UNIVERSITAT DE BARCELONA

Estat de situació del desenvolupament de la Pràctica Avançada Infermera en la cura del pacient oncològic a Catalunya

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Tesi Doctoral

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Facultat d'Infermeria

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Memòria presentada per optar al grau de doctor per la Universitat de Barcelona

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Als meus pares

Agraïments

Iniciar una tesi doctoral és iniciar un camí amb moments d'incertesa, dificultats, dubtes i un cert desànim davant un propòsit personal plantejat, però què seria la vida sense els més petits o grans reptes?

Malgrat tot, a mesura que fas aquest camí també hi ha moments d'alegria i satisfacció per les petites fites aconseguides, un camí d'aprenentatge, creixement, coneixement, experiència, bagatge i vivència.

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CAMINANTE NO HAY CAMINO

Caminante, son tus huellas
el camino y nada más;
Caminante, no hay camino,
se hace camino al andar.
Al andar se hace el camino,
y al volver la vista atrás
se ve la senda que nunca
se ha de volver a pisar.
Caminante no hay camino
sino estelas en la mar.

Antonio Machado

Índex

Introducció

Les infermeres de pràctica avançada (IPA) tenen un paper fonamental en la cura del pacient oncològic. Aspectes com un coneixement clínic avançat i expert, habilitats per la presa de decisions complexes i competències clíniques ampliades capaciten les infermeres de pràctica avançada a exercir una pràctica clínica amb un alt grau d'autonomia i responsabilitat.

L'augment de la incidència i prevalença de les persones afectades de càncer i les seves necessitats assistencials, tenint en compte el context social, econòmic i cultural per una banda, i l'augment en la complexitat de l'abordatge en el diagnòstic i tractament oncològic per l'altra, requereixen de noves estratègies en polítiques sanitàries, amb una planificació i organització diferent entorn el pacient amb càncer, per tal de proveir serveis efectius, eficients i de qualitat.

Les infermeres de pràctica avançada oncològica tenen les competències per donar resposta a les necessitats que presenta el pacient oncològic al llarg de tot el procés de de malaltia, afavorint les millors pràctiques basades en evidència dins d' equips multidisciplinaris i a través de rols funcionals com a experta clínica i investigadora. Això contribueix en l'augment de la qualitat de vida dels pacients, en la satisfacció, així com en la millora dels resultats sensibles de la pràctica infermera.

A nivell internacional la implantació i desenvolupament de rols infermers de pràctica avançada és desigual, amb una variació dels rols, responsabilitats, títols, formació i legislació. Aquests rols s'han desenvolupat en funció de les necessitats de les organitzacions, dels entorns de la pràctica o dels atributs individuals de les infermeres, per tant, factors contextuals han determinat el seu desenvolupament.

A Catalunya, s'han desenvolupat rols que es podrien considerar de pràctica avançada com serien les infermeres gestores de casos, però es desconeix l'abast del desenvolupament d'aquests rols i del seu impacte en la salut dels pacients i de la població en general. Tot i que s'ha realitzat estudis en els últims anys, encara hi ha poca evidència en relació al desenvolupament de la pràctica

avançada infermera i encara menys de manera específica en l'àmbit oncològic, el que motiva la realització d'aquesta tesi doctoral.

L'objectiu de la tesi és identificar el nivell de desenvolupament de la pràctica avançada infermera en la cura del pacient oncològic i de manera específica: (1) identificar el grau de desenvolupament de les competències de les infermeres de pràctica avançada en càncer, (2) conèixer l'experiència de les infermeres de pràctica avançada en el desenvolupament del rol i els factors que l'afavoreixen i el dificulten, (3) conèixer l'experiència dels professionals dels equips multidisciplinaris en vers la infermera de pràctica avançada i (4) conèixer l'experiència del pacient oncològic en relació a les cures proporcionades per les infermeres de pràctica avançada.

Metodologia

Per donar resposta als objectius plantejats s'han realitzat tres subestudis: 1) estudi amb tècnica Delphi per obtenir el consens dels experts respecte a les competències desenvolupades per les IPA oncològiques; 2) estudi qualitatiu fenomenològic amb tres grups focals amb IPA; 3) estudi qualitatiu fenomenològic amb entrevistes en profunditat amb pacients i professionals d'equips multidisciplinaris.

Resultats

En el primer estudi es va assolir un consens >75% en la definició dels dominis competencials en ambdues rondes. En la primera ronda, en relació amb el desenvolupament de competències per part de les IPA, el 57.77% de les competències definides no va assolir el nivell de consens, mentre que en la segona va ser del 62,2%.

Els dominis de pràctica clínica directa, consultoria i col·laboració i relació interpersonal van tenir una proporció més elevada de competències que van superar el 75% en relació al seu desenvolupament. Mentre que dimensions com promoció de la salut, millora de la qualitat, pràctica basada en l' evidència o recerca, cap competència d'aquests dominis competencials va assolir el grau de consens acordat.

Les dificultats identificades pel desenvolupament de les competències van ser: necessitat de formació, manca de recursos, manca de temps, capacitat de lideratge, càrregues assistencials o el suport de les institucions.

En el segon estudi, van emergir 3 categories: (1) *Rol desenvolupat*, (2) *Elements facilitadors i barreres en la implementació del rol* i (3) *Vivència del rol.*

I respecte al tercer, van emergir 3 grans categories amb subcategories: (1) *Rol i competències*, en el que tant pacients com professionals van identificar les funcions realitzades per les IPA, (2) *Beneficis que aporta la IPA* i (3) *Aspectes rellevants en les cures infermeres.*

Conclusions

S'evidencia un desenvolupament competencial de les infermeres de pràctica avançada incomplet, identificant-se les dificultats relacionades amb aquelles competències no desenvolupades que permeten identificar estratègies en la implementació de rols d'infermers de pràctica avançada en càncer.

Les infermeres de pràctica avançada són conscients que no desenvolupen el rol en tota la seva amplitud i han identificat facilitadors i barreres. Malgrat les dificultats presenten una actitud positiva, així com una capacitat de lideratge que els ha permès posicionar-se en el rol de pràctica avançada en ambients poc favorables.

La IPA te un paper clau en la cura del pacient, té un pes dins els equip i és indispensable i es un peça fonamental en la gestió del procés assistencial del pacient

La implantació de rols de pràctica avançada és un fet a Catalunya, però es fa necessari l' elaboració d'un marc de competències i estàndards de la pràctica. També caldria disposar d'un entorn regulatori professional, així com de formació específica per a l'acreditació formal d'aquests rols, tant a nivell legal com professional.

Abstract

Introduction

The increase in the incidence and prevalence of cancer, along with the subsequent surge in care needs, interact with both the social, economic, and cultural context, on the one hand, and with the increased complexity in the approach to oncological diagnosis and treatment, on the other. This situation requires new health policies and strategies to improve planning and organization of cancer care and provide effective, efficient, high-quality services.

Today, advanced practice nurses (APNs) play a fundamental role in caring for cancer patients. Their advanced and expert clinical knowledge, complex decision-making skills, and expanded clinical competencies enable these nurses to have a high degree of autonomy and responsibility in clinical practice. Oncology APNs have the skills to respond to cancer patients' needs throughout the entire disease process, promoting evidence-based best practices within multidisciplinary teams and playing functional roles as clinical experts and researchers. Their work contributes to increasing patients' quality of life and satisfaction, as well as to improving outcomes that are sensitive to nursing practice.

At an international level, the implementation and development of advanced practice nursing roles is uneven, with variability in roles, responsibilities, titles, training, and legislation. These roles have been developed based on organizational needs, practice environments, or individual attributes of nurses, that is, contextual factors have determined their development.

In Catalonia, some established nursing roles could be considered advanced practice, such as nurse case managers, but the extent of the development of these roles and their impact on the health of patients and the general population is unknown. Although some studies have been published in recent years, there is still little evidence on the development of advanced nursing practice in general or on the oncological field in particular. This gap in knowledge represents the rationale for the present doctoral thesis.

This thesis aims to characterize the level of development of advanced practice nursing in cancer care. Specific objectives are to: (1) assess the extent of development of the competencies of oncology APNs; (2) understand APNs' experiences in implementing their role and the factors that favor and hinder it; (3) understand the experiences of professionals from multidisciplinary teams in relation to APNs; and (4) understand the experiences of cancer patients in relation to the care provided by APNs.

Methods

To fulfil the research objectives, three substudies were performed: 1) a study with the Delphi technique to reach an expert consensus on the competencies of oncology APNs; 2) a qualitative phenomenological study with three focus groups of APNs; and 3) a qualitative phenomenological study with in-depth interviews of patients and multidisciplinary professionals.

Results

In the first study, over 75% of the Delphi respondents reached a consensus on the definition of the competency domains in both consultation rounds. However, in relation to whether specific competencies under those domains were performed by the APNs in practice, 57.8% of the defined competencies did not reach the level of consensus in the first round, while in the second the proportion was 62.2%. A higher proportion of competencies in the domains of direct clinical practice, consulting, and collaboration and interprofessional relationships yielded a consensus of 75% or more in terms of their implementation, whereas respondents did not reach sufficient agreement that any of the competencies in the domains of health promotion, quality improvement, evidence-based practice, and research were being applied in advanced nursing practice. The barriers identified for the implementation of different competencies were: insufficient training, limited resources, time constraints, leadership skills, care burdens, and lack of institutional support.

In the second study, three categories emerged around APNs' experiences: (1) role performed; (2) facilitators and barriers in the implementation of the role; and (3) lived experience of the role.

Three themes also in the third study in patients and multidisciplinary professionals: (1) APN role and competencies, where both patients and professionals identified the functions performed by the APN, (2) benefits provided by the APN; and (3) relevant aspects of nursing care.

Conclusions

The implementation of advanced practice nursing competencies is clearly incomplete. The difficulties identified in relation to the under-developed competencies help elucidate what strategies could be useful in the implementation of the APN role in cancer. APNs are aware that they do not perform their role to its full potential, and they describe different facilitators and barriers. Despite the difficulties, they present a positive attitude as well as a capacity for leadership, which has allowed them to consolidate the advanced practice nursing role in unfavorable environments.

The APN has an essential role in patient care, is an important member of the multidisciplinary team, and has an indispensable function in the management of the patient's care process. The implementation of advanced practice roles is a reality in Catalonia, but the development of a competency framework and practice standards is necessary. It would also be necessary to have a regulatory environment for the profession, as well as specific training for the formal accreditation of these roles, both at a legal and professional level.

1. INTRODUCCIÓ

1.1. Epidemiologia del càncer

El càncer es una de les malalties més freqüents en el món, la seva transcendència ve donada tant per la seva prevalença i incidència, com per la seva elevada mortalitat essent la primera causa de mort en els països desenvolupats (Sung et al. 2021). Tanmateix, cal destacar que els avenços en el diagnòstic i tractament han augmentat la supervivència del malalts afectats (Ferro i Borràs, 2011).

D'acord amb les últimes dades recollides a nivell mundial pel *International Agency for Research on Cancer* (Ferlay et al., 2023), en el 2020 es van registrar 19,3 milions de nous casos de càncer i una mortalitat gairebé de 10 milions de persones per càncer. (Ferlay et al., 2020).

A Espanya, el càncer és també una de les principals causes de morbi-mortalitat. La incidència del càncer en el 2020 va ser de 282.421 persones (les 2/3 parts de malalts ≥ 65 anys). Es preveu que el nombre de càncers diagnosticats a Espanya l'any 2023 arribarà als 279.260 casos, segons els càlculs de la *Red Española de Registro de Cáncer* (REDECAN, 2020a), fet que suposa una estabilització respecte a l'any anterior. No obstant, s'estima que en el 2040 la incidència arribi als 341.000 casos. El creixement de la població i el seu envelliment explicarien fonamentalment aquest increment.

Els càncers més freqüentment diagnosticats a Espanya el 2023 seran els de còlon i recte (42.721 nous casos), mama (35.001), pulmó (31.282), pròstata (29.002) i bufeta urinària (21.694). A més distància, els següents càncers més freqüents seran els limfomes no Hodgkin (9.943), el càncer de pàncrees (9.280), el càncer de ronyó (8.626), el melanoma maligne cutani (8.049), els càncers de cavitat oral i faringe 7.882), i els càncers de cos uterí (7.171), estómac (6.932) i fetge (6.695)(REDECAN, 2020a).

Segons les dades de l'Institut Nacional d'Estadística del 2021 (INE), els tumors van constituir la segona causa de mort a Espanya (25,2% de les morts, 113.662) amb un augment del 0,8% respecte a l'any anterior i només darrere de les malalties del sistema circulatori (26,4% de les morts, 119.196). En homes, els tumors han continuat sent la principal causa de mortalitat a Espanya el 2021 (67.884) i en les dones, la segona amb 45.818 morts. Entre les morts per tumor,

les causes més freqüents en el 2021, com en anys anteriors, van ser els càncers de pulmó, còlon, pàncrees, mama i pròstata (INE).

De manera general, la mortalitat per càncer a Espanya ha experimentat un fort descens en les darreres dècades (IARC, 2023). Aquestes tendències reflecteixen les millores en la supervivència dels pacients amb tumors a causa de les activitats preventives, les campanyes de diagnòstic precoç, els avenços terapèutics i, en homes, la disminució de la prevalença del tabaquisme (SEOM, 2023). La supervivència dels pacients amb càncer d'Espanya és semblant a la dels països europeus occidentals. S'estima que s'ha duplicat en els darrers 40 anys i és probable que, encara que lentament, continuï augmentant en els propers anys (REDECAN, 2020a).

A Catalunya, segons les dades del Pla contra el càncer de Catalunya (2022-2026)(Pla Director d'Oncologia, 2023), durant l'any 2020 la incidència del càncer mostra unes característiques similars a la dels països europeus en aquest període. Els 5 tumors més freqüents a Catalunya (i a Europa) en els homes són pròstata (N=4.396), colorectal (N=3.732), pulmó (N=3.055), bufeta urinària (N=1.865) i ronyó (N=753), suposant el 65% del total de casos diagnosticats durant l'any 2020 en homes (N=21.026). En dones, els 5 primers tumors més freqüents a Catalunya (i Europa) són mama (N=4626), colorectal (N=2701), pulmó (N=975), cos uterí (N=828) i pàncrees (N=504), suposant el 60% del total de casos diagnosticats l'any 2020 (N=16.163) en les dones catalanes. Un 68,3% dels casos de càncer en homes són diagnosticats a partir dels 64 anys, mentre que en dones, aquest percentatge és del 57,6% (Pla Director d'Oncologia, 2023).

Les previsions del Pla contra el Càncer a Catalunya en el període 2022-2026 (Pla Director d'Oncologia, 2023), assenyalen que el nombre d'homes diagnosticats de càncer passarà de 21.436 l'any 2015 casos a 24.382 casos el 2025, en el cas de les dones, el nombre de casos nous augmentarà de 15.619 casos el 2015 a 18.288 casos el 2025. Globalment, suposa un creixement entre períodes del 13,7% i 17,1%, respectivament. Aquest increment és especialment important en tumors de pròstata (718; 16,5%), colorectal 600; 15,7%), pulmó (433; 13,3%) seguits de ronyó (210; 34,3%) i fetge (191; 25,4%). En les dones, destaca per sobre d'altres tumors l'increment el càncer de mama (787; 16,6%) seguit de colorectal (420; 19%), pulmó (280; 27,3%) i melanoma (181; 41%).

Igual a que a Espanya, l'increment de casos s'associa a l'envelliment de la població, a la mida de la població i al risc de desenvolupar càncer.

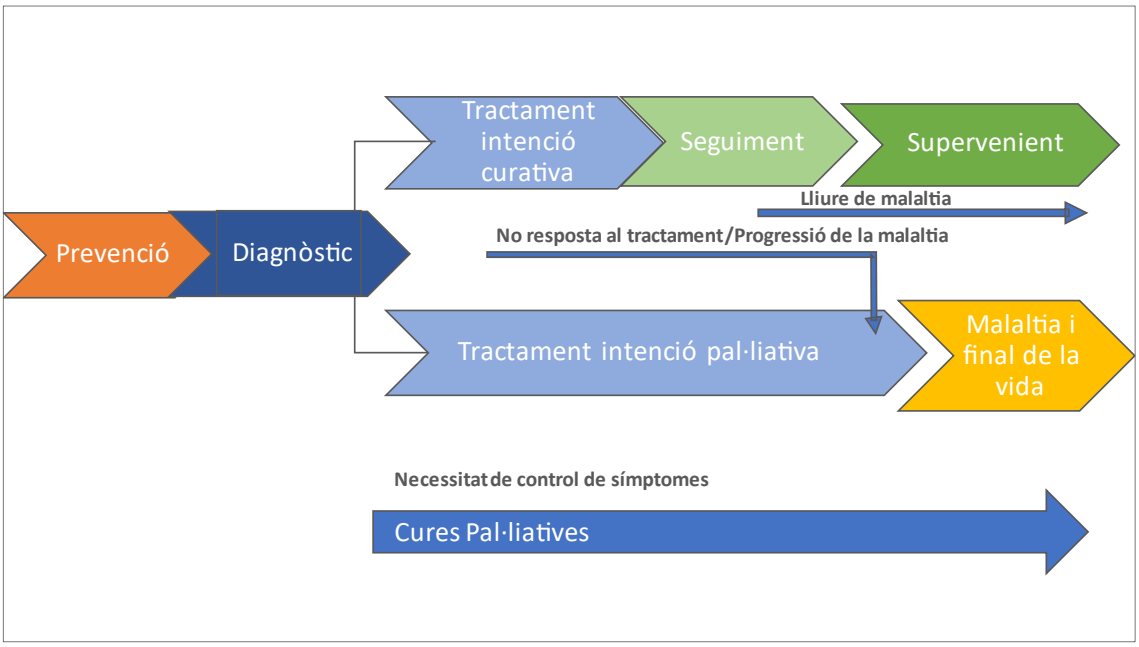
En quant al pronòstic dels pacients, la supervivència relativa als 5 anys dels principals tumors malignes diagnosticats a Catalunya durant el període 2010-2014, mostren que les dones tenen una millor supervivència al càncer que els homes, 62,7% i el 53,9%, respectivament (Pla Director d'Oncologia, 2023; REDECAN, 2020b; REDECAN 2020c)

En relació a les dades estimades, a Espanya i Catalunya, igual que a nivell mundial, la realitat pot ser lleugerament diferent, cal tenir en compte el possible efecte de la pandèmia per coronavirus (COVID 19).

1.2. El procés de la malaltia

El procés d'atenció al pacient oncològic pot arribar a ser un llarg trajecte en el temps, tenint en compte els processos diagnòstics i les diverses teràpies que es requereixen així com l'evolució de la pròpia malaltia. Aquest procés s'inicia amb l'aparició del primer símptoma o una sospita de la malaltia, el diagnòstic seguit del tractament fins l'etapa del seguiment de la malaltia o la progressió d'aquesta. Hi haurà un nombre de pacients en tractament que no es curaran, altres sí, d'aquests alguns posteriorment recauran, i molt possiblement rebran altres línies de tractament fent que aquesta malaltia es cronifiqui, ja que en aquests casos la supervivència d'alguns d'aquests pacients pot ser d'anys (Ferro i Borràs, 2011) (Figura 1).

Figura 1. Procés malaltia oncològica



Font: Elaboració pròpia

En l'atenció oncològica cal tenir en compte aspectes que donen una consideració de complexitat, tant sigui per el diagnòstic d'una malaltia que és greu i que pot ser mortal en un percentatge important de pacients, el nombre de persones afectades, l'agressivitat dels tractaments, els símptomes lligats a la malaltia, la durada en el temps del procés assistencial i l'impacte que té en la vida de les persones afectades i de les seves famílies (Hart et al., 2022, O'Dea et al., 2022). Tanmateix en funció de com es realitzi aquest procés i l'atenció que rebrà el pacient en cada etapa de la malaltia, incidirà tant en els resultats del tractament com en el pronòstic (Hanna et al.,2020) així com en la qualitat de vida del pacient i la família (Alam et al., 2020; Cochrane et al., 2022; Damen et al., 2022; Guan et al., 2020; Hui i Bruera, 2020).

En funció de l' etapa de la malaltia que es trobi el pacient, aquest tindrà diferents necessitats assistencials que podran estar lligades al procés diagnòstic (necessitats d'informació, maneig de la incertesa) , als tractaments (toxicitat), maneig i les seves seqüeles per exemple en els llargs supervivents (Emery et al., 2022), o bé a símptomes (dolor, dispnea, la fatiga o l'ansietat) per exemple lligats a l'evolució de pròpia malaltia. També cal tenir en compte l'etapa vital (infantesa, adolescència, joventut, maduresa o vellesa) en que està el pacient

que determinarà també aquestes necessitats assistencials (Molassiotis i Wang, 2023; Snaman, 2020).

A més és rellevant la repercussió que pot tenir la malaltia en aspectes emocionals, socials i familiars. Per això les necessitats dels pacients i l'atenció inclouran aspectes tant a nivell físic, psicosocial com espiritual (O'Dea et al., 2022; Paterson et al., 2023; Wisesrith et al., 2021)

En conseqüència serà fonamental com es realitzen les cures i com es brinda l'atenció al pacient, per exemple, en el control de símptomes i la prevenció de complicacions, en com el pacient afronta la malaltia, l'autocura o l'adherència al tractament.

Diferents professionals: infermeres, oncòlegs, oncòlegs radioteràpics, cirurgians, nutricionistes, psicòlegs, fisioterapeutes, treballadors socials, etc. intervindran al llarg de procés oncològic del pacient, des del diagnòstic, passant pels diferents tractaments i el seguiment de la malaltia. En el cas de que un pacient no sigui candidat a un tractament oncoespecífic, degut a que la malaltia ha avançat o bé, pel seu estat físic, aleshores, el tractament anirà dirigit al control dels diferents símptomes que aniran apareixent i al confort d'aquest pacient.

Per donar resposta als reptes actuals com el creixent augment de població afectada a nivell mundial, tant per un increment de la incidència com de la supervivència d'aquesta patologia (IARC, 2023), la complexitat assistencial del pacient oncològic en l'abordatge i els avenços en el tractament del càncer així com el canvi de paradigma cap una atenció centrada en la persona (Mitchell et al., 2020), l'atenció assistencial del pacient amb càncer requerirà de noves estratègies. Es a dir, aquest escenari requerirà de canvis organitzatius en l'atenció del pacient oncològic i l'aparició de nous rols assistencials per proporcionar una atenció eficient i eficaç al llarg de tot el procés assistencial i de la malaltia millorant la salut de les persones i la qualitat de l'assistència prestada (Blakely i Cope, 2015; Borràs et al., 2014; Hylton & Smith, 2017; Winters et al., et al., 2021).

S'ha evidenciat que el treball en equips multidisciplinaris permet una atenció més especialitzada, una millor coordinació i facilita la comunicació entre les diferents professionals i els pacients, aportant una millora en el processos de diagnòstic, planificació dels tractaments i els resultats en els pacients en termes de salut (Muñoz et al., 2018; Prades et al., 2015; Selby et al., 2019) i facilita una

assistència centrada en el pacient, més eficient i de qualitat (Borràs et al., 2014; Selby et al., 2019; Winters et al., 2021).

En l'aparició de nous rols assistencials s'identifiquen rols infermers de pràctica avançada (Prades et al., 2015; Serena et al., 2018; Westman et al., 2019).

Les cures infermeres que precisa el pacient oncològic al llarg de la seva malaltia, són diverses i a la vegada complexes, una atenció holística i les intervencions infermeres aniran adreçades millorar el benestar y donar resposta a les necessitats dels pacients (Tuominen et al., 2020), pel que requereix professionals infermers amb un alt grau d'especialització i expertesa per atendre aquest tipus de pacients. Les infermeres de pràctica avançada (IPA) desenvolupen les competències necessàries per a donar resposta a las necessitats d'aquest tipus de pacients en les diferents etapes de la malaltia, afavorint les millors pràctiques basades en evidència dins d'equips multidisciplinaris i a través de rols funcionals com a experta clínica i investigadora (Baileys et al., 2018; Coombs et al., 2020; Greedy, 2022; Yates et al., 2021).

