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ORIGINAL ARTICLE

Contextual factors influencing the implementation of advanced practice nursing in Catalonia, Spain

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Abstract

Background: Advanced practice nurse (APN) roles bring great added value to health systems. However, their integration into the health workforce and the sustainability of the role depend on contextual factors surrounding their implementation.

Aim: To explore the contextual factors that influence the organization, implementation, and performance of clinical practice among oncology APNs in Catalonia (Spain).

Methods: This is a descriptive qualitative study. A framework of contextual factors was applied to explore the perspectives of 14 oncology APNs in public hospitals in Catalonia by means of semistructured interviews. Data were analyzed according to the thematic analysis approach. The COREQ checklist was used to report the study.

Results: APNs in cancer care strongly depend on the hospital environment where they are introduced. Recognition by the multidisciplinary team, the existence of mentoring experiences, and networking between APNs are critical factors that can help or hinder the development and autonomy of the APNs. Likewise, support from nursing managers and directors is decisive in defining the professional profile, establishing accountability mechanisms, and securing financial resources, including economic recognition. Factors related to the external environment can also contribute, including a standardized national APN model and scientific societies.

Conclusions: Contextual factors around clinical practice, institutional structures, and professional networks are crucial determinants for adequately integrating APNs at the health system level.

Implications for nursing policy: Professional bodies and national nursing organizations should lay the groundwork for defining standards of practice and advocate for specific regulations. In addition, financial recognition and accountability mechanisms to assess the impact of their contribution should be a priority to ensure sustainability and APN satisfaction.

KEYWORDS

Advanced practice nursing, barriers, cancer, context, contextual factors, implementation, nursing, qualitative research, Spain

INTRODUCTION

As nurses represent the largest cadre of healthcare workers, the World Health Organization (WHO) advocates for actions to recognize and maximize their contributions, honing their scope of practice and functions to provide services within interdisciplinary teams. Indeed, strengthening the nursing workforce is considered crucial for achieving the Sustainable Development Goals, universal health coverage and meeting the current and future health needs of the population (World Health Organization, 2021). International nursing and health organizations support the development of APNs to improve healthcare access, quality, and health outcomes (ICN, 2020; WHO, 2020). There is a mounting body of evidence that

demonstrates their impact and unique value for the health system in general and in cancer care in particular (Molassiotis et al., 2021). However, the adoption of this role presents different stages and speeds of development even within the same country (Unsworth et al., 2022).

The integration of APNs into the healthcare system is a complex and context-dependent process (Schober, 2017). The International Council of Nursing (ICN) defines an APN as "a generalist or specialized nurse who has acquired, through additional graduate education (minimum of a master's degree), [an] expert knowledge base, complex decision-making skills and clinical competencies," signaling that the specific characteristics are shaped by the context in which they are credentialed to practice (ICN, 2020).

Studies have highlighted contextual factors as key determinants for proper implementation, such as role clarity, organizational support, and educational requirements (Casey et al., 2019). Context can be defined as "the set of circumstances or unique factors that surround a particular implementation" (Damschroder et al., 2009), which may include professional training, resources, the healthcare provider/team, ownership of the practice, community involvement, and the healthcare model, among others (Tomoaia-Cotisel *et al.*, 2013). The interplay of these contextual factors can explain variations in clinical practice, the implementation process, and APN outcomes (Nilsen & Bernhardsson, 2019), acting as barriers in one setting and facilitators in others (Pfadenhauer et al., 2017). However, knowledge of the deployment of APNs is mainly limited to a small number of countries such as the United States, Canada, and Australia (Maier et al., 2017).

