs the new law on VS/IPA precisely covers. As mentioned in the introduction, advanced practice nursing covers a range of function profiles in clinical practice and often two common advanced function profiles are described in literature, the NP and the CNS. The new Belgian legal framework of the VS/IPA only seems to provide a legal framework for the rather clinical position of the NP, and not for the CNS position. This can unintendedly be understood as a choice to only make room for the implementation of the NP positions. However, the explanatory report of this new Law refutes this misunderstanding. In this report, the legislator writes that the legally provided framework is not exhaustive in its description with regard to the role the VS/IPA can play in the overall healthcare system in general. This new legal framework covers only the clinical activities that form part of the Law on the Practice of the Healthcare Professions, the strict practice of the healthcare profession. In the explanatory report, the legislator unambiguously stresses that the VS/IPA has broader roles than the technical competences to act, such as organization of care (leadership), evidence-based nursing research and implementation of innovative practices. This viewpoint is also in line with the viewpoints of the Belgian report on the 'future of Nursing: Improving health driving change' [24], stipulating that the Belgium healthcare system needs nursing profiles bringing in effect all these roles, and not so much nurse practitioners to substitute or replace physicians to overcome shortage of physicians. Today, we need APNs who are able to work shaped by the context and the characteristics of the specific settings or region [21] and who also have leadership capabilities to develop, integrate and implement innovative care (models) at organizational-level systems and practices to ensure advancement in nursing practice. We agree with De Geest et al. [21] that the real challenge for the healthcare workforce today is in transforming an acute care (medical)-driven healthcare system into new care

models and a system attuned to all needs of patients with chronic conditions. However, these advanced roles are not formally covered by this new legal framework because the federal legislator in Belgium is not authorized to regulate the larger 'organization of care', as this falls under the responsibilities of the Communities. Therefore, in order to obtain a complete legal framework of the VS/IPA, also including other responsibilities of CNS positions, the current federal framework needs to be expanded by developing a framework at the level of the Dutch-, French- and German-speaking Communities.

Need for further development of the law

Article 46/1 of the Law on the Healthcare Professions stipulates that the VS/IPA shall have to comply with certain criteria that will be defined by the King through a Royal Decree in order to be entitled as VS/IPA. Therefore, despite the availability of a legal framework for the VS/IPA in Belgium, we will have to wait to legally implement the VS/IPA function until the King, after having obtained the non-binding advice of the Federal Council of Nurses, has decided on the set of criteria. The only criterion that currently is being stipulated in the law is that the level of education of the APN is minimally a master's degree in Nursing Sciences. Nonetheless, as long as the King does not provide the necessary royal decrees on all criteria, the title of VS/IPA cannot come into effect.

The current framework also contains several vague and ill-defined concepts that need to be clarified in these royal decrees, including the following:

a) The law stipulates the VS/IPA works in the field of complex nursing care. It is, however, not specified what is meant by 'complex' nursing care. The explanatory report of the Law that introduced article 46/1 does not provide further information.

b) The VS/IPA is only allowed to carry out the medical acts for a specific target group of patients. However, it is not explained how this 'specific target group of patients' is to be defined. Since this is a determining criterium with regard to the competence of the VS/IPA, it is regrettable that no clarification was given.

c) The VS/IPA will be allowed to carry out 'medical interventions'. A medical intervention is an intervention that forms part of the legal competence to practice as a physician, as stipulated in article 3 of the Law on the Practice of the Healthcare Professions. A clear description of which 'medical interventions' are intended, is currently lacking. It is only stipulated in the explanatory report that it covers those medical interventions for which a healthcare assistant or a nurse (defined in Article 45) are not competent to carry them out.

Autonomy in close concertation

In order to present added value for healthcare across settings, APNs should be able to work autonomously. Advanced practice nurses describe practice autonomy as 'the freedom to have the decision-making authority to care for patients "alone" without physician involvement, to practice independently as the patients' primary provider/first point of contact with self-reliance, full prescriptive authority and billing privileges as integral aspects of this autonomy' [25]. Although limited research on the effect of scope of practice independence on patient outcomes is currently available, Trasczynski et al. [26] concluded that APNs in the US, who do not have restrictive regulations on scope of practice, generated better outcomes on patient-reported available time, listening skills and providing understandable explanations, an increase in annual check-up uptake, and a long-term reduction in avoidable emergency room visits. If the APN cannot work to his or her full scope of practice, it can be seen as a waste of human resources and can lead to frustration, delays in treatment, and additional work for other healthcare professionals, as has been described by DiCenso and colleagues [27].