Es tracten de rols avançats infermers, amb un elevat coneixement i expertesa, amb més autonomia en les cures i un àmbit de competència ampli (Baileys et al., 2018; Coombs et al., 2020). Dins dels equips multidisciplinaris, la infermera de pràctica avançada (IPA) s'identifica com una professional referent durant tot el procés assistencial, proporcionant coordinació en el seguiment clínic, suport psicosocial i educació sobre l'autocura al pacient (Cook et al., 2017; Greedy, 2022; Kerr et al., 2021; Serena et al., 2018). Gestiona les toxicitats i efectes secundaris relacionats amb el tractament oncològic. A més, permet garantir la continuïtat assistencial i facilita la transició del pacient en el sistema assistencial i la comunicació entre l'equip multidisciplinari i el pacient (Davies, 2022; Dempsey et al., 2016; Prades et al., 2015).

1.3. La Infermera de Pràctica Avançada

La figura de la infermera de pràctica avançada (IPA) va néixer en els anys 60 ens els Estats Units per donar resposta a les necessitats assistencials no cobertes en l'atenció Primària, on hi havia una dificultat per part de la població en accedir a l'assistència sanitària. Des d'aleshores aquests rols han anat evolucionant en altres àmbits com l'atenció aguda, urgències i altres especialitats

(ICN, 2020). Posteriorment altres països com el Canadà, Austràlia o el Regne Unit entre altres han implementat aquesta figura (Delamaire i Lafortune,2010).

Aquesta evolució ha anat lligada als canvis dels sistemes de salut per adaptar-se y satisfer les noves necessitats lligades als canvis demogràfics, com seria l'envelliment de la població, però també satisfer les expectatives dels usuaris, sorgint oportunitats per les IPA de nous rols professionals (Delamaire i Lafortune,2010).

Pel que el rol professional de la IPA ha sorgit com una solució innovadora a aspectes com els canvis en les necessitats de salut de la població (Bryant-Lukosius et al. 2017; Goryakin et al., 2020; Tracy & O'Grady, 2019; Wheeler et al., 2022), donar resposta a la manca de metges i per la necessitat de millorar: l'accessibilitat a l'assistència, la capacitat dels proveïdors d'assistència sanitària, el cost-efectivitat dels serveis sanitaris i la qualitat i coordinació de l'assistència, així com també millorar les perspectives professionals de les infermeres (Delamaire & Lafortune, 2010; Gaskell &Beaton, 2015). Les IPA aporten un elevat grau de coneixement, expertesa i autonomia en les cures, tenen habilitats clíniques i judici clínic que milloren la prestació de l'atenció, fruit de la seva formació i experiències pràctiques (Hutchinson et al., 2014; Krishnasamy et al., 2021; Sánchez-Gómez et al., 2019).

1.3.1. Definició de la Infermera de Pràctica Avançada

Segons el Consell Internacional d'Infermeria (ICN, 2008a): "Una infermera de pràctica avançada (IPA) ha adquirit, a través d'una formació addicional, la base de coneixements experts, així com habilitats per a la presa de decisions complexes i competències clíniques per a una pràctica ampliada de la infermeria, les característiques de la qual es modelen segons el context en el qual estan acreditades per exercir". A més de "serveis i intervencions de salut potenciats i ampliats que dispensen infermeres que, amb capacitat avançada, influeixen en els resultats clínics de salut i presten serveis sanitaris directes a persones, famílies i comunitats (CNA, 2019; Hamric i Tracy, 2019).

Concretament, en l' àmbit de la pràctica, la IPA exerceix un elevat grau d'autonomia professional i una pràctica clínica independent en funció de la regulació de cada país. El desenvolupament d'aquest grau d'autonomia,

responsabilitat, experiència en la pràctica clínica, habilitat i coneixement ampliat requereixen d'una major formació i d'un títol de màster o superior (ICN, 2008a). Forma part de la competència clínica de la IPA la valoració, el judici clínic i la presa de decisions a nivell avançat, la gestió de casos, la prestació de consultoria a altres professionals sanitaris i la col·laboració professional, així com la derivació de pacients a altres professionals o serveis. També la planificació, implementació i avaluació de serveis sanitaris específics. Així mateix, les IPA són el primer punt de contacte dels pacients i tenen autoritat, en funció de la regulació del país o de les jurisdiccions específiques, per realitzar diagnòstics i receptar tractaments mèdics i no mèdics (EONS, 2018; ICN, 2020).

A nivell internacional, els rols de pràctica avançada desenvolupats més comuns són el de la infermera clínica especialista *(Clinical Nurse Specialist)* i la infermera practicant o d'atenció directa *(Nurse Practitioner).* Mentre que la infermera clínica especialista és una infermera que presta atenció amb un coneixement i experiència, avançat i especialitzat tenint cura de pacients o poblacions complexes o vulnerables d'una especialitat clínica (cures intensives, oncologia, cures pal·liatives, cura de ferides, atenció neonatal, gerontologia), tant en un entorn hospitalari com ambulatori, serveis d'urgències, atenció domiciliària, comunitària i perllongada. Treballen en col·laboració en equips de salut combinant una atenció clínica directa i indirecta amb un enfoc sistèmic i coordinant processos assistencials. (APRN i NCSBN, 2008; Barton i Allan, 2015; Bryant-Lukosius i Wong, 2019 ;CNA 2019; Kilpatrick et al., 2013; Maier et al., 2017; Tracy i O'Grady, 2019).

La infermera d'atenció directa és una infermera generalista que proporciona atenció clínica directa a diferents poblacions de pacients (salut familiar, pediàtrica, adulta-gerontològica o de la dona) i majoritàriament en entorns d'atenció primària, però també en cures d'aguts. Amb una formació avançada essent un professional clínic autònom, combinant coneixement i experiència a nivell clínic, format per diagnosticar, prescriure, tractar i gestionar. (AANP 2018 ; APRN 2008; Barton & Allan 2015; CNA 2018 ; Maier et al. 2017; NMBI 2017; RCN 2020; Scottish Government 2008; Scottish Government, 2021; Tracy i O'Grady 2019).

En la definició del concepte i naturalesa de la pràctica avançada infermera i de les competències que desenvolupen, s'han trobat diferents enfocs. Des d'una perspectiva teòrica amb el desenvolupament de diferents models conceptuals, la definició de competències específiques en base a la pràctica infermera en un context determinat per part de les diferents societats científiques, també estudis específics de competències en diferents àmbits o també l'avaluació del desenvolupament de la pràctica avançada mitjançant diferents eines.

Existeixen referents teòrics que han estudiat i definit el concepte de la infermera de pràctica avançada, desenvolupant diferents models i marcs competencials, com el *Hamric's Integrative Model of Advanced Practice Nursing* (Hamric i Tracy, 2019), el Fenton's and Brykczynski's *Expert Practice Domains of the Clinical Nurse Specialist and Nurse Practitioner, el de Calkin's Model of Advanced Nursing Practice, el d' Oberle and Allen: The Nature of Advanced Practice Nursing, el de Brown's Framework for Advanced Practice Nursing* o l'*Strong Memorial Strong Memorial Hospital's Model of Advanced Practice Nursing,* entre altres (Arsalanian-Engoren, 2019).

Des de diferents associacions o societats científiques infermeres, departaments governamentals, s'han definit marcs competencials, estàndards de la pràctica, els diferents rols professionals, carteres de serveis, la formació i certificació de les IPA. Associacions com el ICN, l'*American Nurses Association (ANA, 2008)*, la *Canadian Nurses Association (CNA, 2019)*, Royal College of Nursing (2018), el *Australian College Nursing (2015), l'Scottish Goverment (2021)* o el *Office of the Nursing and Midwifery Services Director (ONMSD) i* en el *Health Service Executive (HSE)* a Irlanda.

També s'han elaborat instruments o eines que permeten avaluar el desenvolupament de la pràctica avançada, eines que intenten definir i avaluar les funcions dels rols i s'han realitzat estudis per validar-los basats en *l'Strong Model of Advanced Practice Role Delineation tool* (Mick i Ackerman 2000; Chang et al., 2010; Chang et al., 2012; Jokiniemi et al., 2018; Jokiniemi et al., 2021a; Sevilla Guerra, 2018a; Sevilla Guerra, 2019) també de manera més específica, s'han creat instruments per avaluar el nivell de competència de les infermeres de pràctica avançada (Sastre-Fullana, 2016; Sastre-Fullana, et al., 2017) independentment del context legislatiu, normatiu i professional de cada país.

1.3.2. Competències de les Infermeres de Pràctica Avançada

A nivell competencial, s'han realitzat estudis de revisió i definició dels marcs de competències de les IPA en diferents àmbits i per identificar el desenvolupament per part de les IPA. Pel que s'ha fet necessari estudiar els aspectes de la IPA que són específics en el desenvolupament de les competències (vinculats a coneixements, habilitats i atributs) i que defineixen la pràctica avançada (Egerod et al., 2021; Gutiérrez- Rodríguez et al., 2022; Heinen et al., 2019; Lamb et al., 2018).

Molts d'aquests estudis han partit de revisions dels models d'Infermeria de Pràctica Avançada, d'eines d'avaluació de competències, de mapes de competències i d'estàndards de pràctica (Sastre Fullana et al., 2014; Schneider et al., 2022; Sevilla-Guerra & Zabalegui, 2019).

Alguns estudis com el de Sastre Fullana et al. (2014) han permès identificar a partir d'una revisió de models d'Infermeria de Pràctica avançada i de les eines d'avaluació de competències, amb un enfoc als mapes de competències i els estàndards de la pràctica, els dominis competencials que poden atribuir-se a rols d' IPA (Defensa del pacient, Autonomia professional, Gestió de cures, Agent de canvi, Col·laboració, Comunicació, Consultoria, Pràctica basada en l'evidència, Educació, Pràctica ètica i legal, Judici clínic expert, Lideratge clínic i professional, Mentoria i *Coaching*, Recerca i Docència). També s'han identificat competències comunes pels diferents dominis. Malgrat la varietat de patrons en el desenvolupament de la infermeria de pràctica avançada internacional, es poden trobar dominis de competències essencials en la majoria dels marcs nacionals. Els resultats obtinguts podrien servir de referència en el procés d' implantació de nous rols, avaluar-los i comparar el nivell d' acompliment de les competències en funció dels estàndards de les IPA en entorns no regulats.

En la mateixa línia de consens de competències, un altre estudi (Schneider et al., 2022) va perfilar i validar les competències bàsiques de les IPA en oncologia. La definició de competències permetria el desenvolupament de nous models formatius així com harmonitzar la formació existent.

En relació al desenvolupament competencial per part de les IPA, l'estudi de Jokiniemi et al. (2021b) va descriure i comparar el desenvolupament de les

competències bàsiques de les infermeres clíniques especialistes amb l'objectiu de clarificar i d'estandarditzar el rol i poder integrar i avaluar els rols de les infermeres clíniques especialistes. Similarment, l'estudi de van Hecke et al. (2019) va explorar el perfil de la pràctica, les activitats i les competències de les IPA, i els factors associats a la no execució d'activitats.

Altres tipus d'estudis, com el de Kishnasamy et al. (2021) en el que ha identificat característiques (coneixement, lideratge, adaptabilitat, comunicació, motivació, organització i cultura i atenció centrada en el pacient) que defineixen l'expertesa de les infermeres amb un rol clínic en l'àmbit oncològic.

A nivell competencial s'ha constat diversitat en la identificació de les competències d'aquests rols així com el nivell d' implantació. Els estudis realitzats per determinar i analitzar les competències desenvolupades per les IPA en diferents entorns (Heinen et al., 2019; Ryder et al.,2019; Jokiniemi et al., 2021b) han obtingut resultats que mostren més similituds que diferències en els rols desenvolupats (Hutchinson et al., 2014; Jokiniemi et al., 2021b; Jean et al., 2019), també s'ha observat la necessitat de desenvolupar instruments i consensuar la definició de les competències per poder avaluar-les i comparar-les entre diferents entorns (Hutchinson et al., 2014; Sastre-Fullana et al., 2014; Jokiniemi et al., 2021b).

Es fonamental disposar d'un marc de competències per a les IPA ja que permet determinar la planificació operativa, la capacitació i el desenvolupament professional d'acord amb les necessitats del sistema sanitari i dels pacients (Dowling et al., 2013; Jokiniemi et al., 2020; Gardner et al., 2013) que són elements clau per assegurar una implementació de rols de PA en tot el seu potencial (Gardner et al., 2016; Jokieniemi et al., 2018).

Altrament l'estudi i avaluació de competències en la implementació de rols de pràctica avançada pot ajudar a millorar la comprensió del rol, definir els rols d'una manera més clara, millorar els resultats clínics, contribuir a promoure la pràctica infermera i la qualitat de l'atenció (Jokiniemi et al., 2021b; Sastre-Fullana et al., 2017). Aquest aspecte és rellevant a l'hora d'establir un marc per a la descripció de llocs de treball, l'avaluació de l'acompliment professional, el reconeixement clínic i dissenyar programes d'avaluació de competències i de formació (Sastre-Fullana et al., 2015; Schneider et al., 2022)

Identificar la pràctica avançada i analitzar rols de pràctica avançada permet gestionar la selecció i formació de les IPA, així com implementar polítiques de salut incloent rols d'IPA (Gardner et al., 2016; Sevilla Guerra et al., 2021) on aquests rols d'IPA siguin un actiu, així com la definició de polítiques per definir la trajectòria de l'IPA i l'optimització optima dels recursos infermers (Sevilla Guerra et al., 2021; Jokiniemi et al., 2020).

1.3.3. Desenvolupament de la pràctica avançada

En un anàlisis del concepte d'infermera de pràctica avançada publicat en el 2013 (Dowling et al., 2013) s'objectiva una confusió en relació a la seva definició, pel fet de que tant els requisits educatius com els de la pràctica divergeixen en diferents països i contextos, així com els rols desenvolupats, la nomenclatura i les dificultats per identificar la contribució dels les IPA en l'atenció sanitària, el que dificulta el seu desenvolupament. En un estudi posterior, Araújo et al. 2018, identifica les característiques essencials de la IPA clarificant el seu significat i contribuint a una millor comprensió dels aspectes que identifiquen aquest rol, les condicions per la seva aparició, els resultats i implementació. En un anàlisi del concepte més recent i en relació al valor afegit de les *nurse practitioners* (Savard et al., 2023), es destaca els atributs d'aquest concepte relacionat amb les habilitats i competències, les activitats realitzades, els resultats positius i percepcions positives del rol. Determinant que el valor afegit depèn del context i s'entén comparant-lo amb contextos anteriors a la implantació o altres rols professionals.

En la revisió sistemàtica de Jokiniemi et al. (2012) en la que es van analitzar rols infermers avançats, va suggerir que aquests eren similars i la variació d'aquest semblava resultar de decisions a nivell organitzatiu o individual, no del país en qüestió. Mentre que en l'estudi de East et al. (2015) va identificar una variació en els títols, la formació i les activitats de les IPA malgrat que els rols eren similars.

A partir de l'anàlisi de les activitats de la pràctica avançada , la revisió sistemàtica de Hutchinson et al.(2014) va capturar els constructes per descriure la pràctica avançada i sintetitzar un marc descriptiu per tal de clarificar la naturalesa de la pràctica avançada i diferenciar també la naturalesa única dels diferents rols d'infermera de pràctica avançada (Specialist, Practitioner, Consultant, altres),

concloent que hi podia haver més similituds que diferències en la descripció dels rols.

L'estudi de Hill (2017), va concloure que la identitat de la infermeria ha evolucionat al llarg dels anys fins a ser professionals clínics amb formació universitària, autònoms i basats en l'evidència. També que existeix molta literatura sobre les funcions de les IPA, la seva identitat professional i la seva contribució a la prestació d'assistència sanitària. Tanmateix, hi continua havent una manca de coherència en els títols, les definicions de les funcions i l' àmbit de la pràctica particularment a Anglaterra (Hill, 2017).

Per tant, es fa necessari un consens global sobre la definició de la infermeria de pràctica avançada, els seus rols, les funcions i la nomenclatura (Hutchinson et al., 2014; Jokiniemi et al., 2021b).

Per una altra banda, s'ha evidenciat que el rol de l'IPA i l'abast de la pràctica estan determinats per l'entorn en el qual operen Jokiniemi et al., (2012), estudis com el de Lopatina et al. (2017) han mostrat que aquests rols s'han desenvolupat de manera específica en funció de les necessitats de les organitzacions, els entorns de la pràctica o els atributs individuals de les IPA.

És a dir, els entorns i contextos on s'implementen aquests rols, determinen el desenvolupament i l'abast de la pràctica (Jean et al., 2019; Schirle et al., 2020). En diferents estudis (Casey et al., 2019; Fealy et al., 2018; Van Hecke et al., 2019) s'han identificat factors facilitadors o bé al contrari, que poden dificultar la implementació de rols d'infermeria de pràctica avançada o el desenvolupament d'aquests rols.

Aspectes com una confusió en la definició de la pràctica avançada, la falta d'una definició clara del rol desenvolupat per les EPA o bé l'ambigüitat d'aquest (quan les funcions poden variar i no queda clar el seu abast) (Casey et al., 2019; Cook et al., 2021; Fealy et al., 2018), tot això suposa una dificultat en el desenvolupament del rol, fent-se palès que la descripció de les funcions i dels llocs de treball, així com dels requisits legals són fonamentals en el desenvolupament dels rols de pràctica avançada (Kobleder et al., 2017).

És conegut que la implementació i el desenvolupament dels rols de pràctica avançada dependrà d'aspectes relacionats amb el fet de disposar d'un sistema

de regulació i certificació de les IPA, una definició competencial i dels estàndards de la pràctica, disposar de programes formatius certificats així com una formació especialitzada. Però també dependrà de factors organitzacionals com el suport de les institucions, dels gestors i col·legues, d'un reconeixement econòmic, la maduresa dels equips o del context on desenvolupen el seu rol entre d'altres (Casey et al., 2019; Fealy et al., 2018; Jean et al., 2019; Schirle et al., 2020). Els estudis han determinat que la definició del rol, la terminologia, els requisits educatius i els enfocs normatius són fonamentals per la implementació del rol d'infermeria de pràctica avançada a nivell internacional.

A nivell internacional, la implementació dels rols de pràctica avançada és desigual, mentre que existeixen països com els EUA, Canadà, Regne Unit o Austràlia , en els quals aquests rols estan consolidats des de fa dècades entre d'altres, aquesta implementació encara no ha abastat el seu màxim desenvolupament (Carney, 2016; Westman et al., 2019) i aquestes figures encara estan emergint i expandint-se (Wheeler et al., 2022).

D'altra banda, pel que fa a la regulació d'aquests rols a nivell internacional també hi ha diferències, mentre que països com els EUA, Canadà o Regne Unit tenen una regulació i sistemes de certificació de les EPAs, en contraposició, hi ha països que han començat a implementar aquests rols sense tenir una regulació (Unsworth et al., 2022; Wheeler, 2022).

A nivell europeu, la implementació de l'EPA també és desigual i no tots els països disposen de sistemes de certificació i regulació (Carney, 2016; Wheeler et al., 2022), la regulació i la política venen més tard en el procés d'implementació (Unsworth et al., 2022) . No obstant, països com Suïssa, Finlàndia o Suècia, han implementat ja rols de pràctica avançada amb resultats positius (Gysin et al., 2019, Jokiniemi et al., 2021; Serena et al., 2018; Westman et al., 2019).

Per tant s'observa a nivell mundial una àmplia variació respecte els requeriments de formació, dels sistemes de regulació i de l'abast de la pràctica de les IPA. La manca d'una la legislació i certificació a nivell jurisdiccional o nacional és una barrera, ja que determina la capacitació de les IPA per exercir al màxim les seves competències o abast de la pràctica (Heale i Buckley, 2015).

En conseqüència es fa necessari una regulació de la pràctica avançada basada en estàndards educatius i una certificació per garantir un complet desenvolupament de la pràctica avançada, una atenció segura i uns resultats òptims de salut en els pacients (Carney,2016; Heale i Buckley, 2015).

1.3.4. La Infermera de Pràctica Avançada en Oncologia

Més específicament en el camp de l'oncologia, societats científiques d'infermeria oncològica com l'Oncology *Nurse Association (ONS, 2019), la Canadian Association of Nurse in Oncology* (CANO / ACIO, 2001) *o l'European Oncolgy Nursing Society* (EONS, 2018) han publicat el currículum de formació, estàndards de la pràctica i competències en funció dels diferents rols professionals d'IPA que tenen definits (*Nurse Practitioner, Clinical Nurse Specialist, Advanced Oncology Nurse*). Han definit els estàndards de la pràctica infermera avançada i els dominis competencials, així com les competències associades a aquests dominis. Els dominis competencials que comprendrien la pràctica clínica directa, la recerca, la pràctica basada en l'evidència, coneixement expert, coordinació, col·laboració, consultoria, treball en equip, comunicació, avaluació de resultats, *coaching*, *mentoring*, lideratge, presa ètica de decisions o defensa del pacient.

Més concretament, el rol de pràctica avançada infermera en l'atenció amb persones afectades de càncer està reconegut en la literatura en la que es descriuen competències en la pràctica assistencial avançada amb un alt grau de coneixement, expertesa i autonomia en les cures infermeres.

La figura de la infermera de pràctica avançada, és imprescindible per poder donar una atenció òptima als pacients i les seves famílies al llarg de tot el procés de la malaltia, des de la prevenció i detecció precoç amb rols específics com el consell genètic o programes de detecció precoç (Black, 2018; Kerber i Ledbetter, 2017; Mahon, 2015), en el diagnòstic (Cantril et al.,2019), durant el procés de tractament, atenció a la supervivència (Elizondo Rodríguez et al., 2021; Spears et al., 2017) i al final de la vida (Ferrell et al., 2020; van Dusseldorp et al., 2019). La necessitat d'una una atenció més específica en diferents parts del procés assistencial oncològic, requereix de nous models d'atenció eficients per assegurar uns resultats òptims.

Per una altra banda, la innovació amb l'objectiu de millorar l'assistència de la població, requereix també una nova visió de les cures infermeres que es tradueix en nous models d'atenció infermera. Hi ha estudis que destaquen l'abast de la pràctica infermera referent en pacients afectats per càncer de mama, pulmó, cap i coll o ginecològic (Buckley et al., 2018; Cook et al., 2014; Dempsey et al., 2016; Greedy, 2022; Serena et al., 2015; Vila et al., 2017) o la necessitat de prestar assistència de manera especialitza en diferents etapes de la vida tenint en compte els requeriments i necessitats assistencials dels pacients desenvolupant rols específics en pediatria o geriatria (Martins et al., 2016; Morgan i Tarbi, 2016)

Les IPA tenen les competències per proporcionar cures específiques i complexes, centrades en el pacient i al llarg del procés d' assistencial. En aquest sentit, les IPA s'encarreguen de la coordinació de l'atenció dels pacients, de la sol·licitud de proves, de la interpretació de resultats, de l'educació al pacient en relació amb les proves, del seguiment del tractament, del maneig dels efectes adversos, de la valoració clínica, del control de símptomes relacionats amb la malaltia, sense oblidar, el suport emocional o el suport en la presa de decisions (Davies et al., 2022; Schneider et al., 2022). Per tant, les IPA presten una atenció holística i especialitzada, donant resposta a les necessitats dels pacients oncològics aportant millores en aspectes com la informació, l'accessibilitat, i la implicació del pacient en l'autocura (Kerr et al., 2021; Schneider et al., 2022; Westman et al., 2019).

Estudis previs han constatat que la implementació de rols IPA suposa una millora en l'atenció dels pacients oncològics, especialment en relació als següents aspectes: la millora en la informació, la coordinació de les cures, l'accessibilitat als serveis i la participació activa dels pacients en la presa de decisions, la qual cosa es tradueix en una disminució de l'ansietat en els pacients i famílies, la disminució de la mortalitat, dels ingressos no programats i una reducció de visites en hospitals amb un impacte en resultats salut (Alessy et al., 2021; Alotaibi i Al Anizi, 2020; Kerr et al., 2021; Stewart et al., 2021). A més, tot això influeix positivament en l'augment de la qualitat de vida dels pacients i en la satisfacció percebuda; però també permet constatar que les IPA transformen positivament l'experiència del pacient (Kerr, 2021; Stahlke et al., 2017; Westman et al., 2019).