Spain is one country where the APN role has emerged with great force over the last decade to address unmet needs requiring enhanced nursing care; however, no specific regulatory framework or national implementation plan has been developed. As a result, the roles and responsibilities of APNs remain unclear in practice and may vary within organizations (Sevilla Guerra et al., 2021). The inability of health systems to capitalize on APNs' clinical competencies and skills and the lack of recognition afforded to them are related to the lack of specific legislation (Sevilla Guerra et al., 2018). Nevertheless, little attention has been paid to gaining an in-depth understanding of the characteristics of the specific environments in which their integration and development take place. The literature on the developmental context of APNs in Spain is sparse and limited to Catalonia, where a comparative study was carried out in the Canadian region of Quebec (Jean et al., 2019). The findings suggest that the APN development process in Catalonia was marked by inertia, and they recognized that further reporting of the specific contextual factors that influence their development and implementation is needed. In fact, a recent health plan for this region included strategic actions to better define new health professional profiles, including APNs, in parallel with the establishment of a network of reference centers for oncology (Department of Health of Catalonia, 2021). Other authors have also argued that the adequate integration and recognition of APNs should be a priority for nursing workforce planning in Spain (Sevilla Guerra et al., 2021).

As the implementation of APNs is a process influenced by cultural drivers and requires changes at numerous levels, understanding it requires fully grasping contextual elements and their dynamics. In this study, we used Tomoaia-Cotisel et al.'s (2013) framework for contextual factors, developed to support the reporting of key contextual factors for complex phenomena in health care and to improve the internal and external validity of research (Table 1). It classifies the most important contextual factors into five domains: (1) practice, (2) the broader organizational context, (3) the external environment, (4) the implementation pathway, and (5) the motivation for implementation.

The present study was conceived to contribute to the optimal implementation and knowledge about deployment of the APNs in Spain. Specifically, we aimed to explore professional perspectives about the contextual factors that influence the organization, implementation, and performance of clinical practice among APNs working in cancer care in Catalonia (Spain).

METHODS

Study design

This study used a qualitative, descriptive design and semistructured interviews, in order to explore the contextual factors influencing the organization, implementation, and performance of clinical practice in oncology APNs in public hospitals in Catalonia. This approach allows discovering and understanding a phenomenon, a process, or the perspectives and worldviews of the people involved (Bradshaw et al., 2017). The study is reported using Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines (Tong et al., 2007).

Sample and setting

This study took place from February 2020 to January 2021 in Catalonia (population 7.7 million), a region of north-eastern Spain, where the Catalan Health System provides universal health care. A purposive sample was used to recruit 14 oncology APNs. The sample was drawn from two types of settings where oncology APNs work in Catalonia: (i) general hospitals, where cancer care includes disease-based tumor boards, varying degrees of professional specialization, and resources such as intensive care units and radiation oncology machines; and (ii) university teaching hospitals, which have disease-based tumor boards made up of highly specialized professionals and resources such as high-scale radiation oncology, molecular diagnosis, and hemato-oncology services. In order to achieve the maximum representativeness of the phenomenon under study, based on the two settings described above we used three eligibility criteria (Berenguera Ossó *et al.*, 2014):

TABLE 1 Themes and examples of contextual factors.

Domains Level specific	Description
1. Practice	Characteristics that describe the clinical or practice setting related to experiences of the staff and patients (e.g., clinician demographics, attitude, training, and recognition type)
2. Larger organization context	Factors related to the larger organization with which an individual's practice is associated (e.g., structural capabilities, leadership style, degree of integration, and contractual arrangements)
3. External environment	The health care system, policy, and community milieu relevant to the project (e.g., community characteristics, political authority, level of coordination/involvement with community, payment model(s), grant, or external financial support)
Cross-cutting themes	
4. Implementation pathway	The specific elements and processes of an intervention, including operational changes and feedback loops (e.g., experience with transformation, burnout, adaptive reserve, provision of a safe place to experiment and even fail, assistance received, and main intervention objectives and outcomes)
5. Motivation for implementation	Key personal, organizational, and cultural drivers of change at multiple levels (e.g., patient experience, quality, cost of care, and incentives)

Source: Modified from Tomoaia-Cotisel et al. (2013).