The Belgian legislator indicates that the practice of the VS/IPA will take place 'in close concertation with the physician and/or other healthcare professionals'. Until now, only concepts such as 'under supervision' and 'based on a medical prescription' existed in the scope of the Law on the Practice of Healthcare Professions. Hence, the concept of 'close concertation' is new to the Belgian health legislation and recognizes a certain degree of practice autonomy for the VS/IPA. 'Concertation' seems to implicate the absence of a hierarchical relationship, and would mean that the VS/IPA and the physician work at the same hierarchical level. This would create possibilities of co-management of patient care. The way the law is worded, however, at the same time seems to imply some dependency to the physician and potentially other healthcare professionals. A more detailed explanation of this concept of 'concertation' in relation to 'functional autonomy' is therefore needed.

Advisory power

Article 46/1 creates advisory power (1) for the Federal Council of Nursing with regard to the criteria in order to obtain the title of VS/IPA, (2) for the Technical Commission of Nursing and for the High Council of Specialized Physicians and General Practitioners with regard to the medical interventions that the VS/IPA will be allowed to perform, as well as on the conditions according to which these medical interventions must be carried out by the VS/IPA, and finally (3) for

the Council of Federal Ministers to have the final vote with regard to the allowed medical interventions.

Because of this substantial advisory power stipulated in this article, the further execution of this article will be very challenging. In practice, both a political approval, through the Council of Ministers and an approval by the professional organizations of nurses and physicians, through the respective advisory councils, is needed. Problems in execution can be expected, given that the legislator used different terminologies (i.e. VS/IPA) in the law than the different titles used in the clinical ladder, outlined by the Federal Council of Nursing in its advice of March 2018 (i.e. registered nurses, specialized nurses (including nurse consultants), advanced practice nurses (including VS/IPA and clinical nurse research consultants)) [23].

Furthermore, although the VS/IPA, as a minimum criterion, has to have obtained a master's degree in nursing sciences, no real representation of the VS/IPA as a new healthcare profession is created in the Federal Council of Nursing, nor in the Technical Commission of Nursing, neither in the High Council of Specialized Physicians and General Practitioners. Consequently, the VS/IPA will not be able to participate, for example through a representation of academics and the Belgian Society of Advanced Practice Nurses (BVVS) in the further development of the nursing profession.

Conclusion

The introduction of the legal framework of the VS/IPA in Belgium is an important step forward in the evolution of the nursing discipline in general, and the recognition of APNs specifically. This is undoubtedly a positive development.

Although a rather small group of experts carefully analyzed this legal framework, of which only one had expertise on legislation, and that no audio recording or verbatim transcription of the meetings took place, the approach followed by the authors is rigorous enough to state that the legal framework has some 'hidden angles' which we tried to summarize in this article.

Firstly, because of the current division of competencies between the federal authority and the communities in Belgium, the federal legislator could not create a complete framework, covering all the different roles the APN can and should cover within the Belgian healthcare system.

Secondly, although a framework has been created, this is rather general, and now has to be further elaborated through Royal Decrees in order to create a legal competence for the VS/IPA to practice in Belgium *de facto*. These Royal Decrees will also be necessary in order to explain and solve several ambiguous concepts that we highlighted above. Since the elaboration through these Royal

Decreases is linked to a significant advisory power of several councils, a quick execution of this framework presumably cannot be expected.

From the above, it is clear that clarification is needed on how VS/IPA distinguishes themselves from other nursing functions, what complex nursing care entails, which medical interventions they can perform, what is meant by specific target group of patients, what 'in close concertation with the physician' means, and if and how advisory power will be guaranteed.

Based on ongoing discussions with relevant stakeholders, the authors are working on possible solutions for the questions and remarks raised in this article. These answers will be addressed in detail in an upcoming article in the near future. This can help supporting the in-depth elaboration of this important legal framework.

Disclosure statement

The authors declare no conflicts of interest.