En la revisió de Kerr et al. (2021), les troballes van mostrar que l'IPA té un rol versàtil per donar resposta a les variacions del context clínic, a més de ser un membre essencial i valuós de l'equip multidisciplinari. Al seu torn, amb relació a l'experiència i percepció per part dels membres d'equips multidisciplinaris del rol de l'IPA, en l'estudi de Cook et al. (2019) en pacients ginecològiques, els especialistes van identificar els atributs i l'àmbit de competència de l'EPA com a referent, proveïdora de suport als pacients, dispensadora d'informació i educació sanitària, facilitadora de la comunicació, i de l'accessibilitat dels pacients al sistema, entre d'altres (Cook et al., 2019).

Tenint en compte la perspectiva dels agents implicats en la relació assistencial, en l'estudi de Kilpatrick et al. (2016) es va evidenciar que la percepció dels pacients i famílies sobre els equips que les atenien eren més efectius després de la implementació de la figura d'IPA. Concretament, millorava la comunicació, la presa de decisions, la cohesió, la coordinació de l' atenció, la resolució de problemes i l' enfocament de les necessitats dels pacients i famílies.

1.4. La Infermera de Pràctica Avançada a Espanya i Catalunya

1.4.1. Implementació de la Pràctica Avançada en el context català i espanyol

A l'estat espanyol, l'augment de malalties cròniques i l'envelliment progressiu de la població tenen una repercussió en un augment de la demanda sanitària i dels costos, el que ha dut a crear estratègies en l'atenció sanitària (Gómez-Picard & Fuster-Culebras,2014). Aquestes estratègies contemplen la definició de nous rols infermers: gestores de cas (Morales-Asencio, 2014; Miguélez-Chamorro et al., 2019), infermeres d'enllaç, infermeres gestores de continuïtat, infermeres gestores de competències avançades, infermeres de pràctica avançada, infermeres clíniques etc. (Appleby i Camacho-Bejarano, 2014;Fabrellas et al., 2011; Sánchez-Martín, 2014).

La implementació d'aquests rols infermers amb competències ampliades són estratègics i tenen com objectiu garantir la continuïtat assistencial i la coordinació, donant resposta a les necessitats de la població i fomentant un sistema sanitari més sostenible (Appleby & Camacho-Bejarano, 2014; Galiana-Camacho, 2018; Sánchez-Gómez et al., 2019).

En la definició de competències en el context espanyol, l'estudi de Fullana et al. (2015) va permetre delinear mitjançant el consens d'experts, el marc competencial de les IPA emfatitzant que el fet de disposar d'un marc de competències definit, podria ser un punt de partida pel desenvolupament normatiu, la revisió de rols o pel plantejament dels perfils formatius de les IPA. En aquest estudi es van definir i descriure els dominis competencials: Investigació i pràctica basada en l'evidència, Lideratge clínic i consultoria, Mentoria, Col·laboració i relació interprofessional, Judici clínic expert, Lideratge educatiu, Gestió de la qualitat i seguretat clíniques, Gestió de les cures, Autonomia per la pràctica professional, Promoció de la salut, Competència cultural, Protecció i defensa dels drets dels pacients.

Per una altra banda, el Servei Andalús de Salut (SAS) ha definit i descrit els rols infermers que desenvolupen competències avançades per donar resposta a les necessitats de la població, concretament en gestió de casos, ferides cròniques complexes, processos oncològics complexes, cures pal·liatives entre altres (Lafuente-Robles et al., 2019). Pel que fa a la descripció del rol de la gestora de casos trobem treballs com els de Morales-Asencio (2014) y Miguélez-Chamorro et al.(2019) en els que es contextualitza, justifica i defineix les àrees competencials i les competències a desenvolupar, els models que s'han desenvolupat o l'efectivitat d'aquests.

A Catalunya, la Càtedra de Gestió, Direcció i Administració Sanitàries de la Universitat Autònoma de Barcelona dins el projecte IPACAT ha publicat una proposta de Model de la Infermera de Pràctica Avançada a Catalunya (MIPACAT)(Ferrús Estopà et al., 2022).

Diferents comunitats autònomes com el País Basc, Canàries, Catalunya, Andalusia, Madrid o l'Aragó, han implantat rols de pràctica avançada amb programes específics per cada comunitat i amb variabilitat en els rols tant en la definició com en les funcions. Desplegant-se rols identificats de pràctica avançada sota noms diversos com gestores de casos, gestores de fragilitat, infermeres clíniques, infermeres referents o infermeres de pràctica avançada (Gutiérrez Martí et al., 2018), desenvolupant els rols en funció de les necessitats del sistema sanitari i dels pacients (Lafuente-Robles et al., 2019; Sánchez-Martín, 2014; Institut Català de la Salut, 2010; Departament de Salut, 2012).

En el cas particular d'Espanya, els estudis mostren una implementació de rols d'IPA en diferents entorns des d'atenció en atenció primària, serveis d'urgències, hospitals d'aguts o per especialitats mèdiques com salut mental o oncologia o bé patologies o problemàtiques concretes com la diabetis, l'epilèpsia o les ferides cròniques complexes (Gutiérrez-Rodríguez et al., 2022; Manzanares et al., 2021; Pol-Castañeda et al., 2020; Sevilla-Guerra, 2018b; Sevilla Guerra et al., 2021).

Malgrat la implementació de rols de pràctica avançada, a España, la infermeria de practica avançada no està regulada a nivell legal, de formació ni professional (Comellas, 2016; Satre-Fullana et al., 2015;Sevilla Guerra et al., 2018b; Sevilla Guerra et al., 2021), la regulació només contempla dues categories professionals les infermeres generalistes i les infermeres especialistes (Salut Mental, Pediatria, Geriatria, Obstetrícia i Ginecologia, Familiar i Comunitària, Salut Laboral i Medico-Quirúrgica).

Actualment, la regulació de la professió infermera s'emmarca en la *Ley 44/2003 de ordenación de las profesiones sanitarias* (BOE, 2003) i en relació a les especialitats, en el *Real Decreto 450/2005* (BOE, 2005).

En el 2009 es legisla a Espanya (BOE, 2009) la capacitat de prescripció per part de les infermeres. A Catalunya, amb l'aprovació del Decret 180/2019, es regula el procediment d'acreditació de les infermeres i infermers per a l'exercici de la indicació, ús i autorització de la dispensació de medicaments i productes sanitaris d'ús humà. Amb l'acreditació les infermeres poden prescriure medicaments i productes que no estan subjectes a la prescripció mèdica. Els medicaments subjectes a la prescripció mèdica els podran indicar i usar d'acord als protocols o guies de pràctica clínica que s'elaboraran des de la Comissió Permanent de Farmàcia del Consell Interterritorial del Sistema Nacional de Salud (Ministerio de Sanidad, 2023).

A nivell formatiu, en els rols de pràctica avançada, la recomanació a nivell internacional és una formació més enllà de la bàsica de Grau, es recomana un nivell de màster o doctorat. A l'estat espanyol i Catalunya diferents universitats (Universitat de Barcelona; Universidad de Navarra; Universidad de Huelva; o la Universidad Internacional de Andalucía, entre altres) han desenvolupat programes de màsters universitaris propis o bé oficials que contemplen diferents

especialitats o àmbits en concret: urgències, cronicitat i dependència, oncologia, cardiologia, cronicitat, dolor, ferides cròniques i complexes o neurologia.

1.4.2. Desenvolupament de pràctica avançada a Espanya i Catalunya

A dia d'avui encara disposem de poc coneixement en relació a com es desenvolupa la pràctica avançada infermera i dels resultats en els pacients, tant a l'estat espanyol com a Catalunya, tot i que en els últims anys s'han publicat diferents estudis.

Pel que fa al desenvolupament del rols de pràctica avançada, en l'entorn espanyol, Sevilla Guerra et al. (2018b) va descriure el perfil de la infermeria de practica avançada, aportant dades sobre l'abast i patrons de la pràctica, les activitats i dominis de pràctica avançada.

Manzanares et al. (2021) va comparar la pràctica avançada de les infermeres d'epilèpsia a Espanya i a el Regne Unit, pel que fa als dominis i estàndards de la pràctica. Els resultats van mostrar diferències entre ambdós països i que el rol de pràctica avançada a Espanya estava poc desenvolupat respecte el Regne Unit, en dominis com el lideratge i la recerca, això estaria associat a les diferències en com està conformat aquest rol avançat i a les diferències en els sistemes organitzatius i de salut.

S'ha trobat diferències a nivell de competencial, segons els resultats de l'estudi de Gutiérrez-Rodríguez et al., (2022), en l'anàlisi de les competències avançades de les infermeres generalistes, infermeres especialistes i infermeres considerades de pràctica avançada. En aquest estudi també es va evidenciar que les IPA atenen els pacients més complexes, mentre que les infermeres especialistes no es dediquen necessàriament a atendre els casos més complexos. En un estudi previ de Gutiérrez-Rodríguez et al., (2019) ja s'havia identificat que les infermeres especialistes i les de practica avançada desenvolupaven competències diferents.

En relació a l'avaluació de resultats en la implementació del rol, en l'estudi de Pol-Castañeda et al., 2022, en la incorporació d'Infermeres d'Hospitalització de Pràctica Avançada a les unitats hospitalàries, es va evidenciar que milloraven significativament els indicadors clínics relacionats amb la prevenció i tractament

de les úlceres per pressió i la inserció i manteniment de catèters venosos perifèrics, millorant la seguretat en l'assistència i fomentant l'adhesió a les guies de pràctica clínica entre els membres de l'equip d'infermeria.

A Catalunya, la tesi doctoral de Comellas (2016) va concloure que el desenvolupament de competències pràctica avançada per part de les infermeres que s'havien identificat com IPA era incomplet i requeria avançar, igualment en aspectes formatius. També va identificar una manca de claredat i confusió del concepte de pràctica avançada, i aspectes relacionats amb la manca de regulació d'aquest rol (formació, reconeixement del rol, certificació, legislació).

Més recentment, la Càtedra de Gestió, Direcció i Administració Sanitàries de la Universitat Autònoma de Barcelona va posar en marxa el projecte IPACAT amb diferents estudis per explorar i identificar diferents aspectes relacionats amb el desenvolupament de la pràctica avançada a Catalunya. Des de la nomenclatura i el rols desenvolupats, l'abast i extensió de la pràctica avançada, la visió de professionals sanitaris del rol de la IPA fins a la validació d'un model de pràctica avançada.

En el desenvolupament de la pràctica avançada a Catalunya, s'han evidenciat aspectes com seria la confusió entre les denominacions de les infermeres que es podrien considerar de pràctica avançada (Gutiérrez Martí et al., 2018).

En l'estudi de Gutiérrez Martí i Ferrús Estopà (2019) va identificar rols de pràctica avançada, evidenciant una gran variabilitat en el desenvolupament i que aquest que no abastava tota l'extensió de la pràctica.

Tanmateix a Catalunya, s'han identificat infermeres que exerceixen rols de pràctica avançada, d'acord a les dimensions de l'escala IDREPA (Sevilla-Guerra et al., 2018b), per donar resposta a les necessitats dels pacients, treballant principalment en grans serveis d'aguts. Cal considerar però, que sense regulació ni reconeixement formal, els quals serien necessaris per dur a terme totes les seves competències (Sevilla Guerra et al., 2021).

En relació a la visió del rol de la IPA per part de professionals que comparteixen objectius de salut amb IPAs, els enquestats van coincidir de manera àmplia en reconèixer atributs, característiques, funcions i aportacions propis d'un rol de pràctica avançada, ens aspectes com la necessitat d'estandarditzar la formació,

la manca de suport legal per desenvolupar el seu rol en tot el seu abast, la necessitat d'una acreditació per un organisme competent o la necessitat de crear llocs de treball de pràctica avançada específics (Gutiérrez Martí i Ferrús Estopà, 2021). En un estudi més recent de consens (Gutiérrez Martí i Ferrús Estopà, 2022) es va definir i validar els criteris i aspectes claus de les IPAS: la definició del rol, els estàndards de la pràctica, la formació i un sistema d'acreditació, aspecte que permetrien definir un model de IPA a Catalunya.

1.4.3. Desenvolupament de la Infermera de Pràctica Avançada en càncer a Espanya i Catalunya

En l'àmbit oncològic, la Comunitat d'Andalusia, el SAS, reconeix des del 2018 el paper de les infermeres de pràctica avançada en els processos oncològics complexos i ha definit aquests rols.

El rol de gestora de casos i atenció especialitzada està contemplat i reconegut en les línies estratègiques i objectius en el document del Pla contra el Càncer a Catalunya 2015-2020 del Pla Director d'Oncologia del Departament de Salut de Catalunya, amb un paper de coordinació de l'atenció durant el diagnòstic i les fases de tractament actiu, sent una referència per als pacients i els professionals.

En els últims anys en l'àmbit oncològic de Catalunya, s'ha observat el desenvolupament de rols de pràctica avançada en les diferents etapes del procés oncològic: des de la prevenció amb rols infermers avançats en Consell Genètic, en processos diagnòstics, en el tractament tant sigui quirúrgic, sistèmic o radioteràpic, en l'atenció a la Supervivència, o les Cures Pal·liatives, infermeres que realitzen la coordinació del procés assistencial del pacient des del diagnòstic fins la finalització del tractament.

Les infermeres considerades de pràctica avançada formen part dels equips multidisciplinaris, participen de circuits de diagnòstic ràpid i desenvolupen un rol de gestores de casos, coordinant el procés diagnòstic del pacient. Són referents clíniques tant per als pacients com altres professionals, participen en els comitès de tumors, proporcionant una atenció integral i especialitzada.

Pel que fa a l'estat actual del tema d'estudi en oncologia tant a Espanya com Catalunya, la literatura és escassa, Vila et al. (2017) va realitzar una revisió i establir recomanacions en la definició d'un rol d'infermera especialitzada en càncer de mama avançat, aquest perfil professional tenia un rol clínic, d'educació al pacient, de recerca i de gestió de casos, realitzant a activitats de valoració individualitzada de les necessitats del pacient, educació, coordinació, comunicació i suport, implementació de les transicions dels pacient, maneig de símptomes, dolor y ansietat. També es van definir les habilitats a desenvolupar, la formació i la implementació del rol dins els equips multidisciplinaris.

Recentment s'ha publicat un estudi (Rivera et al., 2023) en el que es descriu com els factors contextuals al voltant de la pràctica clínica, les estructures institucionals i les xarxes professionals són determinants i crucials per integrar adequadament les IPA a nivell del sistema sanitari.

1.5. Justificació

Les infermeres de pràctica avançada tenen un paper fonamental en la cura del pacient oncològic. Són infermeries amb un coneixement clínic avançat i expert, a més d'una pràctica autònoma i desenvolupen unes característiques i unes habilitats en la seva pràctica assistencial, que fan que adquireixin un nivell de competència ampliat. Això els permet dispensar una atenció especialitzada, eficient i segura per donar resposta a la complexitat i les necessitats dels pacients amb càncer al llarg de tot el procés de malaltia, amb un impacte positiu tant en els pacients i famílies, com en els processos i en els equips assistencials.

Per una altra banda les estimacions d'un augment de la incidència i prevalença de les persones afectades de càncer, les necessitats d'atenció en relació a la salut, tenint en compte el context social, econòmic i cultural, requereixen de noves estratègies en polítiques de salut. A més, cal afegir en aquest context, un augment en la complexitat en l'abordatge en el diagnòstic i tractament oncològic que fa necessari d'una planificació i organització diferent entorn el pacient, així com, l'aparició de nous rols assistencials.

A Catalunya, tot i el reconeixement de rols de pràctica avançada com seria la infermera gestora de casos en la coordinació de la gestió de l'atenció del pacient durant el diagnòstic i el tractament actiu, i amb un paper de referent per als

pacients i professionals dels equips multidisciplinaris, la pràctica avançada no està regulada a nivell legal ni professional. Pel que la implantació i desenvolupament d'aquests rols, les funcions i responsabilitats vindrien determinades pel context i entorns on les IPA desenvolupen la seva activitat, o per la pròpia IPA a nivell individual.

La idea de realitzar aquest estudi sorgeix de la necessitat d'identificar les competències que desenvolupen les infermeres de pràctica avançada en el context oncològic català. És important entendre quina és l'experiència de les infermeres oncològiques en relació al desenvolupament del rol i de les cures prestades com infermeres de pràctica avançada, identificant les diferents funcions dins els entorns on presten les seves cures.

També és necessari comprendre quina és l'aportació diferencial de les cures proporcionades per les IPA en els pacients oncològics i la seva funció essencial dins dels equips multidisciplinaris, per tant, entendre quina és l'experiència dels pacients i professionals de les cures proporcionades per les IPA.

Atès, que en l' àmbit específic de l' atenció oncològica a Catalunya, hi ha escassa evidència sobre el desenvolupament del rol i competències de les Infermeres considerades de pràctica avançada es necessari realitzar aquest estudi.

2. OBJETIUS

Objectiu General:

Identificar el nivell de desenvolupament de la pràctica avançada infermera en la cura del pacient oncològic.

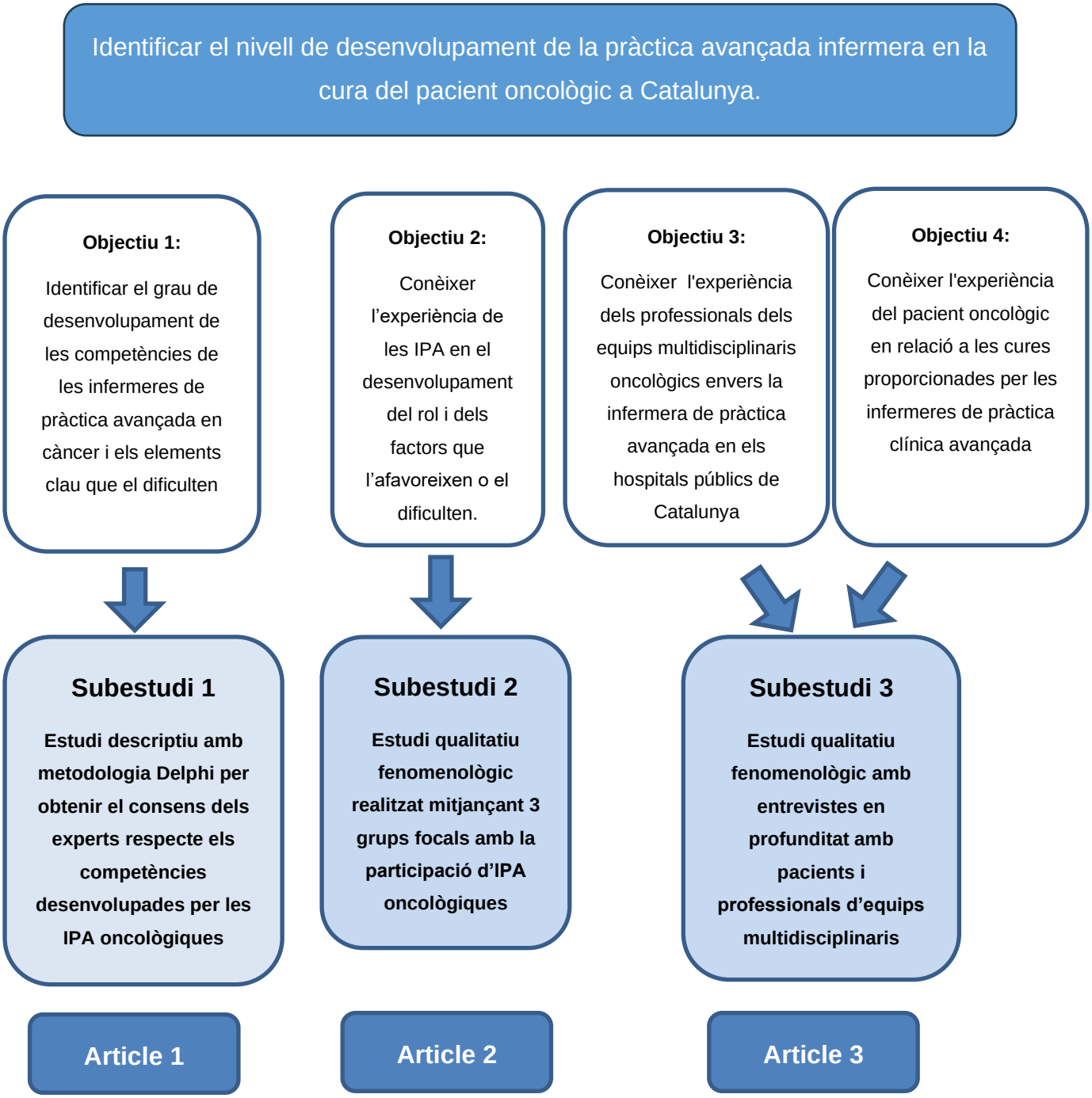
Objectius específics:

1. Identificar el grau de desenvolupament de les competències professionals de les infermeres de pràctica avançada en càncer i els elements clau que el dificulten.
2. Conèixer l'experiència de les IPA en el desenvolupament del rol i dels factors que l'afavoreixen o el dificulten.
3. Conèixer l'experiència dels professionals dels equips multidisciplinaris oncològics envers la infermera de pràctica avançada en els hospitals públics de Catalunya.
4. Conèixer l'experiència del pacient oncològic en relació a les cures proporcionades per les infermeres de pràctica clínica avançada.

3. METODOLOGIA

A continuació, en la següent figura (2) s'observa l'organització dels objectius, els subestudis i els articles presentats en aquesta tesi:

Figura 2: Organització dels objectius i estudis de la Tesis



Segons la figura anterior, l'estudi va constar de 3 subestudis. El primer objectiu va ser identificar el grau de desenvolupament de les competències de les infermeres de pràctica avançada en càncer i els elements clau que dificultaven, de manera concreta, el seu desenvolupament. Per aconseguir aquest objectiu es va realitzar el **Subestudi 1** amb el títol "*Delphi survey on the application of Advanced practice nursing competencies: Strong points and unfinished business in in cancer care".* Els resultats d'aquest estudi es mostren en l'**Article 1.**

El següent objectiu, va ser conèixer l'experiència de les IPA en el desenvolupament del rol i dels factors que afavoreixen o dificulten o dificulten aquest desenvolupament. Per assolir aquest objectiu es va realitzar el **Subestudi 2** amb el títol *"The role experience of advanced practice nurses in oncology: An interpretative phenomenological study"* i el resultat va ser el manuscrit corresponent a l'**Article 2.**

El tercer i quart objectius, que s'engloben en comprendre l'experiència viscuda pels pacients oncològics i pels professionals dels equips multidisciplinaris en relació a les cures proporcionades per les IPA. Es van resoldre amb l'**Subestudi 3** amb el títol "*Patients' and professionals' experiences with advanced practice nursing in cancer care: A qualitative study"*, com a resultat es va obtenir l'**Article 3**.

4. ARTICLES DERIVATS DE LA TESIS

4.1. Artícle1

ARTICLE ORIGINAL 1

Títol	*Delphi survey on the application of Advanced practice nursing competencies: Strong points and unfinished business in in cancer care*
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Factor d'impacte*	5.5
Categoria 1	Nursing (SCIE)
Quartil en la categoria1	Q1
Posició en la categoria1	3/125
Categoria 2	Management(SSCI)
Quartil de la categoria 2	Q2
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ORIGINAL ARTICLE

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Delphi survey on the application of advanced practice nursing competencies: Strong points and unfinished business in cancer care

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Abstract

Aim: This study assessed the application of advanced practice nursing competencies in cancer care to identify obstacles to their full implementation.

Background: Internationally, the implementation of advanced practice nursing roles depends on the context and environment, which shape the definition, scope and competencies associated with these roles.

Methods: Nurses participated in two rounds of an online Delphi survey about the competencies of advanced practice oncology nurses. The threshold for expert consensus was set at 75%.