- Oncology APNs working in specific cancer services: (i) area for frequent tumors (e.g., breast, lung, and colorectal) in general hospitals (n = 4); (ii) area for frequent tumors in teaching hospitals (n = 6); and (iii) area for infrequent tumors (e.g., neuroendocrine) or for specific cancer treatment processes (e.g., immunotherapy) in teaching hospitals (n = 4).
- At least three years' experience as APNs, in order to compare mature experiences.
- A maximum of two participants per hospital in order to avoid over-representation of some discourses (Cypress, 2017).

The sample selection and composition were enabled by the provision of a database from a multicenter cross-sectional study carried out in Catalonia by Sevilla et al. (2021), which helped identify 269 APNs in the Catalan Health System, 19 of whom worked in the oncology field. Based on this database, 14 APNs from eight different general (n = 4) and teaching hospitals (n = 10) in cancer care were contacted. We used this database because it is the first and the only study that exists in Catalonia that has made it possible to identify, in a measurable and evidence-based manner, nurses who align with the international requirements to be considered APNs in the context of the study.

Data collection

Before initiating the interviews, the principal investigator (DR) contacted 14 APNs by telephone or email to briefly introduce himself as a nurse and researcher, explain the aims of the study, and invited them to participate. After accepting the invitation, the date and time for the interview were set. The semistrictred individual and lasted for 50 min (on average). DR conducted the 14 interviews; 11 took place in person in a quiet room in the hospitals where the APNs worked, and three were via videoconference (Zoom) due to the circumstances of the pandemic. The encounters followed an interview guide (Supplementary Material), were endorsed by all researchers, and reflected the framework for contextual factors proposed by Tomoaia-Cotisel et al. (2013), as mentioned above.

Ethical considerations

The study was approved by the research ethics committee of the Bellvitge University Hospital (PR241/22). Prior to each interview, participants were informed that it would be recorded; that all personal data and information provided would be confidential and used exclusively for this study; and that only the research team would have access to the data. The consent form was formally handed out and signed before starting the interview.

Data analysis

All interviews were audio-recorded and transcribed verbatim by the DR following the criteria of data confidentiality; the recording and transcript were compared to check veracity repeatedly. The first and second authors (DR and JP) conducted the analysis. Two researchers (DR and JP) independently coded and categorized all data by means of thematic analysis (Berenguera Ossó et al., 2014), using ATLAS.ti 9 software. They verified the congruence of the coding and the interpretation by reviewing the transcripts in both the preanalytical and analytical phases. Categorization was based on the five domains of the framework for contextual factors proposed by Tomoaia-Cotisel et al. (2013) (Table 1). All researchers discussed the preliminary results. Data collected during the interviews appeared to have reached saturation as no new themes emerged.

Rigor and trustworthiness

We followed the four principles identified by Lincoln and Guba (1985) and highlighted by Bradshaw et al. (2017) for qualitative description research. To address transferability and confirmability, we provide a rich description of the sample and study setting. The characteristics of the participants are included. Likewise, to reinforce confirmability and credibility, a thick representation of quotations is presented to illustrate the finding, the data were analyzed independently by two authors (DR and JP), who reached a consensus on the themes. The interview script was consulted and discussed among all members of the research team, ensuring their validity and relevance, considering that the second author is a senior researcher in qualitative methods and the third is an expert in the field of advanced practice nursing. There was no relationship between the participants and researchers.

RESULTS

Fourteen oncology APNs from regional teaching and general hospitals were included. Most were women, and half were aged 40 to 49 years. Overall work experience as a registered nurse ranged from 6 to 20 years. All of them had a master's degree in oncology nursing (Table 2). The results were structured in five categories based on Tomoaia-Cotisel et al.'s (2013) framework for contextual factors and summarized in Table 3.

Practice

Participants described their scope of clinical practice as being delineated according to the specificities of the local conditions, the field of clinical practice, the specific needs of each organization, and the constantly changing needs they define together with their multidisciplinary teams (MDTs). They reported that their job title depends on the hospital or service where they work. For example, only a few participants held the title of advanced practice nurse in their organization.