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References

- [1] Oddsdóttir EJ, Sveinsdóttir H. The content of the work of clinical nurse specialists described by use of daily activities diaries. *J Clin Nurs*. 2011;20:1393–1404.
- [2] Schober M, Affara F. International council of nurses: advanced nursing practice. Oxford (UK): Blackwell Publishing; 2006.
- [3] Dowling M, Beauchesne M, Farrelly F, et al. Advanced practice nursing: A concept analysis. *Int J Nurs Pract*. 2013;19(2):131–140.
- [4] Hamric AB, Hanson CM, Tracy MF, et al. Advanced practice nursing: an integrative approach. 5th. St. Louis (MO): Elsevier Saunders; 2014.
- [5] Brook S, Rushforth H. Why is the regulation of advanced practice essential? *Br J Nurs*. 2011;20(16):998–1000.
- [6] Maier CB, Barnes H, Aiken LH, et al. Descriptive, cross-country analysis of the nurse practitioner workforce in six countries: size, growth, physician substitution potential. *BMJ Open*. 2016;6(9):e011901.
- [7] Heale R, Rieck Buckley C. An international perspective of advanced practice nursing regulation. *Int Nurs Rev*. 2015;62(3):421–429.
- [8] National Association of Clinical Nurse Specialist. Statement on clinical nurse specialist practice and education. National Association of Clinical Nurse Specialists, Reston, 2019.
- [9] Mayo AM, Ray MM, Chamblee TB, et al. The advanced practice clinical nurse specialist. *Nurs Adm Q*. 2017;41(1):70–76.
- [10] Van Hecke A, Goemaes R, Verhaeghe S, et al. Leadership in nursing and midwifery: activities and associated competencies of advanced practice nurses and midwives. *J Nurs Manag*. 2019;27(6):1261–1274.
- [11] Delamaire M, Lafortune G. Nurses in advanced roles: a description and evaluation of experiences in 12 developed countries. OECD, OECD Publishing, Paris. 2010;54. <https://doi.org/10.1787/5kmbrcfms5g7-en>.
- [12] Martínez-González NA, Djalali S, Tandjung R, et al. Substitution of physicians by nurses in primary care: a systematic review and meta-analysis. *BMC Health Serv Res*. 2014;14:214.
- [13] Laurant M, Reeve D, Hermens R, et al. Substitution of doctors by nurses in primary care. *Cochrane Database Syst Rev*. 2005;2:KCD001271.
- [14] Newhouse RP, Stanik-Hutt J, White KM, et al. Advanced practice nurse outcomes 1990-2008: a systematic review. *Nurs Econ*. 2011;29:230–251.
- [15] Begley C, Murphy K, Higgins A, et al. Policy-makers' views on impact of specialist and advanced practitioner roles in Ireland: the SCAPE study. *J Nurs Manag*. 2014;22(4):410–422.
- [16] Jokiniemi K, Pietila AM, Kylma J, et al. Advanced nursing roles: A systematic review. *Nurs Health Sci*. 2012;14(3):421–431.
- [17] Gardner G, Duffield C, Doubrovsky A, et al. Identifying advanced practice: A national survey of a nursing workforce. *Int J Nurs Stud*. 2016;55:60–70.
- [18] Sevilla Guerra S, Salmerón JM, Zabalegui A. Profile of advanced nursing practice in Spain: A cross-sectional study. *Nurs Health Sci*. 2018;20:99–106.
- [19] Belgian Federal Public Service Health Food Chain Safety and Environment (BE). Gezondheidszorgberoepen in evolutie. Naar een geïntegreerde gezondheidszorg. Belgian Federal Public Service Health Food Chain Safety and Environment, Brussels; 2016.
- [20] Van Holsbeke J, Holtzer E, Foulon M, et al. Functiedifferentiatie en functieclassificatie in de verpleegkundige beroepsopleiding. Voorstellen tot actualisatie van de zorgorganisatie. Brussels: Zorgnet Vlaanderen; 2011.
- [21] De Geest S, Moons P, Callens B, et al. Introducing advanced practice nurses/Nurse practitioners in health care systems: A framework for reflection and analysis. *Swiss Med Wkly*. 2008;138(43–44):621–628.
- [22] Law of 22 April 2019 on the modification of the law of 10 May 2015 on the practice of healthcare professions, BS 14 May 2019.
- [23] Federale Raad voor Verpleegkunde. Functiemodel voor de verpleegkundige zorg van de toekomst. 2017.
- [24] Sermeus W, Eeckloo K, Van der Auwera C, et al. Future of nursing: improving health, driving change: lessen uit de internationale literatuur en studiedagen 2017. Brussels: Belgian Federal Public Service Health Food Chain Safety and Environment; 2018.
- [25] Wang-Romjue P. Meta-synthesis on nurse practitioner autonomy and roles in ambulatory care. *Nurs Forum*. 2018;53(2):148–155.
- [26] Traczynski J, Udalova V. Nurse practitioner independence, health care utilization, and health outcomes. *J Health Econ*. 2018;58:90–109.
- [27] DiCenso A, Bourgeault I, Abelson J, et al. Utilization of nurse practitioners to increase patient access to primary healthcare in Canada—thinking outside the box. *Nurs Leadersh*. 2010;23:239–259.