Results: Eleven competency domains were proposed; all yielded consensus of over 75%. However, for 57.8% of the specific competencies proposed in round 1 and for 62.2% in round 2, there was no consensus on which were applied in practice. There was more agreement on the competencies applied in the domains of direct clinical practice, consultation and collaboration and interprofessional relations than in dimensions such as health care promotion, quality improvement, evidence-based practice and research. Barriers related to unimplemented competencies were identified.

Conclusions: The competencies applied in advanced practice nursing reflect incomplete development of these roles. Domains related to direct clinical practice, consultation and collaboration and interprofessional relations are relatively well developed, whereas those related to leadership, research, evidence-based practice and quality improvement are not. The identified barriers hindering implementation of some competencies can inform strategies to develop this role in cancer care.

Implications for Nursing Management: Hospital administrators and nurse managers should reflect and be mindful of the development of advanced practice nurse (APN) competencies along with the challenges associated with implementing advanced practice roles.

KEYWORDS
advanced practice nursing, clinical competencies, Delphi technique, nurses role, oncology nursing

1 | BACKGROUND

The professional role of the advanced practice nurse (APN) has emerged as an innovative solution to health care needs, providing a high degree of knowledge, expertise and autonomy in patient care (Hutchinson et al., 2014; Krishnasamy et al., 2021; Sánchez-Gómez et al., 2019). At the international level, implementation and regulation are uneven: in some countries, these roles have been established for decades, while in others, implementation has not yet reached its optimal level (Carney, 2016; Schönenberger et al., 2020; Westman et al., 2019).

Nurses are well placed to contribute to reducing the burden of cancer across the entire care pathway (Yates et al., 2021). Oncology APNs have the skills to respond to patients' needs at different stages of the disease. Through their functional roles as expert clinicians and researchers, APNs support evidence-based best practice within multidisciplinary teams (Baileys et al., 2018; Coombs et al., 2020), contributing to improvements in patients' quality of life and satisfaction as well as in clinical outcomes sensitive to nursing practice (Alessy et al., 2021; Cook et al., 2017; Keer et al., 2021).

In defining the concept and nature of advanced practice nursing, different authors have developed numerous theoretical approaches and models, including Hamric's Integrative Model of Advanced Practice Nursing (Hamric, 2014), Fenton's and Brykczynski's Expert Practice Domains of the Clinical Nurse Specialist and Nurse Practitioner and the Strong Memorial Hospital's Model of Advanced Practice Nursing (Spross, 2014).

Likewise, different scientific societies, such as the International Council of Nurses (ICN, 2020), the American Nurses Association (ANA, 2008), the Canadian Nurses Association (2019), the Royal College of Nursing (2018) and the Australian College of Nursing (Australian Nursing and Midwifery Accreditation Council, 2015) have developed specific competency frameworks and standards for advanced practice nursing. However, there is no global consensus on the definition of roles and nomenclature around this field. Rather, the APN's scope of practice is largely determined and conditioned by the environment in which they practice (Casey et al., 2019; Dowling et al., 2013; Jokiniemi et al., 2012).

Despite longstanding and other more recent experiences, the competencies associated with these roles and their level of implementation are diverse. Studies analysing APN competencies in different environments have observed more similarities than differences (Heinen et al., 2019; Hutchinson et al., 2014; Jean et al., 2019; Jokiniemi et al., 2021; Ryder et al., 2019). In general, these authors signal the need to develop specific instruments to evaluate APN competencies, to identify their roles in practice and to agree on the definition of competencies in order to enable quality assessment and compare different settings (Hutchinson et al., 2014; Jokiniemi et al., 2021; Sastre-Fullana et al., 2014).

Establishing a competency framework for APNs is crucial for ensuring that operational planning, education and professional development are optimal and in alignment with health system and patient needs (Dowling et al., 2013; Gardner et al., 2013; Jokiniemi et al., 2020). Studying the implementation of competencies in advanced practice roles and contexts can deepen our understanding of the role, define it more clearly, improve clinical outcomes and contribute to promoting nursing practice and the quality of nursing care (Jean et al., 2019; Jokiniemi et al., 2021; Sastre-Fullana et al., 2015). This aspect is relevant when crafting job descriptions, professional performance evaluations, clinical certification, and competency and education evaluation programmes (Burke et al., 2017; Sastre-Fullana et al., 2017).

Identifying advanced practice nursing and analysing its functions can inform an array of complementary processes, including APN recruitment and education (Gardner et al., 2016; Sevilla Guerra et al., 2021). The insight gained can also lay the foundation for developing health policies that integrate advanced practice nursing as a core asset to the health system, designing policies that set out the career paths available to these professionals and optimizing nursing resources (Jokiniemi et al., 2020; Sevilla Guerra et al., 2021).

On the other hand, Heale and Rieck Buckley (2015) emphasize the need to regulate advanced practice according to educational standards and certification, guaranteeing the full development of advanced practice and in turn ensuring good patient outcomes. In the field of oncology, the Oncology Nurse Society (Oncology Nursing Society (ONS), 2019), the Canadian Association of Nurses in Oncology (Canadian Association of Nurses in Oncology (CANO/ACIO), 2001) and the European Oncology Nursing Society (European Oncology Nursing Society (EONS), 2018) have published educational curricula, practice standards and nursing competencies according to the different professional roles performed. Oncology APNs are nested within multidisciplinary teams, and they specialize in cancer prevention and screening, genetic counselling, and case management. They also have a role in process coordination, teaching, guidance and surveillance, and they may also be the key nurse for symptoms management.

In Spain, advanced practice roles have been deployed under various names, such as case managers and clinical nurses in cancer or chronicity, and they adapt their practice to health system and patient needs (Lafuente-Robles et al., 2019; Sastre-Fullana et al., 2014). In Andalusia, the role of APNs in complex oncological processes has been recognized since 2018 (Junta de Andalucia, 2018), and in Catalonia, it is integrated into the most recent strategic lines and objectives of the Cancer Control Plan 2015–2020 (Pla Director d'Oncologia, 2015). Nevertheless, despite the implementation of advanced practice roles in Spain, the

functions performed by APNs are not regulated at a legal or professional level (Sevilla Guerra et al., 2018).

Studies in Spain have identified advanced practice roles and competencies, describing development that stops short of the full scope of practice (Gutiérrez Martí & Ferrús Estopà, 2019; Gutiérrez-Rodríguez et al., 2019; Sevilla Guerra et al., 2018). This situation increases the interest in exploring advanced practice from the perspective of the nurses who practice this role. Thus, the aim of this study was to elicit the perspective of oncology APNs on the level of implementation of the core competencies and the obstacles that hinder it, identifying areas of consensus through a Delphi survey.

2 | METHODS

2.1 | Study design

We applied the Delphi method to reach a consensus among experts through an iterative, two-round process with an expert panel (Keeney et al., 2011; McKenna & Keeney, 2008).

The process began with a proposed list of topics for discussion, obtained from a review to identify competencies of oncology APNs. The list of competencies was based on the competency models for advanced practice oncology nurses defined and published by the Oncology Nurse Society (ONS, 2019), the Canadian Association of Nurses in Oncology (CANO/ACIO, 2001) and the European Oncology Nursing Society (EONS, 2018). Hamric's Model of Advanced Nursing Practice was used as a theoretical framework (Hamric, 2014). A review of the domains and nursing competencies of advanced practice yielded an initial total of 90 competencies, organized under 11 competency domains: (1) direct clinical practice; (2) health promotion; (3) education; (4) consultation; (5) evidence-based practice; (6) clinical and professional leadership; (7) collaboration and interprofessional relations; (8) ethical decision-making; (9) quality improvement; (10) professional development; and (11) research.

2.2 | Panel of experts

Delphi participants comprise a panel of experts on the topic under study (Keeney et al., 2011; McKenna & Keeney, 2008). In our study, panel members were selected based on their expertise and/or experience in advanced practice nursing, ensuring that different perspectives were represented (Landeta, 2006). Both clinical and academic spheres were taken into consideration. The panel included (1) people with extensive knowledge of the application of advanced practice nursing due to their studies and research activity in the field; (2) directors and managers with experience developing APN profiles or managing these professionals in the field of oncology at their hospitals; and (3) nursing professionals with experience as recognized oncology APNs at their hospital.

Although the literature provides no clear guidelines with respect to the ideal number of Delphi panel members, some recommendations suggest a sample of 20 to 50 participants (Endacott et al., 1999; McKenna & Keeney, 2008). Given the content under study, the degree of uncertainty and dispute in the literature, and the available resources (Coleman et al., 2013; Keeney et al., 2011), we decided that our study needed an expert panel of at least 30 nurses.

2.3 | Consensus

The researchers established a pre-defined minimum level of consensus of 75%, in line with the study objectives, available resources and the anticipated responses (Keeney et al., 2011; Mcilfatrick & Keeney, 2003). In other words, 75% of the participants had to agree on the statements evaluated (Keeney et al., 2011; McKenna & Keeney, 2008). The competencies that obtained this level of consensus in round 1 were included, unchanged, in the round 2 questionnaire.

2.4 | Information collection

The study included professionals from hospitals in Catalonia (Spain) with oncology or haematological oncology services. The nursing directors were contacted by telephone or email to explain the project and inquire whether the hospital had implemented advanced practice oncology roles. Once this was confirmed, they provided the emails of APN managers and APNs who might be interested in taking part. The participants were contacted by email with a description of the study, a formal invitation to participate and an informed consent form with specific details. Selected participants who gave their consent were sent a link to the first questionnaire.

This Delphi study was restricted to two rounds, as the literature indicates that participants tire of the process after three rounds (Keeney et al., 2011; Walker & Selfe, 1996).

2.5 | Questionnaires

An online questionnaire was used to collect the study data, allowing investigators to easily monitor and analyse the data and participants to maintain their anonymity. The panel members did provide some personal details, including their age, sex, level of education, professional experience and field of work.

The first questionnaire, distributed from March to June 2020, identified the domains of advanced practice and the specific competencies. The items probed whether the different competency domains applied to the APN role, whether APNs used the specific competencies in practice, and if not, whether this would be appropriate. An open question asked panel members to identify the factors required to develop the competencies that participants had stated were not routinely applied. The questionnaire was piloted by eight professionals who were experts on the subject prior to the start of the first round and subsequently adapted based on the responses and feedback.

The second questionnaire was drafted based on the responses to the first, with the aim of establishing consensus in terms of which competencies were applied by APNs. It was circulated in September 2020 to the participants who had completed the first questionnaire.

2.6 | Data analysis

A descriptive analysis of the study variables was conducted. The questionnaires were analysed separately, and SPSS software (version 19.0) was used for the quantitative analyses. In the case of open questions, content analysis was carried out.

2.7 | Ethical considerations

The directors of participating hospitals and the Ethics Committee of the Hospital Universitari de Bellvitge approved the protocol (PR277/18). The study complied with the bioethical regulations (Declaration of Helsinki, 2013) and applicable legislation, including Organic Law 3/2018 on Personal Data Protection and Guaranteeing Digital Rights, and EU Regulation 2016/679 on General Data Protection.

3 | RESULTS

3.1 | Response rate

In the first round, 42 nursing professionals responded (70% of the 60 questionnaires sent out). In the second round, 33 of these panel members (78.6%) contributed; participant characteristics were similar in the two rounds, with no significant differences in demographic or professional characteristics.

Table 1 shows panel members' characteristics. Their mean age was 46.6 years in round 1; and 46.7 years in round 2; all the professionals in the sample were women. Over 90% worked in a hospital, while the rest worked in the academic field. The professional profile in round 1 was female nurses aged 35 to 49 years old (59.53%), with over 20 years' professional experience (59.5%) and a master's degree (61.9%). Most (83.3%) were oncology APNs, and 68.5% had more than 5 years' experience. Just over half (52.4%) worked in a specialist cancer hospital. The study covered the provinces of Barcelona, Girona

TABLE 1 Characteristics of Delphi panel members

Variables		Round 1 ($N = 42$) *n* (%)	Round 2 ($N = 33$) *n* (%)
Age	21–34 years	3 (7.1)	2 (6.1)
	35–49 years	25 (59.5)	21 (63.6)
	50–65 years	13 (31.0)	9 (27.3)
	>65 years	1 (2.4)	1 (3.0)
Professional experience	5–10 years	5 (11.9)	3 (9.1)
	10–20 years	12 (28.6)	10 (30.3)
	>20 years	25 (59.5)	20 (60.6)
Level of studies	PhD	4 (9.5)	4 (12.1)
	PhD candidate	2 (4.8)	2 (6.1)
	Master	26 (61.9)	20 (60.6)
	Postgraduate or other	10 (23.8)	7 (21.2)
Professional profile	Nurse teacher (academic)	1 (2.4)	1 (3.0)
	Research nurse	2 (4.8)	2 (6.1)
	Advanced practice nurse	35 (83.3)	28 (84.8)
	Nurse manager	4 (9.5)	2 (6.1)
Work centre	Hospital with <500 beds	6 (14.3)	3 (9.1)
	Hospital with ≥500 beds	11 (26.2)	9 (27.3)
	Comprehensive Cancer Centre	22 (52.4)	18 (54.6)
	University	3 (7.1)	3 (9.1)
Experience as an APN[a]	<3 years	6 (17.2)	3 (10.7)
	3–5 years	5 (14.8)	4 (14.2)
	>5 years	24 (68.5)	21 (75.0)

[a]$N = 35$ advanced practice nurses (APNs) were among the participants in round 1, and $N = 28$ in round 2.

TABLE 2 Degree of consensus on the definition of competency domains and on the competencies to be developed

Competency domain and specific competencies	Round 1 $n = 42$	Round 2 $n = 33$	Must be developed
1. DIRECT CLINICAL PRACTICE			
Competency domain is part of APN role	95.2	100	–
Provide direct care to the patient and family	100	100	–
Demonstrate experience in cancer prevention and detection	64.3	–	100
Perform clinical practice autonomously	83.3	81.8	–
Demonstrate a high degree of knowledge of the oncological process and the needs of cancer patients	92.9	97	–
Develop and implement suitable treatment for complex cancer patients	73.8	–	81.8
Act as an expert clinician (clinical judgement)	71.4	–	100
Adopt a holistic perspective in nursing practice	97.6	97	–
Apply critical thinking in decision-making in complicated, unforeseen and dynamic situations	88.1	81.8	–
Apply reflective practice	76.2	78.8	–
Use evidence-based knowledge in the planning and implementation of nursing care	83.3	84.8	–
Coordinate the patient care process and mobilize resources to give the patient comprehensive care	88.1	93.9	–
Develop assessment strategies to evaluate the needs of the patient, family, and population	97.6	90.9	–
Monitor, evaluate and analyse the results of their interventions	57.1	–	100
Participate in clinical trials or studies for specific research	71.4	–	100
Perform different types of nursing care: Coaching, consultation, mentoring, collaboration	52.4	–	95
Provide care to treat the psychosocial needs of cancer patients	92.9	87.9	–
Demonstrate the capacity to anticipate, manage and respond to a wide range of real or potential health problems that the patients may develop	90.5	93.9	–
Plan the objectives and the care plan in collaboration with the patient and their family	85.7	90.9	–
2. HEALTH PROMOTION			
Competency domain is part of APN role	95	87.9	–
Strive to empower people, groups and communities to adopt health lifestyles and self-care habits	73.8	–	100
Identify the needs of people, groups and communities for whom specific measures can be taken with respect to health promotion and cancer prevention	66.7	–	100
Participate in the evaluation of the results of different healthcare promotion programmes	31	–	96.5
3. EDUCATION			
Competency domain is part of APN role	100	97	–
Evaluate the educational needs of the population	31	–	89.6

(Continues)

TABLE 2 (Continued)

Competency domain and specific competencies	Round 1 $n = 42$	Round 2 $n = 33$	Must be developed
Identify the educational needs of patients, students, nurses and other professionals	69	—	84.6
Plan, coordinate and run educational programmes based on the needs detected	47.6	—	100
Implement specific educational programmes	54.8	—	100
Provide health education to the patient and family directly	90.5	100	—
Participate as a teacher on specific courses and official undergraduate and postgraduate study programmes	71.4	—	100
Monitor, evaluate and record the results of the different educational programmes and initiatives run	33.3	—	96.4
Tutor healthcare workers, university students and other people to acquire new knowledge and skills to help them in their professional practice	76.2	87.9	—
Promote the capacity of patients, relatives and communities to participate in making decisions related to the healthcare process and health needs, in accordance with the preferences of the patient, family and/or communities and the resources available	81	75.8	—
Have skills to guide and teach throughout the implementation of treatment and patient care, to the patient, family and the profession itself	90.5	93.9	—
4. CONSULTATION			
Competency domain is part of APN role	97.6	97	—
Provide consultation services in relation to clinical practice, theoretical knowledge and evidence-based practice	90.5	75.8	—
Respond to specific enquiries about complex care of cancer patients	92.9	84.8	—
Respond to specific enquiries related to the patients' oncological process	97.6	93.9	—
Respond to specific enquiries related to the patients' care	100	97	—
Provide clinical and expert administrative consultation	85.7	90.9	—
Make contributions for recommendations adapted to the patients' needs and personalized consultation	97.6	97	—
5. EVIDENCE-BASED PRACTICE			
Competency domain is part of APN role	97.6	100	—
Promote the development of evidence-based practice in the care of the patient, family, community and the population in general	78.6	72.7	100
Actively search for and participate in reviews of current evidence in relation to practice	54.8	—	100
Continuously incorporate changes in the best practices	76.2	60.6	100
Identify areas of practice in which there is a lack of evidence and knowledge	73.8	—	100
Participate in drafting and revising clinical practice guidelines related to healthcare practice	78.6	63.6	100

(Continues)

TABLE 2 (Continued)

Competency domain and specific competencies	Round 1 $n = 42$	Round 2 $n = 33$	Must be developed
Disseminate new evidence throughout teams and institutions	73.8	—	100
6. CLINICAL AND PROFESSIONAL LEADERSHIP			
Competency domain is part of APN role	97.6	97	—
Have a vision for oncological nursing practice and patient care and are able to articulate and implement this vision	81	81.8	—
Participate and lead the development and implementation of good care practices, clinical practice guidelines and protocols.	78.6	57.6	100
Develop negotiation and influencing skills for implementing and improving nursing practice	64.3	—	100
Identify needs for change based on the assessment of the patients' needs, generating innovative practices and redesigning solutions to improve the response to the patients' needs and the care provided	69	—	80
Apply practices and roles in line with the patients' health needs based on epidemiological, health, social, legal, political, ethical, professionals and development changes	59.5	—	94.1
Provide leadership in multidisciplinary committees or in the profession itself with respect to the development, implementation and evaluation of policies, procedures, education, research, quality initiatives and clinical practice	45.2	—	100
Work proactively at professional, institutional and systemic level, developing new collaborations and networks of influence for improving the provision of cancer care in healthcare systems	40.5	—	96
Strive to improve the access, quality and cost-effectiveness of healthcare	61.9	—	93.8
7. COLLABORATION AND INTERPROFESSIONAL RELATIONS			
Competency domain is part of APN role	97.6	100	—
Work with the multidisciplinary team to provide comprehensive care to the patient, family and community	100	90.9	—
Work with the patients, families and carers throughout the continuum of care	95.2	93.9	—
Identify potential barriers that may pose an obstacle to collaboration	97.6	93.9	—
Develop and foster collaborative relations with the community and the healthcare system	66.7	—	100
Act as a mediator between the different professionals involved in the healthcare provided	92.9	87.9	—
Improve coordination between the different levels of healthcare	88.1	84.8	—
Provide support in the design and implementation of new healthcare policies	42.9	—	84.6
Reinforce cohesion and communication within the healthcare team	85.7	87.9	—
Balance the workloads evenly	57.1	—	88.8
Optimize referrals to other professionals.	90.5	97	—

(Continues)

TABLE 2 (Continued)

Competency domain and specific competencies	Round 1 $n = 42$	Round 2 $n = 33$	Must be developed
Organize and ensure the monitoring of healthcare processes	92.9	90.9	—
8. ETHICAL DECISION-MAKING			
Competency domain is part of APN role	95.2	97	—
Participate in sessions to identify and provide support for the discussion of moral and ethical issues or problems	61.9	—	93.8
Provide leadership in multidisciplinary teams that deal with any ethical or moral disputes that may arise over the course of the process of the illness	47.6	—	95.5
Respect the choices of individuals, providing care without judgement or prejudice, upholding the patients' rights, decisions, autonomy and cultural and spiritual beliefs.	88.1	93.9	—
Foster discussion on advanced care planning at an individual and systemic level	64.3	—	100
Identify, articulate, and actively participate in the ethical matters of the patient, family, professionals, organization and the community and even at a political level	50	—	90.4
9. QUALITY IMPROVEMENT			
Competency domain is part of APN role	97.6	97	—
Develop strategies, projects, and activities, monitoring and improving the quality and efficacy of care	64.3	—	100
Anticipate the variability of clinical practice and are proactive in implementing interventions that guarantee quality	71.4	—	100
Promote improvement in terms of practice and health outcomes in accordance with national and international standards by initiating, facilitating, disseminating and leading changes at an individual, team, organisational and systemic level	45.2	—	100
Continuously evaluate research results and apply them to improve practice	38.1	—	100
Plan and measure opportunities to generate and apply knowledge to practice in processes that can be measured or assessed	33.3	—	100
Consider the perspective of the cost-effectiveness of the patient, team, organization and system when making decisions and use suitable strategies for improving efficacy and efficiency	42.9	—	91.6
10. PROFESSIONAL DEVELOPMENT			
Competency domain is part of APN role	90.5	100	—
Actively search for and participate in reviews of current evidence in relation to practice	71.4	—	91.6
Take responsibility for a lifelong learning process for their own professional development and maintaining their professional competencies	92.9	87.9	—
Have communication skills and contribute towards the development of the work in the areas of practice with publications and the	71.4	—	100

(Continues)

TABLE 2 (Continued)

Competency domain and specific competencies	Round 1 $n = 42$	Round 2 $n = 33$	Must be developed
dissemination of their work through presentations at conferences and articles in professional journals			
Disseminate nursing knowledge and research through presentations or publications at a national and international level	59.5	—	100
Participate in collaborative projects with academic institutions	54.8	—	89.5
Participate in continuous reflective practices to improve competency and professional growth	42.9	—	95.8
Take part in continuous training activities and actively participate in professional and specialist nursing organisations/societies	59.5	—	94.1
Perform their duties in accordance with the legal and ethical guidelines established by the regulatory body of the profession.	76.2	81.8	—
Demonstrate an understanding or the legislative and sociopolitical issues that affect decision-making and develop strategies to influence the health results and healthcare policies	59.5	—	82.4
11. RESEARCH			
Competency domain is part of APN role	88.1	97	—
Consistently apply research in the care of cancer patients and the family	64.3	—	93.3
Evaluate clinical practice taking the most recent research findings into account	54.8	—	100
Identify and participate in research on relevant issues in relation to caring for cancer patients as a lead researcher or in collaboration with other members of the healthcare team	57.1	—	94.4
Participate in reviewing research proposals	40.5	—	100
Identify and put forward priority proposals for nursing research in their areas of professional practice	54.8	—	100
Act as a resource for other nurses	71.4	—	100
Interpret and disseminate relevant research results and link them to clinical practice	52.4	—	95.0
Coordinate clinical research projects as a research expert	23.8	—	96.9

and Tarragona. All APNs stated that they worked in multidisciplinary teams. Participants in round 2 showed a similar professional profile (Table 1).

3.2 | Results of the first round

Table 2 shows the results with respect to the 11 proposed competency domains. The consensus achieved regarding the pertinence of these domains to the APN role ranged from 88% to 100%. With respect to the specific competencies performed by oncology APNs, panel members did not reach an acceptable consensus for 52 out of 90 competencies (57.8%) in round 1 (Table 2).

The APN competencies attracting the most agreement fell under the domains of direct clinical practice, consultation and collaboration and interprofessional relations. Meanwhile, none of the competencies pertaining to health promotion, quality improvement or research reached the minimum level of consensus. On the other hand, there was a good level of agreement (81.8% to 100%) that these 52 competencies should be part of the APN's role (Table 2).