> "My job title changes in every hospital I work in. In practice, we're advanced practice nurses, but every [center] does it their own way." (Participant 9)

Regarding the details of the job description, half of the participants reported having a document that formalized their functions and activities (e.g., standardized job description). Most indicated that the range of activities and functions was commonly defined only after years of work when experience and practice enabled them to defend and shape the role they play.

> "It was done backwards: first the jobs were created and then the roles were defined based on what you were doing." (Participant 12)

TABLE 2 Characteristics of the sample (n = 14).

Variable	n	(%)
Gender		
Women	13	93%
Men	1	7%
Age group, years		
26–29	1	7%
30–39	–	–
40–49	7	50%
50–59	4	29%
60–64	2	14%
Academic degree		
Master's degree in oncology nursing	14	100%
Master's degree in advanced practice nursing	4	29%
PhD student	2	14%
Hospital setting		
General hospital	4	29%
Teaching hospital	10	71%
Clinical practice field		
Breast	3	21%
Lung	3	21%
Neuroendocrine	1	7%
Immunotherapy	1	7%
Colorectal	2	14%
Transplant of hemopoietic progenitors	1	7%
Multiple myeloma	1	7%
Genitourinary	2	14%
Overall experience as a registered nurse		
6–10	2	14%
11–20	4	29%
> 20	8	57%
Years in current position		
0–5	4	29%
6–10	4	29%
11–20	6	42%

Participants reported that the degree of autonomy and responsibilities in clinical practice differed even within the same center. They explained that this competency is likely to be closely related to the needs, support, and boundaries established jointly with the MDTs. The existence of clinical protocols was described as a positive element for clinical practice that has allowed some APNs to work with greater autonomy and systematization, and such tools were more frequent among the participants in teaching hospitals.

> "With the team you work with, you define and organize how to act in a specific clinical situation, because there are patterns that are repeated

TABLE 3 Findings for contextual factors.

Domains Level specific	Contextual factors
1. Clinical practice	- Role clarity: job title consensus and job description (core competencies, tasks, functions, and scope of practice) at the hospital level - Definition of specific professional training path - Need for mentorship programs - Flexibility and support by the MDT for role development - Interdisciplinary work (joint establishment of clinical protocols)
2. Larger organizational context	- Lack of accountability of the role (outcomes/impact) - Lack of professional networking (professional isolation, lack of interaction) - Nursing managers' support and commitment - Logistical and financial resources - Opportunities for professional development in place - Nursing union opposition
3. External environment	- No scientific nursing associations playing a role in the development of the APN roles - Lack of networks at local or national level in the advanced practice nursing field - No regional or national APNs reference core competency standards in cancer care
Cross-cutting theme	
4. Implementation pathway	- Acknowledgment of the APN role by the MDT
5. Motivation for implementation	- Absence of a strategic or well-structured plan

> in patients. So protocolizing it makes it much more fluid and thus also greatly enhances the independence of nursing." (Participant 13)

On the other hand, they indicated that no specific training path has been established regionally or nationally for APNs. The educational trajectory was described as unspecific and marked by great personal effort. Several also indicated the need to have a mentor or reference nurse whom they could call on for support and/or guidance. In addition, they said that because their degree of autonomy and responsibilities vary, it was difficult to carry out training or clinical practice stays that could help deepen their knowledge and ties in the professional field.

> "We can't create synergies with other places because the roles are completely different, so we're here and we help each other out, and the training we can do is rather external. I did the advanced practice master, and because of everything you lack and what you have learned on a day-to-day basis, sometimes we learn through blows and experience, but I lacked the scientific basis for what we do." (Participant 1)

Larger organization context

Participants described nursing and care management units as the main bodies responsible for introducing their position, playing a fundamental role in planning and control at the organizational level. However, half of them felt that they had not received specific support for performing their work, although neither had it been hampered. Few participants indicated having a specific coordinator, who was described as a newly created figure.

At the same time, none of the participants indicated that they had a formal accountability mechanism for their activity as APNs. This fact is critical, because for several of them, being able to demonstrate the added value of their work was important. They indicated their real workload is not fully reflected, in the sense that some of their clinical tasks (triage, referrals) along with their coordination, research, and educational activities were generally not recorded as such.

Likewise, the participants felt that their professional development at the organizational level was conditioned by the value that their nursing managers assigned to their role. They reported that any changes at the institutional level could affect their work positively or negatively in terms of the support or the resources available to them; for example, some reported feeling professionally undervalued due to the lack of physical resources, such as a work office. However, the point of inflection for them with regard to their professional recognition has been the increasing demand, working hours, and workload, which is not matched by their remuneration. Only 3 of the 14 participants indicated that they received some type of salary bonus for the position they held.

On the other hand, in terms of the prerequisites to work in the position, most participants took on their current role more than 10 years ago, and their hiring processes were not based on a specialization that specifically qualified them for a job as an APN. They did mention, as a nonexclusive requirement, having had previous postgraduate training. However, they pointed out that for new posts, their health organizations had already begun to request specific requirements, including appropriate postgraduate training at the very least. However, some participants highlighted that the unions set limits when trying to define an APN profile.

> "When I started in the breast unit, they asked for a nurse, we did an interview, but there was nothing in writing about what they asked for. Now, yes, we have what is called a job description, and when there is a job vacancy, our hospital is beginning to consider it." (Participant 8)

A final relevant point is the low degree of professional relationships that exist between APNs at the hospital level. Just a few of the participants reported having some type of periodic contact with other APNs at the same institution (e.g., monthly meetings and training sessions). Most did not have any support from their managers for creating professional bodies at the organizational level that could facilitate their interaction. Participants noted an absence of organized clinical meetings and training processes that could help to generate links and benefits in terms of learning, networking, and greater synchronization in professional tasks. On the other hand, some of them happened to share an office with other APNs, a fact that was described as a positive and highly valued opportunity to facilitate constant interaction.

> "What we do informally is that I share my office with four more colleagues, and sometimes when you have a clinical case or a specific situation in a patient, this space allows you to comment and discuss it with them." (Participant 1)

External environment

Only the participants who worked in areas dedicated to infrequent tumors or an oncological therapeutic process in teaching hospitals indicated that they actively participated in a working group at the local level or a professional network at the national and/or international level, and only half of these were directly related to advanced practice. A few mentioned some occasional contacts with an external working group and/or with a professional network at the local or national level, and a significant share of the participants reported not having any type of professional contact at an external level that was related to advanced oncology or nononcology practice. Indeed, many were unaware of the existence of possible professional networks in their specific field of development.

> "I always pay a lot of attention to the Australians. I always look into what they're doing, because here I have few references." (Participant 13)

Implementation pathway

The experiences of APNs who started more than 10 years ago differ from those who started more recently. The former followed a long road to achieving the level of advanced practice they perform today. In their stories, they often refer to hard beginnings and fighting for the definition of their innovative role. The generalized lack of awareness and clarity about their role and its functions meant that most had to start out by proving themselves and the value of their work as APNs within the MDTs and among the nursing profession.

> "My beginnings were really tough. My fellow nurses boycotted me and so did the doctors because they expected something they sometimes confused with administrative assistance, with helpfulness." (Participant 2)

In contrast, the participants with more recent experience did feel supported and integrated into the MDTs from the start. In fact, it was not uncommon for their medical colleagues to be the ones to request an advanced practice nurse from the nurse management and to recognize them as a fundamental and irreplaceable member of the MDT. In addition to their added value as APNs, many have also assumed clinical tasks that were traditionally provided by physicians. In fact, the participants described a positive relationship with physicians and linked the support from the MDTs with the integration and long-term sustainability of their role.