3.3 | Results of the second round

In the second round, the consensus on the definition of the 11 competency domains remained over 87% in all cases (Table 2). Of the 38 specific competencies that met the threshold for consensus in the first round, four competencies (10.5%) did not reach a consensus of 75% in the second. Three of these belonged to the domain of evidence-based practice, and the remaining one was classified under the domain of clinical and professional leadership (Table 2). All panel members agreed that these four competencies should be part of the APN role (Table 2).

TABLE 3 Determinants of competency development among advanced practice nurses in oncology, according to Delphi panel members ($N = 151$ responses)

Determinants related to competency development, *n* (%) responses
Resources, 9 responses (5.9%) Material and financial resources; access to scientific articles, databases ***Associated competency domains***: Direct clinical practice; education; evidence-based practice; quality improvement; professional development
Nursing knowledge, 12 responses (8.0%) Knowledge exchange, networks, forums; research expertise; multidisciplinary clinical nursing sessions; coordination with universities and schools; methodologies for reviewing evidence and drafting clinical practice guidelines ***Associated competency domains***: Direct clinical practice; education; evidence-based practice; ethical decision-making; quality improvement; professional development; research
Education, 44 responses (29.1%) Education; specific education related to the different domains; PhD-level education ***Associated competency domains***: Direct clinical practice; healthcare promotion; education; consultation; evidence-based practice; clinical and professional leadership; collaboration and interprofessional relations; ethical decision-making; quality improvement; professional development; research
Leadership, 18 responses (11.9%) Empowerment; autonomy in decision-making and recognition of nursing professionals; leadership capacity; positions of influence for nurses in relation to healthcare policies; greater participation in decision-making; performance of nurse-led studies; greater presence in healthcare promotion programmes ***Associated competency domains***: Direct clinical practice; healthcare promotion; education; consultation; clinical and professional leadership; collaboration and interprofessional relations; ethical decision-making; quality improvement; professional development; research
Availability of time, 23 responses (15.2%) Time for research within working hours; time during patient visits; time for training; time for activities in different competency domains ***Associated competency domains***: Direct clinical practice; healthcare promotion; education; evidence-based practice; quality improvement; professional development; research
Workload, 8 responses (5.3%) Reducing workloads; balancing the workload evenly within teams; reducing the patient/nurse ratio; reducing workloads to spend more time on research ***Associated competency domains***: Direct clinical practice; healthcare promotion; education; collaboration and interprofessional relations; quality improvement; professional development; research
Community healthcare system, 15 responses (9.9%) Collaboration with primary care for health promotion; coordination within the system; improving relations between primary and hospital care; health programme ***Associated competency domains***: Direct clinical practice; healthcare promotion; education; clinical and professional leadership; collaboration and interprofessional relations
Outcomes evaluation, 9 responses (6.0%) Improving command of tools for analysing outcomes of nursing interventions; tools that enable outcomes evaluation in health programmes; data management tools for recording, monitoring, and analysing outcomes; tools for establishing and evaluating indicators; continuous evaluation of practice ***Associated competency domains***: Direct clinical practice; healthcare promotion; education; quality improvement
Development of nursing practice, 4 responses (2.6%) Treatment protocols; autonomous decision-making ***Associated competency domains***: Direct clinical practice; education
Attitudes/behaviours, 5 responses (3.3%) Perseverance; involvement and responsibility of nursing professionals ***Associated competency domains***: Education; evidence-based practice; clinical and professional leadership; professional development; research
Role of institutions, 4 responses (2.6%) Institutions' recognition of the value of APNs; maturity of the teams; institution-supported professional development and facilities ***Associated competency domains***: Education; collaboration and interprofessional relations; professional development; research

3.4 | Factors required for developing APN competencies in oncology

The open question, designed to identify the factors required for developing the competencies that did not obtain a consensus of 75%, yielded 151 responses. The domain garnering the most interest was direct practice (17.2%), followed by education (15.2%). Both the research and quality domains were highlighted in 11.3% of the responses. The domain with the fewest responses was consultation (2.0%).

The responses are grouped by topic in Table 3. Specific training as a factor required for APN competency development was mentioned in all domains and accounts for 29.1% of the responses. Reserved time to develop the competencies is mentioned in 15.2% of the responses, under seven competency domains. Another 11.9% of the responses were related to leadership, for instance, calling for autonomy in decision-making, nurses' leadership capacity and empowerment. These responses were associated with the competencies in 10 of the 11 domains. Relations with the community and between the different levels of the health care system accounted for 9.9% of the responses, while factors related to nursing knowledge were highlighted in 8.0%. Other issues mentioned included resources, workloads, nursing practice, the nurses' attitude and the role of the institutions (Table 3).

4 | DISCUSSION

The study sought to identify areas of consensus in the definition of competency domains and in the development of APN competencies in oncology, taking as a starting point the competencies defined by scientific oncology societies (CANO/ACIO, 2001; EONS, 2018; ONS, 2019) and the Hamric model (2014). In addition, we explored the difficulties in implementing the competencies that were underdeveloped.

Broad consensus was obtained in both rounds in terms of the definition of the competency domains, but with regard to the specific competencies comprised within them, the first round yielded a consensus on just 38 out of 90 competencies (42.20%) that the panel agreed were performed in practice. In the second round, the level of agreement fell further, to 34 competencies (37.77%). Despite the low level of implementation reported, panellists broadly agreed that all competencies described should be part of daily APN practice.

In general, our results indicate a limited implementation of advanced practice nursing in oncology. Although the study reflects some development of APN competencies, it is evident that this development stops short of fulfilling its full potential. These results are in line with other studies in our context (Sevilla Guerra et al., 2018, 2021). In the absence of any regulations on advanced practice in Catalonia, the initial implementation of these roles tends to be oriented more towards clinical practice than the holistic development of the full scope of practice, with the roles created in response to the needs emerging in different settings.

There was a high level of consensus around the performance of the different competencies encompassed under the domains of direct clinical practice, consultation and collaboration and interprofessional relations. These findings may be associated with the fact that APNs work in multidisciplinary teams, coordinate care processes and provide direct care to patients and families, serving as focal points for the patient and family as well as for other professionals. They also work autonomously, demonstrating in-depth knowledge about individual patients, which hones their ability to anticipate, manage and respond to patients' health problems. The competencies that did not obtain consensus in these domains were related to the monitoring and evaluation of outcomes and the performance of specific interventions such as coaching, mentoring, counselling and the balance of workloads.

Other domains in which the competencies did not reach the cut-off for consensus were health promotion, evidence-based practice, research, and quality improvement. Likewise, there was no consensus on the performance of specific competencies from other domains such as leadership or ethical decision-making, which encompass outcomes evaluation, research, participation in health policies, competencies related to the community or the population, dissemination of results and evidence review.

Sevilla Guerra et al. (2021) reported similar results, although these are not entirely comparable due to differences in the study design; in that study, advanced practice was described as focusing on the domains of planning expert care and comprehensive care. In the domains of research and evidence-based practice as well as professional leadership, a lower proportion of nurses met the standard established.

Goemaes et al. (2019) reported that nurses carried out activities mainly in the domain of the patient and family and also of the team and the health care organization. Regarding their role, APNs dedicated the most time to acting as expert clinicians and the least to exercising leadership, while they did not carry out any specific activities in the area of ethical decision-making.

Our results differ from those obtained by Jokiniemi (2018, 2021), who reported limited time spent on direct patient care or contact by APNs; in contrast, direct clinical practice was one of the most highly developed competency domains in our study.

It is difficult to specifically compare the implementation of advanced practice competencies in different settings or even countries since the tools used for its evaluation are different (Gardner et al., 2016; Jokiniemi et al., 2021). In both the study of specific advanced practice competencies and the tools to identify advanced practice, the definition of domains or spheres of competencies are different, although the definition of competencies is possibly very similar.

In our study, the need for specific education was the aspect most frequently cited in relation to underdeveloped competencies, and this was associated with all competency domains. Jean et al. (2019) highlighted the lack of a legal framework or vision of the APN role in Spain as a barrier to the development and implementation of advanced nursing practice, so regulations establishing education and certification standards would favour the full development of advanced

practice and improved health outcomes for patients (Heale & Rieck Buckley, 2015). On the other hand, the strategic, complete implementation of the APN role requires the involvement and support of the organization's managers and administrators, as well as the availability of curricula to educate and empower APNs (Dowling et al., 2013; Goemaes et al., 2019; Van Hecke et al., 2019).

Apart from education, constraints on time, space and resources were described as hampering the development of research competencies. In addition, nurses reported the need for more time for direct clinical practice, health promotion, education and teaching, and evidence-based practice, suggesting that heavy workloads prevented them from developing practice-specific competencies (Goemaes et al., 2019). This information is relevant and may be useful to managers working towards the implementation of these advanced practice roles.

Other aspects of interest were related to the generation of evidence-based knowledge and practice, the lack of coordination with universities, the educational level of nurses and the need to exchange knowledge with other oncology APNs. In Ryder's (2019) study, APNs were associated with autonomous decision-making and the exercise of leadership to improve care delivery, but the need for support from academic nurses in the area of research was also detected.

In our study, the lack of tools to evaluate both nursing practice and the outcomes of nursing interventions was linked to the development of competencies related to the quality of care and research. This finding points to the need to implement evaluation tools to better understand the impact of APN care on patients and on the health system.

At the same time, there was broad consensus on the APNs' performance of clinical leadership in terms of autonomous decision-making for the patient; however, difficulties in implementing leadership within teams, institutions and the health system reflected some lack of empowerment on the part of the nurses along with limited institutional support for the implementation of the roles, professional development and recognition of the value of oncology APNs. This translates into a restricted vision of the APN in the hospital setting and the lack of community programmes involving APNs, as well as difficulties in establishing circuits and communication between different levels of care. These findings are in line with Heinen et al. (2019) in terms of the need to develop clinical, professional and system leadership by APNs so that they can exert influence at a strategic level and share an organisational vision on quality improvement.

4.1 | Limitations

The limitations of this study reside in the research and analysis method. While the Delphi method is generally considered an effective tool for determining expert consensus, it has also been criticized for its susceptibility to various biases. A significant limitation of the Delphi technique comes from the definition of consensus itself, as there is little agreement on how best to define the term (Keeney et al., 2011; Williams & Webb, 1994). The definition of consensus is thus inherently determined—at least to some extent—by the researcher's subjective opinion. Another limitation of the study is that not all Catalan provinces were represented, as the panel included only the experts who agreed to participate. Thus, the competencies identified may not be appropriate for all regions or hospitals.

Moreover, it is unknown how many nurses work in advanced practice positions, as there is no register of this type of nurses either at a regional level in Catalonia or nationally in Spain (Sevilla Guerra et al., 2018).

In our study, and following ICN criteria with respect to training for APNs, 76.2% and 78.9% (depending on the round) of the nurses who took part in the study had at least a master's degree.

Despite providing information to panel members about the Delphi method, sending reminder emails for each round and giving feedback after the first round, the dropout rate between the first and second questionnaires was 21.4%. This is consistent with the response rates of other Delphi studies, with rates varying between 15% and 80% (Barrett et al., 2001; Mcilfatrick & Keeney, 2003).

5 | CONCLUSIONS

This study describes the scope of the competencies exercised by oncology APNs in Catalonia and identifies the competencies that still need development. Implementation of advanced practice roles in the oncology field in Catalonia is a work in progress. Domains related to direct clinical practice, consultation, and collaboration and interprofessional relations are relatively well developed, whereas leadership, research, evidence-based practice and quality improvement are not. Thus, our results indicate that APN practice in Catalonia is aligned with the ICN definition (ICN, 2020) of the clinical nurse specialist with regard to the clinical competencies performed, but not in terms of the indirect competencies associated with this role.

Obstacles to implementation were related to nurse education, leadership skills, time constraints and relationships between the different care levels of the health system and the community. Identifying these barriers can facilitate the design of strategies that allow further development of APN competencies, improved nurse education, explicit definition of professional roles and more precise job descriptions for use by nurse managers.

In terms of the development of competencies among oncology APNs, the results of this study enable further progress in integrating and standardizing the APN role in this setting. In a context with no regulations on advanced practice nursing, a better delineation of competencies can contribute to more clarity in the role and facilitate management decisions in care institutions—elements that must necessarily underpin the development of advanced practice nursing and optimal patient care in institutions delivering cancer care.

There is a need to develop a competency framework and nursing practice standards, which can lay the foundation for defining educational requirements and designing a certification system to support the implementation of advanced practice nursing. This study could be a starting point to establish such a framework. This is a very initial investigation of the competency development in oncology APNs in

Catalonia. Future studies are needed to obtain a deeper understanding of advanced practice, real-life performance of the different competencies and more specifically, the impact of settings and contexts.

6 | IMPLICATIONS FOR NURSING MANAGEMENT

The underdeveloped competencies identified in this study, together with the barriers hindering progress, should be analysed by administrators and institutions. Nurse managers should reflect and be mindful of the difficulties they may encounter when leading efforts to implement advanced practice roles. Shedding light on these challenges can enable the design of strategies that promote the development of the full scope of APN practice.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

ETHICS STATEMENT

The directors of participating hospitals and the Ethics Committee of the Hospital Universitari de Bellvitge approved the protocol (PR277/18). The study complied with the bioethical regulations (Declaration of Helsinki, 2013) and applicable legislation, including Organic Law 3/2018 on Personal Data Protection and Guaranteeing Digital Rights, and EU Regulation 2016/679 on General Data Protection.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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4.2. Article 2

ARTICLE ORIGINAL 2: Manuscrit

Títol	*The role experience of advanced practice nurses in oncology: An interpretative phenomenological study.*
Autors	Serra-Barril, M.A, Ferro-Garcia, T., Fernández Ortega, P., Sánchez-López, C., Martínez-Monblan, M.A., Benito-Aracil, Ll., & Romero-García, M.
Referència	***
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Quartil en la categoria1	Q1
Posició en la categoria1	11/125 (SCIE)
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The role experience of advanced practice nurses in oncology: An interpretative phenomenological study

Journal:	*Journal of Advanced Nursing*
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Manuscript Type:	Empirical Research Qualitative
Keywords:	Advanced Practice, Cancer, Care, Clinical Nurse Specialist, Focus Groups, Hermeneutics, Leadership, Phenomenology, Practice Development
Category:	Nursing

Table 1. Focus group script

1. With regard to the role of advanced practice nurse (APN), what are the functions that you consider define you as APNs in cancer care? 2. Based on your experience as an APN, could you explain what the performance of this role entails? 3. What factors or elements make it difficult for you to perform your role as APN? 4. Based on your experience as an APN, what factors or elements do you think help you perform your role?

Table 2. Participating APNs by type and size of center

Type and size of center	N=21
General hospital <500 beds	3 (14.1%)
General hospital >500 beds	5 (23.8%)
Specialized cancer center	13 (62.1%)

Table 3. Number of participating APNs, by disease or specialty of service

Disease or specialty	APNs (N=21)
Breast cancer	4
Neuro-oncology	1
Acute leukemia and myelodysplastic syndromes	1
Lung cancer	1
Multiple myeloma	2
Hematopoietic stem cell transplantation	2
Lymphoma	1
Oncology clinical nurse	4
Hematology clinical nurse	1
Palliative care	2
Clinical trials	1
Genetic counselling	1

Table 4. Categories, subcategories, and emerging codes

Role performed		
Attributes		Experience
		Specific knowledge
		Expert knowledge
		Up-to-date knowledge
		Problem-solving
		Agility
		Flexibility
		High level of responsibility
		Capacity to make complex decisions
		Clinical and professional leadership
		Defense of the role
		Team confidence
		Independence
Functions	*Care*	Person-centered care
		Accompaniment
		Care process
		Comprehensive care
		Bond
		Trust relationship
		Telephone support
		Toxicity management
		Symptom management
	Education	Health education
		Teaching
	Consultation	Reference figure
		Guide
	Coordination	Case management
		Liaison
		Referrals
	Research	Clinical trials
Contributions of the role		Accessibility
		Continuity of care
		Effectiveness
		Efficiency
		Optimal resource use
		Facilitator of teamwork
		Patient safety
Facilitators and barriers		
Facilitators		Professional attitude
		Willingness to advance
		Advanced training
		Decision-making protocols
		Team support
		Feeling part of the team
		Recognition of the role by the team
		Training stays
		Networks
Barriers	*Organizational*	Mismatched working hours

		Organization of workday
		Care overload
		Lack of workspaces
		Administrative tasks
		No job description
	Institutional	Lack of training support
		Lack of research support
		Lack of recognition
		Ignorance of the role
		Lack of professional development
		Lack of definition of the service portfolio
		Poor visibility of APNs
		Medicalized system
		Difficulty in evaluating outcomes
	Regulatory	Confusion about functions
		No delimitation of competencies
		Unclear role
		Lack of certification system
		Lack of a training system
		Lack of a legal framework
		No regulated training
		Training difficulties
Lived experience of the role		
Positive feelings		Empowerment
		Self-assuredness and confidence
		Satisfaction
Negative feelings		Fatigue with having to prove oneself
		Impotence
		Frustration
		Dissatisfaction
		Stress
		Hopelessness
		Demoralization

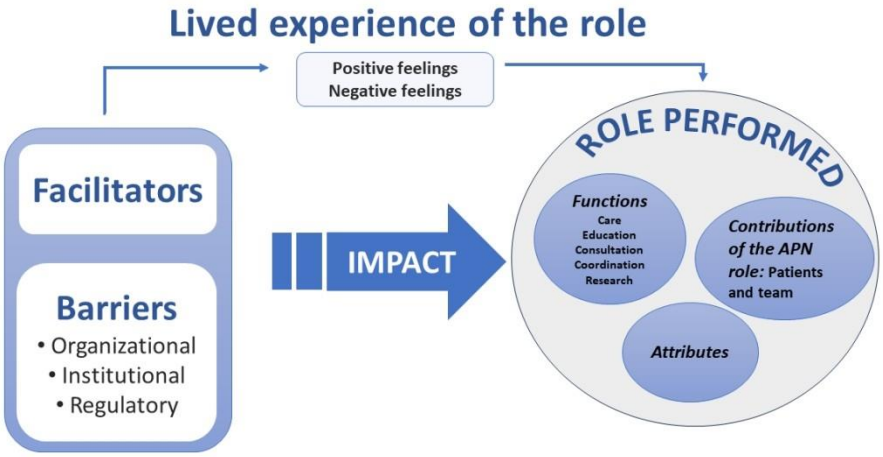

Figure 1_Relationship between emerging categories

338x190mm (96 x 96 DPI)

The role experience of advanced practice nurses in oncology: An interpretative phenomenological study

Abstract

Aim(s): To understand the experiences of advanced practice nurses working in cancer care.

Design: Phenomenological qualitative study.

Methods: Three focus groups were held to collect qualitative data. Participants were recruited through theoretical non-probabilistic sampling of maximum variation, based on 12 profiles. Data saturation was achieved with a final sample of 21 oncology advanced practice nurses who were performing advanced clinical practice roles in the four centers from December 2021 to March 2022.

An interpretative phenomenological analysis was performed following Guba and Lincoln's criteria of trustworthiness. The centers' ethics committee approved the study, and all participants gave written informed consent. Data analysis was undertaken with NVivo 12 software.

Results: Three broad themes emerged from the data analysis: the role performed, facilitators and barriers in the development of the role, and nurses' lived experience of the role.

Conclusion: Advanced practice nurses are aware that they do not perform their role to its full potential, and they describe different facilitators and barriers. Despite the difficulties, they present a positive attitude as well as a capacity for leadership, which has allowed them to consolidate the advanced practice nursing role in unfavorable environments.

Implications for the profession: These results will enable institutions to establish strategies at different levels in the implementation and development of advanced practice nursing roles.

Reporting Method: Reporting complied with COREQ criteria for qualitative research.

Patient or public contributions: No patient or public contribution

Key words: Advanced practice nursing, barriers, facilitators, interpretative phenomenological study, oncology nursing

What does this paper contribute to the wider global clinical community?

- Describes the influence of clinical and professional leadership capacity on the development of advanced practice.
- Reports on organizational and institutional barriers to the advanced practice role
- Provides evidence supporting the need for a regulatory framework for advanced practice.
- Sheds light on nurses' lived experience of the difficulties in the implementation of the role

1. INTRODUCTION

Changes in population health needs (Goryakin et al., 2020) require new health care strategies, including new professional roles such as advanced practice nurses (APNs) (Bryant-Lukosius et al. 2017; Tracy & O'Grady, 2018; Wheeler et al., 2022). According to the International Council of Nursing (ICN, 2008): "An Advanced Practice Nurse (APN) is one who has acquired, through additional education, the expert knowledge base, complex decision-making skills and clinical competencies for expanded nursing practice, the characteristics of which are shaped by the context in which they are credentialed to practice".

A concept analysis by Dowling et al. (2013) reveals the confusion surrounding the definition of APN, disparities in practice and educational requirements across countries and contexts, a variety of roles performed, a range of associated degrees and titles (including clinical nurse specialist, nurse practitioner, midwife, and clinical nurse consultant), and difficulties in identifying the contributions of APNs in health care (Heale & Buckley, 2015; Unsworth et al., 2022; Wheeler et al., 2022). Despite these differences in the roles of advanced nurses identified by a range of authors (East et al., 2015; Jokiniemi et al., 2012; Hutchinson et al.2014), they conclude that there are more similarities than differences in the role descriptions and that the differences are likely resulting from decisions at the organizational or individual level, rather than the national level.

2. BACKGROUND

Today, cancer care requires new strategies, both to respond to the growing population affected worldwide by the increased incidence and longer survival (WHO, 2020), and to manage the increased complexity of care, linked to advances in treatment. Cancer care is thus undergoing important organizational shifts, such as the widespread implementation of multidisciplinary teams to provide efficient, high-quality, person-centered care (Borras et al., 2014; Selby et al., 2019; Winters et al., 2021) and the adoption of new advanced practice nursing roles (Prades et al., 2015; Serena et al., 2018; Westman et al., 2019).

In that line, APNs have the competencies to provide such care throughout the disease process. They are in charge of coordinating patient care, requesting tests, interpreting the results, educating the patient about the tests, monitoring the treatment, managing adverse effects, assessing clinical status, controlling disease-related symptoms, and providing emotional and decision-making support (Davies, 2022; Schneider et al., 2021). Therefore, APNs provide holistic, specialized care that responds to the needs of cancer patients and improves quality of care in

terms of information, accessibility, and involvement in self-care (Kerr et al., 2021; Schneider et al., 2021; Westman et al., 2019).

The presence of an APN on the multidisciplinary team is associated with reductions in mortality, unscheduled admissions, and anxiety, along with improvements in quality of life, satisfaction, and the experience of the disease process (Alessy et al., 2021; Alotaibi, & Al Anzi, 2020; Shneider et al., 2021; Stewart et al., 2021). However, the implementation of this role has been uneven: APNs are well-established figures in countries such as the USA, Canada, the UK, and Australia, while elsewhere their role is still emerging and expanding. This development is characterized by significant variations in the scope of practice, responsibilities, nomenclature, training, and regulation (Wheeler et al., 2022).

Authors like Lopatina (2017) have shown that these roles have developed in specific ways depending on organizational needs, practice settings, and the individual attributes of the APNs. Evidence from the field of practice indicates that contextual factors determine how these roles are implemented (Jean et al, 2019), and different studies have identified facilitators of and barriers to the implementation or development of advanced practice nursing roles (Casey et al., 2019; Fealy et al., 2018; Schirle et al., 2020).

The lack of a clear definition for the APN role (Cook et al., 2021) complicates its development, underscoring the need for job descriptions, a list of APN functions, and a regulatory framework for implementation (Kobleder et al., 2017). In countries like the USA, Canada, and the UK, where the APN position is already consolidated, it is subject to legal regulation and certification, while in countries that have begun to implement these roles more recently, such mechanisms are not yet in place (Unsworth et al., 2022; Wheeler et al., 2022).

In Spain, advanced practice nursing roles exist, although they are underdeveloped and unregulated (Gutiérrez-Rodríguez et al., 2022; Manzanares et al., 2021; Serra-Barril et al., 2022; Sevilla-Guerra, 2018; Sevilla Guerra et al., 2021). The implementation and development of these roles in potentially unfavorable contexts requires research with a variety of approaches. Among the current knowledge gaps, there is a need to better understand the experience of oncology APNs and to identify hindering and facilitating factors in the implementation of their roles.