> "My current experience [proves that] If the service behind you doesn't believe in you, it won't allow you to grow." (Participant 7)

Motivation for implementation

Regardless of the care context, only the participants who had started as APNs in the previous five years reported that the implementation of their role was associated with specific objectives related to a clear scope of practice. On the contrary, the vast majority began to work under coordination objectives related to generic care processes in terms of the disease or highly focused on case management functions, which over time evolved into advanced practice forms. This fact is reflected in the hiring processess which were not very specific until recently in terms of the competencies requested or the activities and/or functions to be carried out.

> "First, it all began as a circuit where I coordinated unit operation and patient access to rapid diagnosis, but little by little over the years, more and more functions started falling on me to do." (Participant 10)

DISCUSSION

The findings show that the organization, implementation process, and performance of clinical practice among APNs working in cancer care in Catalonia (Spain) are strongly context dependent. In this sense, the hospital environment where they are introduced shapes their job title, professional profile, available resources, type of support, and recognition.

Likewise, the relationship with the multidisciplinary team is a key factor determining the level of APNs' autonomy. The influence of the immediate environment could also be accentuated by the absence of external and local scientific and/or professional networks in the field of advanced practice nursing. Moreover, the results highlight several contextual factors with the potential to facilitate or hinder the implementation process of APNs in cancer care (Table 3).

The implementation of oncology APNs in Catalonia took place in the absence of strategic planning criteria or following international recommendations. This void left the door open to the influence of other factors, also described elsewhere, for example, the confusion related to the absence of a title, job descriptions, or scope of practice, with effects on patients and other professionals as well as on APNs themselves (Casey et al., 2019). Likewise, the low level of interaction among APNs, often in a context of macro hospital services, points to the lack of both on-the-job mentoring experiences and their potentially positive impacts on APNs' career development, job satisfaction, and patient outcomes (Ann de Villiers et al., 2019). This study adds new insights into how the APN role is evolving in Spain and the complex interplay of multiple local contextual factors that influence the development of the role, beyond any specific government support or top-down approach at the country level.

Our findings support the need to implement policy strategies that tackle the variability observed in APN practice. Firstly, nursing organizations must pursue consensus-based regulations and the development of regional and/or national APN models that can be implemented in all centers. This process should bring to light the opportunity costs derived from maintaining the highly atomized status quo, taking into account the high degree of corporatism and trade union pressure that characterize the nursing profession in Catalonia and Spain. This change cannot be made by the oncology community alone; it must be done by the nursing profession in general. In the process of defining the APN role, international experiences can be instrumental, informing the design of a nationally agreed model, shaping the core concepts of advanced practice nursing, and setting an example for competency mapping or activity analysis tools (Schober, 2017). For instance, the Consensus Model for APRN (Advanced Practice Registered Nurse) regulation in the United States illustrates how collaboration, agreements, and representation of nursing leaders and professional organizations at a country level can contribute to regulating the integration of APNs nationwide (Stanley et al., 2009). Health authorities should be involved in this process as well, serving as guarantors and exercising indirect control through what has been called "regulated trust" (Mesman et al., 2017). Indeed, a model for APNs has recently been proposed in Catalonia (Sevilla Guerra et al., 2023).

Secondly, the reality of each cancer disease has a specific weight, but MDTs are important for all of them. In line with the results of the present study, the most viable political strategy for the development and recognition of oncology APNs may be to formalize and protect their functions within MDTs. Thus, as proposed by Serena et al. (2018) for the oncology field, clarification of the oncology APN role could be a driver for defining the tasks and scope of practice among all the different professionals involved in cancer care. In turn, scientific societies related to both cancer care and the cancer plan must prioritize the APN perspective, in the same way that they demanded the formalization of the MDTs over a decade ago (Prades et al., 2015). One way or another, any implementation or updating process that takes place at the meso-management level—led by nursing managers and directors—would be conditioned by having a previously agreed-upon consensus model, as outlined above.

Third, participants described the lack of an accountability mechanism for their work as APNs. Yet, investing in outcome evaluations for this role is vital and lends support to the rationale for their implementation and development (Unsworth et al., 2022). Supporting new research on the effectiveness of APNs is worth considering. For example, in Ireland, demonstrating the impact of improving access to health services provided by APNs in chronic care helped to reinforce the national rollout of the model to the nursing workforce (Brady Anne Marie et al., 2022). Research should thus be understood as an investment to enhance long-term progress and sustainability.

Finally, the academic qualifications needed by APNs must be considered. At the international level, the ICN considers postgraduate training to be a basic requirement for the proper development of APNs, with a master's degree being the minimum recommended as entry level to practice (ICN, 2020). Although all of the participants in the present study had the minimum master's level education required, some of them described that 10 years ago their hiring processes were not always based on a specialization that specifically qualified them for a job as oncology APNs. The relatively recent participation of nurses in specialty education, master's degrees, and the recent integration of advanced practice nursing master's programs in the last five years in Spain have all greatly enhanced the conceptualization of advanced practice nursing and generated local examples and evidence for this level of practice in Spain (Sevilla Guerra et al., 2021). Even the failures seen around critical local events can be viewed as opportunities for sensitive discussion and learning about how to avoid similar situations in the future and to increase the odds of successfully realizing complex transformations in health care (Best et al., 2012). Therefore, local and national efforts are needed to develop a regulatory framework that standardizes the minimum academic requirements for APNs in oncology and other healthcare settings, establishes the basis for cogent regulations that protect both patients and providers, and lays the groundwork for national and international benchmarking.

LIMITATIONS

Regarding the limitations of our study, first, the existence of oncology APNs in Catalonia is currently limited to highly specialized hospital contexts, so experiences in the oncology field in remote or rural areas are not represented, nor

are the different contextual factors that could emerge from these contexts. Second, we did not seek the perspectives of patients, nursing managers, decision-makers, or policymakers in the field of cancer, which could have complemented the exploration of contextual factors. Despite these limitations, the results of the study underscore the importance of considering the influence of the healthcare and scientific context in the integration of APNs into the health workforce.

CONCLUSIONS

Understanding the local contextual factors surrounding the development and implementation of oncology APNs has brought to light critical factors around the practice, organizational, and scientific context that hinder the implementation process in Catalonia. These findings can provide the basis for effective workforce planning and the incorporation of a highly specialized professional who brings great added value in a dynamic context. Policy strategies need to address the main contextual factors, such as establishing a consensus on basic concepts and practice standards for APNs as a new role in the health system. Policies should also tailor implementation processes to the specific clinical field of interest, such as oncological care. Our results can serve to inform other countries where APNs have just been introduced on the need to consider the complexity of the process and on the key aspects needed for a successful implementation process.

Implications for nursing policy

Translating our results and the strategic knowledge generated therein into local contexts could support regulatory and implementation processes for APNs. Our study reflects a reality in which hospital managers, teams, and nursing managers are key stakeholders whose involvement in planning will condition the successful implementation and integration of APNs into the healthcare system, insofar as APN roles should always be tailored to the specific context where they operate. National nursing organizations can make strong contributions in that regard, defining standards of practice and advocating for formal regulation and policy dialogue. Also, from an early stage of development, it is vital to invest in assessing the impact of the APN role on patient outcomes and health systems. This could facilitate financial recognition, long-term sustainability, satisfaction, and regulation of APNs.

AUTHOR CONTRIBUTIONS

Study design: Darinka Rivera, Joan Prades, Sonia Sevilla Guerra, Josep M. Borras. *Data collection*: Darinka Rivera. *Data analysis*: Darinka Rivera, Joan Prades. *Study supervision*: Sonia Sevilla Guerra, Josep M. Borras, Joan Prades. *Manuscript writing*: Darinka Rivera, Joan Prades, Sonia Sevilla Guerra, Josep M. Borras. *Critical revisions for important intellectual content*: Darinka Rivera, Joan Prades, Sonia Sevilla Guerra, Josep M. Borras.

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CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by the authors.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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