3. THE STUDY

Aims

The overarching aim was to understand the lived experience of oncology APNs in the implementation and performance of the role. The specific objectives were to describe the

functions that define the APN role and to identify the factors that favor and hinder its implementation and performance.

4. METHODS

Design

This study is part of a larger, three-phase, mixed-methods study. The first phase explored the competencies developed by the APNs; the second, the perceptions held by doctors and patients around the APN role; and the third, reported here, the perceptions of nurses themselves. It uses a qualitative interpretive design, following the COREQ-32 criteria (Tong et al., 2007), and a hermeneutic phenomenological method, from the Heidegger school of thought (Heidegger, 1962; Rodriguez & Smith, 2018; Tuohy et al., 2013). Focus groups were used (Bradbury-Jones et al., 2009), as they enable an understanding of how APNs perceive both their practice role and the factors that favor or hinder their performance in cancer care.

Theoretical framework

The study is framed in the constructivist paradigm, in which reality is seen as a set of different mental constructions, with subjective validity relative to the frames of reference. Socially and experientially based constructions are considered to be local in nature and specific in their form and content. Knowledge is created through the interaction between the researcher and those who respond to them, and the constructions are interpreted using hermeneutical techniques, comparing and contrasting through a dialectical exchange until reaching a more informed and sophisticated construction than the previous ones (Guba, & Lincoln, 1994). Exploring the nursing role requires the recognition of nursing as a discipline. The components of a qualitative research design, informed by the disciplinary epistemology of nursing, will help ensure a logical line of reasoning in our investigations that remains true to the nature and structure of practice knowledge (Thorne et al., 2016). Moreover, the study is of relevance both for the nursing profession and for the care of patients and families.

Study setting and recruitment

The study took place in four tertiary level university hospitals in the public hospital network of Catalonia (Spain), whose oncology services included APNs. Clinical nurse specialists are part of multidisciplinary teams and provide specialized care.

The study population was comprised by nurses who were performing advanced clinical practice roles in the four centers from December 2021 to March 2022. Participants had to be providing

direct care to patients with different cancer diseases and have at least one year of experience as an APN.

Theoretical, non-probabilistic sampling of maximum variation (Kleinman, 2004; Patton, 2014) was used, based on 12 profiles that considered professional experience (1-5 years, 6-10 years and > 10 years) and center. The final sample size reached 21, at which point theoretical data saturation was achieved (Polit & Beck, 2022).

To recruit participants, we emailed the office of the Head Nurse in the participating centers, explaining the study and asking them to identify potential informants according to the profiles provided. The APNs they proposed were then contacted with a description the study and its aims along with an invitation to take part in the focus groups. If they were open to participating, they were sent more detailed information, an informed consent document, a confidentiality form, and the date of the focus group. An invitation was also sent by post. Likewise, the participants were informed that they were free to drop out of the study at any time. None of the participants received any incentive—economic or otherwise—to participate.

Data collection

The focus group was used as a data collection technique (Bradbury-Jones et al., 2009; Powell & Single, 1996; Tubbs, 2012). Each group was comprised of six to eight participants with heterogeneous profiles in terms of professional experience as APNs and workplace (Steward & Shamdasani, 2015).

The focus groups followed a script prepared according to the specific study objectives (Table 1), and they lasted 60 to 90 minutes. A moderator and an observer with no direct relationship to the health care teams were present in all the groups to follow the interactions and non-verbal communication between the participants. The moderator was familiar with the study aims and introduced the topics conversationally, allowing and encouraging the participants to express their experiences, ideas, and thoughts; facilitating participation; and preventing any one participant from dominating (Joyce, 2008).

The investigators were experts with extensive knowledge and experience in cancer services. During the study, the researchers did not have any type of employment or hierarchical relationship with the participants, since they worked in fields like academia, quality assurance, or research.

Due to oscillations in COVID-19 incidence during the study, three different modalities were used for the focus groups. The first was face-to-face, the second had a mixed virtual-physical format, and the third was completely virtual. The Microsoft Teams platform was used for the virtual

convening, which allowed us to interact with the participants. In the context of the pandemic, the participants were used to holding meetings by videoconference (Steward & Shamdasani, 2015).

A recording device was used to collect data during the physical focus groups, and the Microsoft Teams platform was employed to record the interviews conducted by videoconference (Polit & Beck, 2022). Subsequently, the transcripts were returned to each participant for their consent. The participants also filled out a form with sociodemographic data. A field diary was used to record researchers' observations and reflections during the study, composed of theoretical, personal, descriptive, inferential, and methodological notes (Taylor et al., 2016).

Data analysis

All audio recordings were transcribed verbatim into a Microsoft Word document alongside the corresponding field notes. Data collection and analysis were performed simultaneously, using an interpretive phenomenological approach (Quinn & Clare, 2008; Pringle et al., 2011). The research team read the full transcript to obtain a broad overview, then recorded their first impressions in the field diary. A second line-by-line reading followed, where minimum units of data were fragmented and coded. From there, the categorization process began, which consisted of ordering and grouping the codes into subcategories and then larger categories. We then interpreted the categories to arrive at more abstract central themes (Burnard et al., 2008; Morse, 2008; Pope et al., 2000). Field notes were analyzed concurrently with the interview transcripts to add more context to the findings. Two investigators independently performed the primary analysis, and their findings were subsequently reviewed by the remaining co-investigators, who were subject-area experts, and then contrasted with scientific publications on the topic (Birt et al., 2016). The handling and management of the data was carried out using the NVivo v.12 program.

Ethical considerations

The directors of participating hospitals and the ethics committee of the University Hospital Bellvitge approved the protocol (PR277/18) dated 21 June 2018. The study complied with bioethics regulations (Declaration of Helsinki, 2013) and applicable legislation, including Organic Law 3/2018 on Personal Data Protection and Guaranteeing Digital Rights, and EU Regulation 2016/679 on General Data Protection. In compliance with current legislation, participants' confidentiality and privacy were protected through the anonymized coding of personal data along with data encryption and custody. All participants were informed in detail about the study,

and prior to conducting the focus groups, they signed informed consent and a confidentiality form.

Rigor and reflexivity

Lincoln and Guba's criteria (Guba, & Lincoln, 2018) of trustworthiness were applied, as were quality criteria (Gastaldo & McKeever; 2002). Transcripts were returned to each participant to confirm their agreement. Performance of different study phases alternated between data collection, interpretation and systematization, and triangulation among researchers, and participants were also given the opportunity to validate the results (Flick, 2018; Morse, 2018). In relation to quality criteria, the study was framed in the constructivist paradigm; the research question was contrasted with the methods, and the study design was adjusted accordingly.

A process of reflexivity was undertaken to cultivate the researchers' self-awareness of how they approached the phenomenon and self-critical awareness of how to better understand it (Langdridge, 2007). Researchers identified their status and role for the purpose of maintaining their neutrality during the performance of the study. The researchers' attitude and position were essential to maintain negotiated relationships during the research process that were favorable to the contexts and people studied (Moran, 2002). Throughout the research, the researchers were aware of the effect they could have on the study outcomes. They discussed their own subjectivity and their relationship to the object of research, as well as the impact of their interactions with participants. One way to minimize their impact during data collection was to show interest in what the participants said without expressing their own opinions. Reflections about the positionality and potential influence of the researchers on the research outcomes were recorded in the field diary.

5. FINDINGS

5.1. Participant characteristics

Twenty-one APNs participated in the study, all women, with a median age of 50 years (range 29-63). They had a median of 24 years' (range 7-35) professional nursing experience and 9 years' (range 1-19) experience as an APN. Regarding educational level, 76.2% had master's degrees and 23.8% postgraduate studies. They worked in four hospitals of different sizes and service profiles, as shown in Table 2. The distribution of APNs according to the type of patients attended is presented in Table 3.

5.2. Thematic findings

Three major themes emerged from the data analysis: the role performed, facilitators and barriers in the development of the role, and nurses' lived experience of the role (Table 4; Figure1). In this section we outline the themes and their corresponding categories and subcategories.

5.2.1. Role performed

The first major theme is related to the role performed by APNs. The categories that emerged from the APN discourses in relation to their role were attributes, functions, and contributions of the APN.

Attributes

Informants described attributes that defined them as APNs, including experience as well as specific, expert knowledge in oncology, which should be continuously updated: "*Nurses have experience combined with knowledge... you know the disease, the pathways*" (ID09): "*APN nursing knowledge is at another level compared to regular nurses … and evidence-based practice*" (ID18). "*You have to keep up to date about new drugs, care practices, and we have this desire to want to learn, to know, and want to advance*" (ID03). Moreover, they describe APNs as agile, with good problem-solving skills: "*We have a very agile and fast way of working to resolve patient situations as soon as possible*" (ID01). In addition, they specify the high level of responsibility and the ability to make complex decisions: "*We have responsibility, we continuously make complex decisions about treatments that are agreed upon with the team*" (ID09); "*The decision-making capacity that we have ... and the independence to make complex decisions*" (ID02).

Other elements reported were how they exercised clinical and professional leadership: "*We lead patient care, within the multidisciplinary team we have our functions and competencies*" (ID16); "*We play an independent role*" (ID10); "*Nurses feel supported by you ... we have greater knowledge, you are a leader for them*" (ID17); how they defended the advanced practice role: "*Well it's a struggle...you have to negotiate ... defending your skills, and you gradually build a culture*" (ID16); and how they positioned themselves within the teams and the relationship of trust that they established: "*We have earned the recognition of the team and their trust*" (ID04); and how this trust determined the autonomy of the APN: "*You have the trust of the team and can be independent because you have it*" (ID16). They also linked independence to their expertise: "*What makes us independent? Training and experience, right?*" (ID06); "*There is knowledge ... you can suspect a complication or a relapse and you can do visits, tests, etc.*" (ID21),

and this autonomy was considered a quality of leadership within the multidisciplinary team: "*It is important to point out the word autonomy and the word leadership in the team*" (ID09).

Functions performed

Regarding the APNs' functions, five subcategories emerged: care, education, consultation, coordination, and research. In terms of **care**, the APNs stated that they provided person-centered care, accompanying the patient and family and providing care throughout the entire cancer care process: "*From the beginning, from diagnosis and during the disease [process], sometimes until the end, ... and not only the patient, but also the family ... we put them in the center*" (ID03); "*We are with the patient and the family throughout this disease process*" (ID10). The APNs described providing comprehensive care, establishing a therapeutic relationship, creating a bond and a relationship of trust with the patient and family, providing support by telephone, and managing symptoms and the toxicity of the treatments: "*We are the only ones on the team who do a comprehensive assessment of the patient*" (ID12); "*There are intense moments ... you create a bond*" (ID01); "*The patient trusts you a lot, for anything*" (ID20); "*They can call you either for a symptom or a question they have*" (ID01); "*Management of all medication related to pain and side effects*" (ID02).

In relation to the **education** function, the nurses provided health education to empower the patient and family: "*We have an educational role, for the patient and family, empowering the patient so that they know what their situation is and that they are as independent as possible in self-care*" (ID11), and they also worked to educate other professionals: "*There are many master's students who go through the service, and sometimes even newly recruited residents ... we participate in clinical sessions*" (ID 09).

The **consulting** function is reflected in the fact that APNs were reference figures for professionals, patients, and families: "*We are the reference person for the patient, they ask us questions and we guide them in the disease process*" (ID18). They also served as guides for the patient throughout the care process: "*Everyone identifies our figure as a person who understands the entire patient process, and they consult us*" (ID02).

The activities encompassed under the **coordination** function include serving as case managers and as the liaison within the teams and between different levels of care: "*We make sure that everything is coordinated: tests, results, visits and treatment*" (ID19); "*We are the link between the patient/family versus the rest of the team*" (ID10). In addition, they make referrals to other professionals: "*You see the patient's needs and you can refer them to the psycho-oncologist, nutritionist or other professionals*" (ID20).

Finally, regarding the **research** function, the APNs reported that they carry out studies and managed clinical trials. As detailed by the participant ID20, "*we collaborate in research studies, manage samples, and keep records.*"

Contributions of the APN role

The APNs stated that they facilitated the accessibility and continuity of care for patients through telephone support and early detection of complications, thus preventing patients from going to emergency services: "*In some way we improve the process, the care, right? Continuous care, preventing the patient from having to go to the emergency room, right?*" (ID03); "*We have the ability to detect many complications early*" (ID13). In the same way, they provide more effective and efficient care, avoiding duplication of visits, managing resource use, and facilitating teamwork, with a positive cost benefit. They also contributed to the safety of the patient's cancer care process: "*APNs also bring together all the resources so that the patient can carry out a well-coordinated therapeutic plan*" (ID02); "*We are the link ... the management of resources, ... it's a cost-benefit, right?*" (ID04); "*You end up facilitating the work of the multidisciplinary team, if you manage a patient well ... on the other hand, you share the work between different professionals*" (ID19).

5.2.2. Facilitators and barriers in the performance of the APN role

The second theme revolved around the factors that helped or hindered the performance of the role. The barriers are in turn divided into organizational, institutional and regulatory barriers.

Facilitators

As positive elements, the APNs described their professional attitude, their willingness to advance their profession, advanced training, protocols for decision-making, team support, and feeling integrated and recognized: "*Our attitude, we're proactive...this desire to want to learn ... to move forward*" (ID20); "*This desire to want to know, when faced with a new treatment, how to manage its side effects, it's an attitude that you either have or don't have*" (ID01); "*Deciding if the patient is a candidate for the administration of a treatment for toxicity ... well, I feel comfortable, I am trained and there is a protocol...*" (ID18); "*Having the support and recognition of the team matters a lot and helps me*" (ID12); "*When your colleagues recognize this expert knowledge as an APN, you have your role and they will respect whatever you decide*" (ID16). They also believed it would make it easier for them to advance as APNs if they could carry out training stays in other centers and establish an APN network to share knowledge, experiences, and training: "*I think that being able to go to other centers or exchange knowledge outside our institutions would enrich us professionally as APNs*" (ID11).

Barriers

The second category under this theme was barriers. Barriers mentioned by the participants included organizational, institutional, and regulatory barriers.

Organizational barriers

One barrier at the organizational level was different working hours from the rest of the team, which made it difficult to attend the clinical sessions held outside their working hours: "*the scheduling difference with the team; the medical sessions, they are outside our schedule, but within theirs... and yes, I stay for the sessions*" (ID03). In addition, the organization of the working day, dedicated mainly to clinical care, does not allow them to carry out training or research during working hours: "*If you want to do research, you do it after hours because patient care swallows everything*" (ID11); "*You train a lot outside of your working hours*" ID04. At the same time, they describe a situation of care overload: "*We respond at the expense of our free time, right? Because I believe that we don't give 100%, we give more, I believe that the care burden is too much, there are many patients to visit in one day*" (ID03). They also explained that they did not have the right physical workspaces to visit patients and had to perform administrative tasks in inadequate settings: "*Having bureaucratic work or having to find space for consultations ... the other day I ended up explaining a treatment in the waiting room*" (ID04); Finally, they believed their jobs and functions were not well defined: "*Well, it is a struggle ... you have to negotiate ... defend your skills, and you gradually build a culture*" (ID16).

Institutional barriers

The institutional barriers that informants identified respond to the lack of support from institutions in training and research: "*It's difficult for hospitals to train APNs in a specialized way*" (ID21); "*For research, there is a lack of dedicated time and support, at a methodological and financial level*" (ID20). They also described the lack of recognition for the role and functions they performed: "*There is a lack of professional recognition, and we are not recognized economically for our responsibility*" (ID03); "*They don't cover us for vacations, so we have double responsibility ... the patient is left unattended and the work accumulates*" (ID14).

The participants also perceived a lack of knowledge about their role as APNs by professionals who were not part of the teams, including nurses: "*There is a lack of knowledge; management does not fully understand our functions, nor do other professionals or even nurses*" (ID10). Moreover, there was an unclear definition of the service portfolio and a lack of professional development: "*You come to a multidisciplinary team and nobody tells you what your functions*

are … and it depends on you and the team. The hospital management must define the functions of an APN" (ID14).

Finally, the participants commented that there was little visibility for their role because the system is highly medicalized, and it is difficult to assess outcomes: "*The system is so anchored in the doctor that they are even unaware that nurses make diagnoses*" (ID10); "*We should demonstrate what we do, the value that the APNs provide, with satisfaction studies and clinical and economic outcomes*" (ID16). In relation to evaluating the activities carried out, the APNs reported difficulties, such as the lack of tools or defined indicators at the institutional level: "*In the records, sometimes we cannot reflect everything we do, and quantify, [for example], when I put down active listening or emotional support*" (ID01); "*It's difficult to identify all the activities, the steps taken, the patients who have not gone to the emergency room, extracting the data ...*" (ID18); "*To assess the quality of care, we have few indicators, and the institutions should also define them*" (D20).

Regulatory barriers

Finally, some barriers were related to the lack of regulation of advanced practice. The APNs felt there was confusion about some functions, like nurse prescriptions, and about the delimitation of competencies, both in the role performed and the role that should be performed: "*I don't see the boundaries of our role, there is no defined limit, and this allows us to make very medical decisions, right?* (ID02); "*Sometimes I have had to place boundaries on what my competencies are … I don't want to assume competencies that are not mine*" (ID03); "*One of the skills that I do not see us doing is the management of medication in terms of confirming a chemotherapy treatment*" (ID04). Expressing the need to have a certification, a training system, and a legal framework, one participant said, "*It's necessary to have accreditation, that I am qualified, and that's your legal umbrella*" (ID11). At the training level, the nurses reported difficulties in getting adequate training resources for their needs, and that meant they had to participate in medical training: "*Sometimes we have to update ourselves in a self-taught way... to be able to carry out good management of toxicity…*" (ID17); "*I need to have more clinical knowledge, and sometimes I have tried to sign up for medical training, and as a nurse I can't always access it ... my group does not offer the right level of training either*" (ID02).

5.2.3. Lived experience of the APN role

Lastly, the focus groups discussed the lived experiences of the APNs when performing their duties, describing both positive and negative feelings. On the one hand, they felt empowered, self-assured, and confident, as well as satisfied in their role and the care provided: "*Confidence*

in yourself, self-assuredness, knowing what you are doing and being able to respond to it" (ID04); "*Before, people used to take over my consultation, now, I'm very sorry, I can't stand it... I mean... I think that the years give you expertise, right?*" (ID10) "*It is a self-satisfaction, that is, when I can do things well*" (ID01).

As for the negative feelings, informants spoke about the fatigue of having to constantly demonstrate their capacity, and the impotence and frustration arising from not being able to carry out all their functions: "*I am tired of demonstrating what I do as a nurse, of earning my space*" (ID09); "*It's a bit frustrating, we do research in our free time and without support*" (ID09). They also expressed feelings of dissatisfaction and stress from not being able to provide adequate care due to lack of time or care overload, feelings of hopelessness, and a certain demoralization due to the lack of recognition: "*The number of patients, I am overwhelmed, so you have to leave something out, and badly, the patient needs it... but you can't do everything*" (ID02); "*Having to fight to have an office for visits is quite demoralizing, I think they don't value my work... so what am I doing?*" (ID18)

6. DISCUSSION

The results emerging from our study of the perspective of APNs in the implementation and performance of their role in cancer care show a general consensus about the attributes of their role, typical of advanced practice, expert, problem-solving nurses, with specific and advanced expert knowledge, as well as the ability to make complex decisions and assume a high level of responsibility. These characteristics are similar to those of advanced practice nurses in other areas, as shown in several studies (Cook et al.; 2021; Kobleder et al., 2017; van Kraaij et al., 2020) and also with those outlined by the International Council of Nurses (ICN, 2020). Our findings are an important contribution because they make it possible to understand how the APN role is developing in a context in which advanced practice is not regulated.

A key aspect of the development of the advance practice nurse role is the capacity for clinical and professional leadership, according to the review by Wong et al. (2013). Leadership is linked to the quality of care and outcomes for patients, professionals, and organizations, according to Lamb et al. (2018). In our study, APNs linked aspects such as professional experience and clinical expert knowledge to their leadership capacity (see also van Kraaij et al., 2020). In our findings, several attributes and aptitudes stand out in the development of leadership. In particular advanced clinical knowledge emerged as an important factor that helped APNs take on more

responsibility. Expertise was also linked to autonomous decision-making and how they performed both clinical and professional leadership.

In the development of their role, an important factor to emerge from our study is the position of APNs within teams: the ways in which APNs have had to defend the role of advanced practice, demonstrate their capacity, and earn the trust of the professionals that form part of the multidisciplinary team, gaining recognition within their teams and autonomy in complex decision-making. These aspects have been key in the development of the APN role and the capacity to lead, in line with other studies (van Kraaij et al., 2020; Ryder et al., 2019). Our findings reinforce the notion that adequate leadership is crucial to the development of the APN role.

In performing the advanced practice role, key activities that our participants reported included direct clinical practice, consulting, coordination of the care process, interprofessional collaboration, research, and education (Kerr et al., 2021; Schneider et al., 2021; Westman et al., 2019).). The perception of participants in performing as APNs is congruent with that identified in other studies such as the review by Jokiniemi et al. (2012) and with the roles of advanced practice nursing that are defined by ICN (2020), which is also in line with the roles recognized for cancer APNs in other countries (Cook et al., 2021; Kerr et al., 2021; Westman et al., 2019). Our findings stand out in that they reveal that APNs saw themselves as reference figures both for patients and professionals. In terms of patients, the participants viewed themselves as essential in supporting the therapeutic relationship through trust-building, often becoming a guide for patients throughout the care process. With respect to other professionals, the participants saw themselves as people who coordinate the care process and the needs of the patient, responding to complex situations, and who are recognized within care teams for their leadership and their importance for patients.

In addition, participants considered that APNs increased the quality and efficiency of care, facilitating its accessibility and continuity, averting the need for emergency services, and promptly detecting complications, a finding that is congruent with other studies that reveal the contribution of the APN role in caring for cancer patients in multidisciplinary teams elements (Alessy et al., 2021; Alotaibi, & Al Anzi, 2020; Schneider et al., 2020; Stewart et al., 2021).

We identified elements that facilitated the implementation and development of advanced practice roles, such as the attitude of APNs, as well as intrinsic professional factors, such as the willingness and desire to advance professionally (see Fealy, et al., 2018). Our participants also considered essential the availability of decision-making protocols and the advanced clinical training of APNs, in line with findings by Fealy et al. (2018) and van Kraaij et al. (2020).

Additionally, they pointed to the recognition of the APN role and support from the interdisciplinary team, the Integration of APNs into teams, and the relationships established with other professionals, also coinciding with other studies (Fealy et al., 2018; Rivera et al., 2023; Schirle et al., 2020). In contrast to our findings, some studies identify resistance and negative interactions with doctors, as well as an overlap in functions or little support from other professionals (Casey et al., 2019; Jean et al., 2019; van Kraaj et al., 2020).

Finally, being in contact with other nurses and establishing a network for sharing knowledge and experiences were facilitating factors, as also seen in studies by Casey et al. (2019), Rivera et al. (2023), and Wood et al. (2021).

The APNs were aware that advanced practice roles were not being developed to their full potential and that the performance of APN competencies could differ between or even within hospitals, for example in relation to prescribing. This finding is consistent with the literature, which shows that contextual factors influence the development and implementation of advanced practice. For example, studies such as those by Jean et al. (2019), Fealy et al. (2018), and Rivera et al. (2023) have identified barriers to the implementation and development of advanced practice roles.

Nevertheless, we must consider at the institutional and managerial levels how awareness is raised during the implementation and development of these APA roles, given that organizational problems such as heavy workloads, scheduling difficulties, and ignorance of the APN role among professionals and administrators, in addition to lack of support, have been identified as barriers (Casey, et al, 2019, van Kraaaij et al., 2020). These factors make it more difficult for APNs to dedicate time to research, training, and the development of the specific functions of the APN role. In line with Casey et al. (2019) and van Kraaij et al. (2020), our participants found these difficulties to have a negative impact on the development of the role, on the leadership capacity of APNs, on the optimization of APNs as a resource, on the evaluation of the outcomes of APN practice, and, finally, on the quality of care.

The lack of definition of the APN role as well as the lack of clarity in job descriptions was identified as a barrier in how the APN role materialized, provoking confusion and difficulty in the recognition of the role and the functions of the APN among other health professionals and even among APNs themselves. The development of the APN role is conditioned by the surroundings, the team, and APNs themselves, as reported in the revision by Fealy et al. (2018) and the study by Wood et al. (2021). The lack of definition and ambiguity in the APN role has been addressed

in other studies (Casey et al., 2019; Woo et al., 2019). In our study, participants described the need to defend the role that they perform and its functions, while avoiding medical roles.

Difficulties were also reported in assessing APN activities and quantifying their contribution to patient care; these difficulties are related to the lack of clear evaluation systems by the institutions and the lack of nursing research, which are essential for evaluating the impact of these professional roles and in the recognition of the contribution of the APN to health care.

In our study, participants identified as a barrier the lack of access to wide-ranging training, which could limit their ability to perform the APN role, develop themselves professionally as APNs, and acquire essential skills such as leadership, aspects also reported in Fealy et al. (2018) and van Kraaij, et al. (2020).

On the other hand, our participants reported that institutional and legal restrictions can negatively affect the level of autonomy of advanced practice, as also seen in the literature (Fealy et al., 2018; Schirle et al., 2020; van Kraaij et al., 2020; Woo et al., 2019). We concur with our participants that a framework defining the scope of APN practice is essential, since nurses should not feel exposed to risk when they assume more responsibilities than a general nurse, in line with de Geese et al. (2022) and Steinke et al (2018). Therefore, at a regulatory level, as other authors have argued (Casey et al., 2019; Fealy et al., 2018), it is necessary to have a legal framework and a competencies framework, including an accredited training program and degree, which would constitute a legal umbrella for carrying out the role, determine the necessary training, and make it possible to acquire recognized credentials.

Finally, the APNs' lived experience when performing their role had a positive side, in that the participants stated that they felt satisfied with the care provided to the patients and confident in themselves—positive factors related to job satisfaction (Bourdeanu, et al., 2020; Geese et al., 2022, Steinke et al., 2018). In contrast, the lack of formal recognition, the absence of a competency framework, the inability to develop competencies specific to the role, and the perceived need to have to demonstrate their capacity and defend the role generated negative feelings, such as frustration, fatigue, dissatisfaction, and stress. These aspects are related to professional dissatisfaction, as shown in other studies (Geese et al., 2022; Steinke et al., 2018; Woo et al., 2019) and could have an impact on nurse retention and motivation and the quality of care. These findings suggest that administrators should keep in mind barriers that lead to unfavorable practice environments as well as consider how to establish strategies that facilitate the development of the APN role.

Strengths and limitations

One possible limitation is that our sample was small and may have been subject to self-selection bias. We offset this risk by covering all 12 professional profiles proceeding with recruitment and data collection until data saturation occurred (no further relevant new information emerged).

The dynamics inherent to the virtual format of the focus groups could have led to a loss of spontaneity, as well as difficulties on the part of the moderator to manage the group (Steward & Sahamdasani, 2015). Nonetheless, we managed to create an atmosphere of trust that favored the participation of professionals, and the moderator's role allowed the participants the opportunity to express their opinion and experience in relation to the phenomenon.

Most of the professionals had extensive experience as APNs, in teams where this role was well established. A significant proportion of the participants had a career as an APN that stretched from the initial stages of role implementation to its consolidation. At the same time, difficulties were apparent in terms of the definition of the role, competencies, job description, training, and legal status, so the development of the role is likely uneven. While the barriers and facilitators reported by the participants in the implementation of these roles are similar, we do not know how the context influenced this development.

Recommendations for further research

Further progress in the study of advanced practice is crucial, including on contextual factors and training needs of APNs in the oncology field.

Implications for policy and practice

Institutions must become aware of the development of the role of the APN and the value it brings to cancer care in order to facilitate and support its development and clarify the job description. Decision-makers must also understand the possible consequences of this lack of support from managers on the motivation of professionals, human resource retention, professional satisfaction, and the quality of care provided. Finally, at the policy level, professional colleges and nurse associations must work to establish regulatory mechanisms to ensure training and define the legal and regulatory framework that supports the development of advanced practice.

7. CONCLUSION AND RELEVANCE TO CLINICAL PRACTICE

This study sheds light on the experience of APNs involved in cancer care, as well as the facilitators and barriers in the implementation of the role. APNs are aware that they do not

develop the role to its full extent, but they present a positive attitude despite the barriers encountered. This attitude, professional commitment, and their professional and clinical leadership have allowed them to position themselves in the role of advanced practice nurses in unfavorable environments, so the ability to exercise leadership emerges as a crucial component of the role.

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4.3. Article 3

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Patients' and professionals' experiences with advanced practice nursing in cancer care: A qualitative study

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ABSTRACT

Purpose: The growing complexity of cancer treatments requires changes in how care is organized and who provides it. The incorporation of advanced practice nursing roles within multidisciplinary teams can improve care in cancer patients. This study aims to understand the lived experience of cancer patients and multidisciplinary professionals in relation to the care provided by advanced practice nurses (APN).

Methods: Phenomenological qualitative study. Data were collected through in-depth interviews and a field diary. Participants were recruited through convenience sampling; until theoretical data saturation was achieved. An interpretative phenomenological analysis was performed, following Guba and Lincoln's criteria for trustworthiness.

Results: Interviews were performed with 18 professionals and 11 patients, from high-complexity public hospitals between March–December 2021. The main themes that emerged were: Advanced practice nurse role and competencies, Benefits provided by the APN, and Relevant aspects of nursing care.

Conclusion: Advanced practice nurses play a fundamental role in cancer care, making positive contributions to the patient experience and to the multidisciplinary team's work. Elucidating the contribution of advanced practice nurses in oncology will facilitate the definition of their specific competencies and, in turn, the implementation of training and management strategies to consolidate this figure in specialized centers.

1. Introduction

The growing complexity in the approaches taken to treat cancer patients, along with the paradigm shift towards person-centered care, has ushered in changes in healthcare organizations, prompting the emergence of new healthcare roles designed to provide efficient and effective care all along the care pathway (Borras et al., 2014; Winters et al., 2021). Working in multidisciplinary teams (MDTs) allows for more specialized care and better coordination; facilitates communication among professionals and with patients; and contributes to improvements in the diagnostic process, treatment planning, and health outcomes (Muñoz et al., 2018; Prades et al., 2015; Selby et al., 2019).

Cancer care requires advanced nursing roles, with highly knowledgeable, expert professionals who can autonomously provide care and assume a broad scope of practice and competencies (Baileys et al., 2018; Coombs et al., 2020). Within MDTs, the advanced practice nurse (APN) is considered a professional of reference throughout the care process, coordinating clinical follow-up, psychosocial support, and patient education on self-care (Cook et al., 2017; Serena et al., 2018). APNs also guide the care team in managing toxicities and side effects related to cancer treatment, and they guarantee continuity of care and assist in the transitions around the cancer network, monitoring communication between the MDT and the patient (Dempsey et al., 2016; Prades et al., 2015).

Abundant literature confirms that the implementation of APN roles improves the care of cancer patients, especially with regard to information, coordination of care, accessibility of services, and patients' active participation in decision-making. These improvements translate

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to a decrease in anxiety among patients and families, reduced hospital visits, and better clinical outcomes (Alessy et al., 2021; Alotaibi and Al Anizi, 2020; Kerr et al., 2021; Stewart et al., 2021), which all have a positive influence on patients' quality of life and satisfaction. In short, evidence shows that APNs positively transform the patient experience (Kerr et al., 2021; Stahlke et al., 2017; Westman et al., 2019).

In terms of the perspectives of the agents involved in the care relationship, Kilpatrick et al. (2016) found that patients and families perceived that the teams responsible for their care were more effective after the implementation of the APN figure. Specifically, this role helped improve communication, decision-making, cohesion, coordination of care, problem solving, and the focus on the needs of patients and families. Kerr et al.'s (2021) review showed that the APN has a versatile role in responding to variations in the clinical context and constitutes an essential and valuable member of the MDT. In relation to the experience and perception of the APN role by MDT members caring for gynecological patients, specialists consider the APN a reference figure who provides support, information, and health education to patients, while also facilitating communication and access to the system and services, among other roles (Cook et al., 2019).

Worldwide, the APN role has been implemented in different countries, including the USA, Canada, Australia, and the UK. In European countries, implementation is uneven, and not all countries have certification or regulation systems (Wheeler et al., 2022). That said, Switzerland, Finland, and Sweden have already implemented advanced practice roles, with good results (Jokiniemi et al., 2021; Serena et al., 2018; Westman et al., 2019). The development and implementation of these roles depends on systemic aspects like the existence of regulatory mechanisms, the definition of competencies, and specialized training, but also on organizational factors such as institutional support and the maturity of care teams and settings, among others (Jean et al., 2019; Schirle et al., 2020).

In the case of Spain, studies show that the APN role has been incorporated into different settings (primary care, emergency services, acute hospitals) and medical specialties (mental health, oncology) (Gutiérrez-Rodríguez et al., 2022; Manzanares et al., 2021; Serra- Barril et al., 2022; Sevilla-Guerra, 2018; Sevilla Guerra et al., 2022). In the specific field of cancer care, there is no published evidence on the contribution of APNs to cancer care or their essential role within MDTs.

2. Methodology

2.1. Aim

The primary aim of this study was to understand the lived experience of cancer patients and multidisciplinary professionals with regard to the care provided by the advanced practice nurse.

2.2. Design

This phenomenological qualitative study through interviews, can be understood within Heidegger's hermeneutical school of thought (Heidegger, 1962; Rodriguez and Smith, 2018; Tuohy et al., 2013), since people's lived experiences and thoughts are used to discover the hidden meanings of phenomena. The experiences of professionals and patients in relation to APN care are elicited to gain a better understanding of this figure, as a basis for generating detailed knowledge on what it provides to patients, and how it fits into the team and healthcare institutions. The study is framed in a constructivist paradigm, in which reality is seen through different mental constructions, with subjective validity and in relation to the frames of reference. The constructions are interpreted using hermeneutical techniques and are compared and contrasted through a dialectical exchange until achieving a more informed and sophisticated construction than the preceding ones (Guba and Lincoln, 1994).

2.3. Study scope

The study took place from March to December 2021 in four high-complexity public university hospitals (including one center dedicated exclusively to cancer care) in Catalonia (northeast Spain), which together provide care to about 40% of the adult cancer population in the region. These centers have different MDTs according to pathology, enabling coordinated, comprehensive care throughout the disease process, with the patient being visited by different professionals at the same time. APNs form part of these teams, performing advanced roles as specialist clinical nurses, with competencies in care, teaching, and research. They are reference nurses for each pathology, providing specialized care as well as monitoring and coordinating the entire patient care process, from diagnosis to completion of treatment.

2.4. Sampling and selection procedure

The study population consisted of specialist members of MDTs and patients who had received cancer treatment. Non-probabilistic convenience sampling was applied (Kleiman, 2004; Patton, 2014) until reaching the final sample, whose size was determined by data saturation, that is, when no more new themes emerged for the analysis.

Professional participants were selected from MDTs, which included APNs, gynecologists, oncologists, hematologists, surgeons, pulmonologists, radiation oncologists, psycho-oncologists, social workers, and nutritionists, with a minimum of two years' experience on the team. Eligible patients were adults diagnosed with oncological disease, who had received care from an APN during the health-disease process and had completed treatment two to eight months prior to the start of recruitment. We considered that this time period was sufficient for patients to distance themselves from their care experience while also being recent enough to maintain a good recall of their lived experience.

Professionals were contacted via email, as provided by the centers; they were informed of the study aims and methodological aspects and were invited to participate. If they were receptive to taking part, they were given more detailed information and asked to sign informed consent, after which the day and time of the interview were arranged. They were also informed that they were free to leave the study at any time.

Patients were recruited during their programmed follow-up visits to the center, when they were given information about the study and invited to participate. In case of accepting, they were provided with written study information and asked to sign informed consent. The interview was organized to coincide with a scheduled appointment at the hospital.

2.5. Data collection

In-depth interviews were conducted following the recommendations of Kvale (1983), with the aim of obtaining an in-depth understanding of participants' experience (Brinkmann, 2018).

Due to the COVID pandemic, individual interviews with professionals (45–60 min each) were conducted online from March to May 2021 (Jackson et al., 2008), using the Microsoft Teams platform. From October to December 2021, patient interviews took place in person, in a quiet and comfortable hospital room (Brinkmann, 2018), and lasted approximately 30–45 min.

Interviews followed a script based on the specific study objectives, allowing and encouraging the participant to express their ideas and thoughts on whatever they considered important as well as their meanings and definitions (Table 1).

Two people from the research team with experience in cancer care, who did not directly know the participants (Taylor et al., 2016), played the roles of interviewer and observer. Interviews were recorded and transcribed (Polit and Beck, 2010), ensuring the confidentiality and anonymity of the participants. The transcripts were returned to participants via email for validation.

Table 1
Interview guide.

Questions for professionals
1. Could you explain to me what your experience has been like in relation to working with an APN in the multidisciplinary team in cancer care?
2. Regarding the role played by the APN, what competencies do you think the APN has? What functions do you think are most relevant? From your point of view, tell me about other functions that the APN should perform.
3. From your perspective, what benefits do you think APN brings to cancer patient care?
4. What aspects do you think have been most relevant in relation to the care provided by the APN in cancer patients?
Questions for patients
1. How would you describe your experience in relation to your disease process and the nursing care provided by your reference nurse?
2. From your perspective, could you explain to me what nursing care you received, and what helped you during treatment?
3. What has the nurse meant to you? What benefits has having a nurse brought you?
4. What characteristics of the nurse figure have you valued most?

In addition, a field diary was used to record researchers' observations and reflections during the study, based on theoretical, personal, descriptive, inferential, and methodological notes (Taylor et al., 2016).

2.6. Data analysis

Data were subjected to an interpretive, phenomenological analysis (Quinn and Clare, 2008; Pringle et al., 2011). The first phase began with a pre-analysis of the interviews, including a review of the transcripts to identify emerging themes by reading, rereading, and annotating initial ideas. Next, codes were generated and subsequently reviewed and agreed upon by two researchers. A cross-analysis was then carried out to examine the set of transcripts, which included the generation of a complete list of the codes identified in each of the interviews. Afterwards, a theme search was carried out, in which categories and subcategories were created and from which the central themes finally emerged. Finally, the themes were reviewed, defined, and named.

Two investigators independently undertook the analysis. Once the results were drafted, they were reviewed by subject experts (Birt et al., 2016). Data management and analysis were performed using the NVivo 12 program.

2.7. Rigor

Guba and Lincoln's criteria for quality, rigor, and authenticity (i.e., credibility, transferability, dependency, confirmability) were applied (Guba and Lincoln, 2018). The transcript was returned to the participants for validation. Data collection, interpretation, and systematization phases were carried out alternately during the study, and the analysis was conducted through triangulation among the researchers (Flick, 2018; Morse, 2018). The neutrality of the researcher was maintained during the interviews. All data collected were recorded, and transcripts were verbatim. Care was taken to arrange the interviews in a way that facilitated the participation of professionals and patients.

Researchers undertook a process of reflectivity from a position of conscious self-awareness (Langdridge, 2007). Regarding the researcher's positionality, hermeneutical phenomenology recognizes that the researcher cannot obviate their lived experiences and knowledge. The researchers were thus aware of and openly recognized their preconceived ideas and reflected on how their subjectivity was part of the analytical process, and how the knowledge originating in the study could affect their position as researcher (Moran, 2002).

2.8. Ethical considerations

The directors of participating hospitals and the Bellvitge University Hospital ethics committee approved the protocol (PR277/18). The study complied with bioethical norms (Declaration of Helsinki, 2013) and applicable legislation, including Organic Law 3/2018 on Protection of Personal Data and Guarantee of Digital Rights, and EU Regulation 2016/679 on General Data Protection.

All participants received detailed information on the study aims, both orally and in writing, on the use and treatment of the data obtained. In addition, they signed informed consent prior to conducting the interview.

In compliance with current legislation, data confidentiality was ensured through encryption and storage in a file. Participants' personal data were encrypted to preserve their privacy and prevent their identification.

3. Findings

3.1. Participant characteristics

Interviews were performed with 18 professionals, from eight different MDTs and four high-complexity public hospitals. The mean age of the participants was 45.3 years (range 33–57), 72.2% (n = 13) were women, and on average they had over six years' experience on MDTs with an APN.

Fifty percent of the participating professionals were doctors with oncological specialties, 33.3% were doctors with non-oncological specialties and 16.6% were support care professionals. Table 2 shows the distribution of the professionals.

In addition, 11 patients were interviewed; the mean age of the patients was 55,9 years (range 32–70), 54,6% (n = 11) were men, 45.4% of patients had a diagnosis of advanced disease. Their sociodemographic characteristics are shown in Table 3.

3.2. Thematic findings

In the interpretive phenomenological analysis, the main themes that

Table 2
Multidisciplinary team (MDT) participants (N = 18).

ID	Gender	Speciality	Pathology	Years experience with APN/MDT
HCP_1	Female	Plastic surgery	Breast	13
HCP_2	Male	Plastic surgery	Head and neck	15
HCP_3	Female	Gynecology	Breast	20
HCP_4	Female	Radiation Oncology	Breast	11
HCP_5	Male	Clinical psycho-oncology	Others	21
HCP_6	Female	Medical oncology	Breast	16
HCP_7	Female	Radiation Oncology	Head and neck	15
HCP_8	Female	Medical oncology	Colorectal	7
HCP_9	Male	Medical oncology	Colorectal	7
HCP_10	Female	Clinical nutrition	Others	16
HCP_11	Male	Medical oncology	Lung	15
HCP_12	Female	Social work	Others	15
HCP_13	Female	Clinical hematology	Bone marrow transplant	14
HCP_14	Female	Pneumology	Lung	15
HCP_15	Male	Plastic surgery	Head and neck	8
HCP_16	Female	Neurology	Central nervous system	10
HCP_17	Female	Clinical hematology	Lymphoma/ myeloma	8
HCP_18	Female	Medical oncology	Gynecological tumors	12

Table 3
Patients' demographic characteristics (N = 11).

ID	Gender	Diagnosis	Educational level	Civil Status	Children	Employment
Pt_1	Male	Lung	Primary school	Married	Yes	Disability
Pt_2	Female	Colorectal	Primary school	Widowed	Yes	Retired
Pt_3	Female	Colorectal	Primary school	Married	No	Temporary Disability
Pt_4	Female	Colorectal	Primary school	Married	Yes	Temporary Disability
Pt_6	Female	Colorectal	Primary school	Married	Yes	Retired
Pt_7	Male	Lung	Primary school	Married	Yes	Retired
Pt_8	Female	Breast	University	Married	Yes	Temporary Disability
Pt_9	Male	Colorectal	Secundary school	Single	No	Temporary Disability
Pt_10	Male	Colorectal	University	Single	No	Working
Pt_12	Male	Hodgkin's lymphoma	University	Married	Yes	Working
Pt_13	Male	Hodgkin's lymphoma	Secundary school	Married	Yes	Working

emerged were: APN role and competencies, Benefits provided by the APN, and Relevant aspects of nursing care (Table 4).

3.2.1. Theme 1: APN role and competencies

Professional and patient participants reported roles and competencies for the APNs were; direct clinical practice, coordination, consulting, counseling and education, research, ethical decision-making and patient advocacy, leadership, and difficulties in role development.

3.2.1.1. Direct clinical practice. Professionals described nurses carrying out a holistic assessment of the patients and identifying their needs. Participant HCP_14 stated: "*APNs have the ability to detect things … beyond the purely medical, but rather social, economic and emotional problems*". In addition, both professionals and patients reported that APNs provided emotional support: "*We always say that nurses are the first emotional resource for the patient and the family*" (HCP_12); "*… that they give you this* support *… is very important*" (Pt_7). Accompaniment was one of the functions considered essential in nursing care: "*Apart from the emotional comfort for the patient, it is essential to feel accompanied by the APN*" (HCP_13); "*I am going through this process and with all this … I feel valued, and very grateful*" (Pt_9). Regarding the nurse's attention to patient needs, one patient affirmed, "*She was there for everything I needed*" (Pt_13).

Professionals and patients stated that the APN provided complex, specialized care: "*It was her [the APN] who told me … it looks like the wound is infected … we have to treat it with antibiotics and see how it goes …*" (Pt_08). This was also the case for managing the symptoms of the disease and the toxicity of the treatments: "*The nurse does the monitoring and control … she is also specialized in the management and follow-up of the toxicity of the treatment*" (HCP_09); "*During chemotherapy visits … she was the one who asked me more about what symptoms I had*" (Pt_06).

Moreover, the APN also oversees the continuum of care and the early detection of complications. Participant HCP_12 commented, "*The APN will answer the phone and decide if it's serious or not … if the patient should come to the hospital,*" and participant HCP_13 added, "*The APN's anticipation of the difficulties that may arise is essential.*"

3.2.1.2. Coordination. The professionals stated that the APN's functions included coordination, control, and follow-up of the patient's care process: "*The nurse is very vigilant that everything follows its course … she also coordinates us … it is as if there were a timeline, and everything must happen at the right moment*" (HCP_11); "*[She] ensures that the entire process planned for the patient is completed within the set times*" (HCP_17).

Depending on the patients' needs, the APN makes referrals to other professionals or levels of care: "*They are the ones in charge of keeping track of patients' needs, of how visits are managed with other professionals*" (HCP_12); "*The APN serves as a link to connect two specialties*" (HCP_2); "*They coordinate the response, decide whether to send the patient to an emergency department …*" (HCP_10).

3.2.1.3. Consulting. The professionals described the APN as the professional of reference for the patient, the members of the MDT, and other health professionals: "*The radiologists already know her, that is, they sometimes call the APN directly … because she is the MDT's focal point for other specialists, for the team, and also for the patients*" (HCP_17); "*Because they also know [the APNs], you know? In other words, they put a face on them … so, this personal relationship …*" (HCP_7); "*The patient sees many professionals, but the APN is always the same*" (HCP_14). In the same line, the patients described this role and its importance for their consultations. Participant Pt_12 stated, "*This is who I should call if I have any questions … and you know that this person knows you*" while participant Pt_08 stated, "*You have a person that at any given time you can consult if something worries you or you need to talk … it's very important.*"

3.2.1.4. Counseling and education. The professionals considered that APNs reinforced the information provided by the doctors regarding the disease or the treatment and made it understandable to patients. Participant PR08 expressed this as follows: "*From the moment when the patient is first received, the nurse does the job of adapting the information so the patient understands, that they are situated in relation to the disease they have, and what treatment they will receive.*" The patients echoed this idea: "*Later … with the nurse, during the visit she explained to me how everything would go …*" (Pt_12).

According to the professionals, one of the main functions of the APN is to educate the patient and family: "*I think that one of the APN's main interventions is to provide the patient with health education about the process they are going through … warning symptoms, care, the catheter, how to deal with mucositis …*" (HCP_13). The APN also provides guidance and advice: "*The APN guides the patient, directs them regardless of whether the problem is medical or non-medical.*" (HCP_06).

The patients also described this intervention: "*The APN informed me about the most common symptoms related to chemotherapy, especially the issue of fever, I remember well that she underlined that for me*" (Pt_13). Recognizing that it was the APN who advised them and guided them during the disease process, participant Pt_12 said, "*It was very clear to me that this was the person who explained things to me … and you are in unknown territory, but you have a guide who knows it.*"

3.2.1.5. Research. The professionals reported that nurses participated in clinical trials but conducted little research of their own, and it was necessary to promote this aspect: "*I think that nursing research should be greatly promoted … there is potential to do things …*" (HCP_8); "*… try in the projects that the APNs take part in their own nursing research … the research must converge at the clinical and scientific level*" (HCP_9).

3.2.1.6. Ethical decision-making and patient advocacy. From the perspective of professional ethics, MDT members considered that APNs maintained a high level of professional involvement and were committed to their responsibilities as caregivers.

Participant Pt_6 commented: "*When I entered, I spoke with the nurse and afterwards, days later, she expressed concern about how I was doing.*" They also described the role of the APN as a mediator: "*The ability to*

Table 4
Map of themes, subthemes, and emerging codes.

Themes	Subthemes	Codes
Advanced Practice Nursing (APN) role and competencies	Direct clinical practice	Holistic patient evaluation
		Detection of needs
		Emotional support
		Accompaniment to the patient
		Attending to needs
		Specialized complex care
		Control and management of symptoms and toxicity
		Provision of care continuity
		Early detection of complications
	Coordination	Control and monitoring of the patient process
		Referral to other professionals and existing resources
	Consulting	Reference professional
		Response to and resolution of patient queries
		Response to professional and patient inquiries
		Get to know the patient in depth
	Counseling and education	Reinforces the information
		Helps patient adjust to the disease process
		Gives recommendations for managing side effects and treatments
		Ensures a better understanding of the treatment
		Guides patient through the care process
	Research	Participates in clinical trials
		Performs little of their own research
		Promotes nursing research
	Ethical decision-making and patient advocacy	Involvement
		Professional commitment
		Patient's voice
		Concern for the interests and needs of the patient
	Leadership	Autonomy in decision making
		Knowledge, expertise, and authority
		Professionals trust APN
		Equal member of the team
		Committee participation
		APN position on the team
	Difficulties in APN role development	Ignorance of the role of the APN
		High workloads
		Non-role tasks
		Not having time for own functions
		Difficulties in training
		Feelings of frustration
		Lack of recognition
Benefits provided by the APN	Accessibility	First point of entry to the hospital
		Easy to locate
		Telephone assistance
	Perception of security and peace of mind	Better patient follow-up
		Resource to consult
		Stress reduction
		Feeling of control
		Nurse-patient relationship
	Quality of care	Satisfaction
		Added value
		Better adherence
		Error reduction
		Reduction of complications in patients
		Quality of life
		Experience of the disease process
	Linkage and multidisciplinary teamwork	Point of union between the patient, professionals and hospital
		Facilitates communication between professionals
		Integration
		Reduces workloads
		Facilitates processes
		Complements the team
Relevant aspects of nursing care	Human	Humanizes care
		Empathy
		Kindness
		Bond with the patient
	Expert care	Specialized care knowledge
		Experience in care
	Proximity	Relationship of trust
		Linkage with patient and family
	APN capacity	Resolution of complex problems
		Communication and assertive skills
		Support
		Management
		Containment
		Resolution
		Versatility
		Professionalism
	Recognition	Key role
		Fundamental
		Indispensable

mediate is appreciated … in a conflict that doctors can sometimes have with the patient" (HCP_11).

The professionals reported that the APNs acted as the patient's advocates, giving them voice in decision-making and taking responsibility for them: "*The APNs care a lot about the patient … the biggest dispute I've ever had is the excessive zeal of the APN for the patient and the family member …*" (HCP_5); "*They're like the voice of the patient … it's like having the voice of the patient and the family there with the rest of the professionals*" (HCP_10).

3.2.1.7. Leadership. The professionals recognized that the nurses had autonomy in decision-making, which was justified by their expert knowledge of the disease and care process, generating trust among members of the MDT. One participants stated: "*The advanced knowledge that APNs have allows them to make decisions without the need to consult the doctor at all times, and you have the confidence that [the issue] will be resolved, for example, toxicity in a patient*" (HCP_9); "*It is important that the APNs maintain their trust and their authority with the rest of the team*" (HCP_10); "*They know the entire disease process very well; it allows them to be autonomous in decision-making …, for example, referring patients to the emergency room …*" (HCP_14).

The medical professionals stated that the APN had an established position within the teams, professional respect, certain functions, and were one more member of the team. Participant HCP_16 stated: "*In the multidisciplinary team the hierarchy is diluted, and we're all equal, the nurse has a role at the same level,*" while participant HCP_6 reported: "*She presents the cases on the tumor board … in complex cases such as a patient with social needs, or one who is very shocked, the nurse knows them, and her opinion is important.*" Professionals agreed that they did not feel that the APN was encroaching on their role.

3.2.1.8. Difficulties in APN role development. Most of the professionals

interviewed stated that they had no formal knowledge of the role and competencies that APNs should have. Participant HCP_4 reported: "*Well … when a new professional joins the team, the functions of the APN are not precisely explained. Of course, we go about telling them, those of us who have been there the longest. Because there is no one who's described the specific functions of the APNs.*"

Professionals and patients felt that the APNs were generally overloaded with care duties, while also carrying out administrative tasks and others that were not their own. This had an impact on the performance of their activities and functions. "*They are overloaded … perhaps we would need another nurse for the long-term control of the patients,*" stated one professional (HCP_18), while a patient recounted, "*Because she has to manage a lot of people and the phone kept ringing, constantly … every time I had an appointment with her, she couldn't handle everything*" (Pt_13).

Another difficulty the professionals described, in addition to the care overload, was that the APN did not have time within the working day for research: "*They carry out less research than they might like … they are with the patient full time and the healthcare demand is very high*" (HCP_14).

Furthermore, professionals saw a need for specialized training for APNs: "*It would be nice if there was specialized training like in other countries, right?*" (HCP_15); "*The APN requires training that may not be standardized*" (HCP_18). The APNs used medical training resources to learn about the pathology and treatments: "*They participate in the service sessions because it is a way to learn*" (HCP_17); "*The APN must be continuously trained given the evolution of the different treatments*" (HCP_15). Similarly, regarding drug prescriptions, the professionals thought that nurses were qualified to prescribe medication: "*I believe the APNs can perfectly adjust symptomatic treatments and yes, they make decisions*" (HCP_16).

Some professionals also stated that the difficulties APNs faced in developing their role could affect their job satisfaction: "*Much of their frustration can come from this lack of time, excessive work or difficulties in training*" (HCP_11).

Other professionals stated that the APNs had insufficient institutional, economic, and academic recognition for the competencies and responsibilities they had. One stated: "*They should find a way to dignify the APN role with the recognition of this figure*" (HCP11); "*The recognition of the APN is very important, the value it brings to the patient, the family and also to the team, as a key element*" (HCP12).

3.2.2. Theme 2: benefits provided by the APN

Regarding the APN's contributions, the following subcategories emerged from participant interviews: Accessibility, Feeling of security and peace of mind, Quality of care, and Linkage and multidisciplinary teamwork.

3.2.2.1. Accessibility. The professionals described the nurse as the first point of contact in the hospital, while patients found the nurses easy to locate, as they had a direct line to telephone assistance for resolving doubts, reporting problems, and managing symptoms. Patients considered that this function provided an added value: "*If I had any questions, I could call … at times that had a lot of added value. When there were doubts about the medication or a worsening condition, [the telephone assistance] is a way for the family to quickly get access*" (Pt_12).

3.2.2.2. Perception of security and peace of mind. Professionals and patients stated that the APN gave them a sense of security and peace of mind. Participant HCP_7 commented, "*I think that the benefit of having an APN is that the patient can feel safe; the direct* support *gives them a sense of security.*" In this line, the APN also ensures better patient follow-up, as HCP_16 commented, "*The APN will answer the phone and give advice to the patient, and really, it gives me huge peace of mind.*"

Some nursing interventions also conferred peace of mind: "*Communication with the patient, health education, information on the steps to follow, validation of the information provided by the physician or resolution of doubts make the patient calmer,*" stated participant HCP_13, conveying a sense of control. Patients described something similar: "*They knew how to convey to me that the situation was under control … the APN was able to anticipate problems*" (Pt_7); "*The relationship I have had with the nurse is one of the things that gave me more peace of mind*" (Pt_10).

3.2.2.3. Quality of care. The professionals considered that the APN had a positive impact on the satisfaction of professionals and patients. "*The APN has a big impact on efficacy and … on satisfaction, right? Of the patient and of the families, and I believe of the entire medical team … it's clear*" (HCP_8), and this represented a win for the patient: "*It is an added value that you offer to the patient*" (HCP_1); "*I think the fundamental thing … well, it is the extra mile that they give to care*" (HCP_8).

Regarding improved outcomes, professionals considered that the APN favored better patient adherence to treatment, ensured continuity of care, and reduced medication errors. Participant HCP_13 expressed: "*Fewer medication errors, non-adherence to treatment, early detection of complications. The APN reinforces adherence to treatment and facilitates compliance with adequate timing, so that patients have the chance to be cured.*" Participant HCP_7 stated that: "*They are very hard treatments … there are moments that the patient would throw in the towel, and … I think the presence of the APN motivates them and* supports *them so they can continue.*"

Another aspect that emerged was a perception of decreased clinical complications in patients due to the APN's role in early detection and intervention. Participants stated: "*With the APN, the patients are better managed, the postoperative period works better with the surgical care*" (HCP_15); "*The problems are less serious when the patient gets worse … they quickly contact the APN … avoiding a visit to the emergency room, an admission, and the complications that this entails*" (HCP_16). In this line and in relation to the management of toxicity, one patient said, "*As soon as I had problems … with the chemotherapy, she told me how I could do it … that I had to rinse … everything. She helped me a lot*" (Pt_8).

Aspects such as well-being or quality of life were also associated with APN care: "*One of the benefits derived from the APN intervention, from her actions, is the patient's well-being and quality of life*" (HCP_11).

For their part, the patients expressed having had a good experience of the disease process from the diagnosis to the end of the treatment and were satisfied with the care received from the APN, whom they considered efficient, and from the larger team: "*As far as care is concerned, it is excellent … it has been perfect."* (Pt_12)*; "At all times they are very attentive … I am very happy*" (Pt_3).

3.2.2.4. Linkage and multidisciplinary teamwork. The professionals and the patients agreed that the APN figure served as a link between the patients, the hospital and the other professionals: "*It is the only link, this or the switchboard, and that's is very cold … right? It's much better … of course, to have someone you know and who has a name*" (Pt13); "*They're also like the link to the hospital, right?*" (HCP08); "*The APNs serve as a link between us, right? And then they serve as a link with different* support *specialists*" (HCP_4).

Another contribution of the APN figure was the facilitation of communication between professionals. Participant PR08 reported: "*They are also very important at the level of communication, sometimes between professionals, and they allow us to coordinate better.*" Likewise, they contribute to the organization and the processes: "*APNs ensure that the entire process planned for the patient is completed … without this help we would be lost*" (HCP_17); "*They make sure what we are doing is integrated*" (HCP_14).

Within the APN team, the professionals stated that the APN supported the professionals, complementing them and reducing the workloads of MDT members: "*The APN helps you, complements … allows you to organize the visits at the widest possible intervals*" (HCP_9); "*They allow tasks to be distributed, and everything is also more efficient*" (HCP_13).

3.2.3. Theme 3: relevant aspects of nursing care

One relevant aspect of nursing care was the human factor: "*[The APN] greatly humanizes clinical practice, they work at the level of the patient and family. They are more capable than the doctor of understanding patients' needs*" (HCP_11). In addition to the kindness of the nurses and the nurse-patient relationship that is established, participants mentioned aspects such as empathy and proximity: "*Patients establish a link with the APN*" (HCP_13); "*The APN for the patient, above all, is closeness, which is a very important thing … Patients will ask them questions, that maybe they don't dare ask us, you know?*" (HCP_8); "*Surely, many things about the APN can be highlighted, the close relationship … I could never have imagined it*" (Pt_10). "*Besides the care … I found the people I needed*" (Pt_3).

The professionals expressed the APN's capacity to provide care, mentioning aspects such as her expertise in care: "*Without a doubt, she is a nurse who knows the treatments very well, the associated toxicities, chemotherapy, and radiotherapy … The APN knows how to treat nausea and diarrhea better than I do … I mean … they are knowledgeable, they know a lot*" (HCP_17); "*APNs are nurses who already have a lot of experience … they have a maturity and a background that other types of nurses do not have*" (HCP_10). Other aspects reported were the communication, management, and containment skills that the APNs show. Participant HCP_12 stated: "*APNs have communication skills, eh? Assertiveness, empathy, support …*" Other participants listed additional attributes: "*Well, their knowledge, their attention, their professionalism, the management capacity, the containment capacity, and the resolution capacity*" (HCP_12); "*I would highlight about the APN … the knowledge, versatility, adaptability, obviously, I think this is linked to the nature of the nurse, I would add empathy*" (HCP_11).

Professionals recognized that the role of the APN was basic and essential to cancer care: "*The APN has a key role in patient care and treatment*" (HCP_13); "*[APNs] carry weight within the teams, and they have become indispensable*" (HCP_10); "*It is the fundamental piece, in managing everything involved in the functioning of the patient*" (HCP_8).

4. Discussion

Regarding the lived experience of cancer patients and multidisciplinary professionals in relation to the care provided by APNs, the participants widely agreed on the key interventions performed, as well as the knowledge, skills and specific attributes held by the APNs. In concordance with other studies, the APN responds directly or indirectly to the needs of the patient by coordinating and monitoring the care process, making referrals to other professionals, managing the toxicity of treatments and symptoms, dispensing accurate information on the disease process, counseling, and educating patients on dealing with side effects (Cook et al., 2017, 2019; Kerr et al., 2021; Serena et al., 2018).

Our results underline that in addition to encompassing the biological, psychological, social, and existential spheres of holistic patient care, as described by van Dusseldorp et al. (2019), the APN role is fundamental for supporting the patient and family throughout the disease process. Accompaniment, together with emotional support and support in coping, is essential, helping patients and their families to better adapt to the disease process and have a better care experience.

Moreover, this accompaniment and support to the patient during the provision of care strengthens the therapeutic relationship created between the patient and the APN. How this relationship is established is a relevant aspect of nursing care: the proximity perceived by patients and professionals (Cook et al., 2017; Serena et al., 2018), the reported experience of care as human and empathic, and the trust that is generated all make it easier for the patient to go to the APN to share problems or doubts, as well as to feel heard and cared for in their needs (Cook et al., 2017; Stahlke et al., 2017).

Within the MDTs, the role of the APN was perceived as crucial, facilitating the care process by coordinating the different stages of care, in line with Cook's review (2017). This function is carried out according to patients' needs and involves referrals to other professionals and management of different healthcare resources, favoring the efficiency of processes and care provision. In contrast, Cook et al. (2019) found that not all APNs carried out this coordination role, but most professionals believed that the APN should be involved in the different stages of the process, as in our study.

Another notable finding of the study was that the APN was the most knowledgeable professional with regard to the patient and their care process, intervening throughout the entire course of the patient's disease, whereas professionals did so in a fragmented manner. This made the APN a reference figure both for other professionals (Cook et al., 2017) and for patients (van Dusseldorp et al., 2019). For the patients especially, having this figure was essential and highly valued.

From the perspective of the professionals, the APN was highly involved and committed to patient care. Moreover, they were seen as assuming the role of defenders of the patients' interests (Kerr et al., 2021; van Dusseldorp et al., 2019), giving voice to the patient during interprofessional exchanges and so influencing decision-making.

The APN's nursing care also stood out for the nurse's demonstrated capacity, expertise, and knowledge (Cook et al., 2017), which were recognized by both professionals and patients. Notably, professionals recognized the APN's specialized, extensive knowledge, reflected by their degree of autonomy in making complex decisions with patients and managing pharmacological treatments. This recognition was closely linked to the fact that physicians trusted APNs for their proven ability to provide care. Some doctors commented that in practice, the nurses indicated certain medications or adjusted their doses based on the symptoms; however, legally they were not allowed to make these decisions, although the doctors saw it as viable with more solid and specialized training. Therefore, the lack of regulation for these roles determines to some extent the APN's scope of competencies, as in other settings.

Professionals taking part in our study considered that the APN was an equal member of the multidisciplinary team, unlike the participants in the study by Hurlock-Chorostecki et al. (2016). At no time did the professionals mention any perception that their role was being usurped by the APN. Other studies, such as Cook et al.'s (2019), assessed the presence of an overlap in functions, but the professionals in our study saw the APN as having a complementary role (Serena et al., 2018).

The high care burdens reported (Serena et al., 2018), especially when it comes to performing administrative tasks (Cook et al., 2019), can make it difficult for APNs to perform other relevant advanced practice functions, for example research or other specific interventions considered necessary in cancer care. This challenge is related to how institutions implement and define these jobs (Casey et al., 2019).

One of the difficulties in the development and implementation of advanced practice nursing is the lack of clarity around the specific competencies, which leads to confusion about the role that APNs should play (Casey et al., 2019). In our study, some professionals stated that they were unaware of the specific functions of the APN. On the other hand, MDT professionals participating in Serena et al.'s (2018) study highlighted that the role of lung oncology APNs and the scope of practice were clearly defined.

The lack of clarity on the role and the job description as well as the lack of recognition of APN practice roles at an institutional, economic, and professional level (Jean et al., 2019; Schirle et al., 2020) are not negligible aspects. Indeed, this ambiguity could have consequences for APNs' job satisfaction (Geese et al., 2022).

Despite the identification of competencies performed by APNs that are typical of advanced practice (Hamric, 2014), there is a perception that these roles are not developed to their full potential. Our findings show a broad scope of APN competencies, especially in direct clinical practice, coordination, consultancy and counseling, and education.

In our study, both professionals and patients described the benefits provided by the APNs as a reference figure for the patient. The provision of telephone assistance facilitates access to the system and provides a rapid response to patients' problems and needs. At the same time, the

APN is also accessible to the different professionals involved in the patient care process. The APN's accessibility is key, ensuring continuity of care, early detection of complications, and a prompt response to resolve and manage problems (Serena et al., 2018). This attribute is very important both to patients and MDT professionals, conferring a sense of security and peace of mind (Cook et al., 2017).

Within the MDT, both patients and professionals see the APN as the nexus, facilitating communication with and among professionals; this vision is similar to other studies (Cook et al., 2019; Hurlock-Chorostecki et al., 2016). In addition, the APN complements the work of other professionals, with a scope of practice that encompasses areas not covered by other professionals. The APN reduces the team's workload and facilitates their tasks and multidisciplinary work (Alotaibi and Al Anizi, 2020; Kerr et al., 2021; Serena et al., 2018). However, what could be an asset for the team as a whole could potentially have a negative impact on the development of APN functions. In this sense, it may be necessary to assess whether all the functions carried out by the APN should correspond to them, and to evaluate the impact of these tasks on the care overload perceived by patients and professionals alike.

Keer et al.'s (2021) review established the role of APN as an essential, valuable, and cost-effective member of the MDT, from the point of view of patients and team members, reporting beneficial outcomes associated with their contribution in the provision of care. Along these lines, the professionals considered that nurses provided high-quality care, helping to improve safety, providing efficient and specialized care, and improving monitoring of the patient and the care process (Cook et al., 2019). For patients, the APN has a positive impact on well-being (van Dusseldorp et al., 2019), and in our study the patients felt satisfied with the care received, describing the experience of the disease process as good. Therefore, the contribution of this advanced practice role to the overall patient experience and its impacts on the quality of the care process should be considered (Alotaibi and Al Anizi, 2020; Stahlke et al., 2017).

Our results also show that the MDT professionals recognized the APN as an asset due to their professionalism and capacity for complex problem-solving, management, containment, adaptation, and versatility (Kerr et al., 2021). The acceptance of the APN role among MDT members is a fact: they consider it essential and fully recognize the role of advanced practice. Good communication, the maturity of the teams, and the way the APNs have been positioned may have facilitated their implementation.

All in all, the perception of the APN's role is very positive due to their contributions in the care provided, so institutions and managers should be attentive to strengthening this figure, promoting and facilitating the development of competencies in order to optimize the performance of these roles.

4.1. Strengths and limitations of the work

The pandemic context meant that interviews with professionals had to be carried out by videoconference, which facilitated participation. This choice was supported by the fact that the professionals were used to this modality, so it should not be considered a limitation (Jackson et al., 2008). With the patients, we waited for the incidence of COVID-19 to decrease in order to be able to carry out the interviews under the conditions required by the study. The sample was conditioned by the fact that the interviews had to coincide with a patient's appointment at the hospital, and despite the low variability of patients in relation to the pathology, their experiences were similar and consistent throughout the sample.

The interviews allowed an in-depth exploration of individuals' perceptions and experiences, and data saturation was achieved. Returning the transcribed interviews to the participants and the involvement of all the authors in the analysis strengthened the reliability of the study with respect to the credibility, reliability, and transferability of the results to other contexts.

The study was carried out in a specific context, with some possible heterogeneity in the implementation of the different professional roles, as advanced practice in our setting is not regulated.

4.2. Relevance to clinical practice

The inclusion of the APN on the multidisciplinary team will make it possible to specifically define their competencies in oncology and, in turn, to implement training and management strategies to consolidate this figure in specialized centers. More research is needed to understand the role played by the APN from other perspectives, as well as to clarify their roles and contributions. Moreover, research into the contexts where APNs practice and the difficulties associated with developing the role would facilitate its wider implementation.

5. Conclusion

The experience of the care provided by the APN is positive, and this figure is considered essential to cancer care, providing quality health care all along the patient pathway. Within the multidisciplinary teams, APNs are considered experts in their care area—an equal member of the team, and they have an important role coordinating the patient's care process, serving as a point of reference for both patients and professionals. There is evidence that advanced practice nursing roles and functions are being performed in similar ways to other countries that also have not regulated these roles, although APN practice still falls short of their full scope of competencies. APNs exercise clinical leadership in terms of their ability to influence teams and make complex decisions autonomously, although this role is limited by the lack of regulation.

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CRediT authorship contribution statement

M. Antònia Serra-Barril: Conceptualization, Writing – original draft, Research, Investigation, Data curation, Formal analysis, Funding acquisition. **Tarsila Ferro-Garcia:** Conceptualization, Project administration, Supervision, Resources, Writing – review & editing. **Anna Falco-Pegueroles:** Conceptualization, Visualization, Writing – review & editing. **Pilar Delgado-Hito:** Conceptualization, Methodology, Writing – review & editing. **Marta Romero-Garcia:** Conceptualization, Writing – original draft, Investigation, Data curation, Formal analysis. **Llúcia Benito-Aracil:** Conceptualization, Writing – original draft, Investigation, Data curation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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5. DISCUSSIÓ CONJUNTA DELS ARTICICLES

Aquest estudi amb el propòsit d'identificar el nivell de desenvolupament de la pràctica avançada infermera en la cura del pacient oncològic a Catalunya, ens ha permès conèixer quina és la implantació i desenvolupament dels rols d'IPA des de diferents perspectives i experiències: la dels pacients, els professionals que treballen conjuntament amb les IPA dins equips multidisciplinaris i les pròpies infermeres de pràctica avançada.

Els resultats de cada subestudi s'han discutit en els diferents articles publicats. En aquest apartat es realitza un resum de les principals troballes i s'analitzen i discuteixen les seves limitacions i implicacions per la pràctica.

5.1. Grau de desenvolupament de les competències professionals de les infermeres de pràctica avançada en càncer i els elements clau que el dificulten

L'estudi ha volgut investigar el consens en la definició dels dominis competencials i el desenvolupament de les competències de les IPA en oncologia, tenint com a punt de partida les competències definides per societats científiques oncològiques (ONS, 2019; CANO/ACIO, 2001; EONS, 2018) i el model de Hamric (2019). A més, es va explorar les dificultats en la implementació d' aquelles competències que no es desenvolupaven.

En la definició dels dominis competencials es va obtenir un consens ampli en ambdues rondes, per la qual cosa els participants van compartir la definició dels dominis que agrupaven les competències.

En relació amb el nivell de desenvolupament de competències per part de les infermeres de pràctica avançada oncològiques, en la primera ronda, només 38 competències de les 90 (42.20%), menys de la meitat, van assolir el nivell de consens determinat prèviament. Mentre que en la segona ronda el consens en el desenvolupament de competències per part de les IPA oncològiques va baixar a 34 competències (37.77%). Malgrat el nivell de desenvolupament de competències reportat, a la pregunta de si aquestes competències s' havien de desenvolupar, el nivell de consens va ser ampli, concloent que totes les competències incloses en el qüestionari s' havien de desenvolupar en la pràctica infermera.

Els resultats d' aquest estudi ens mostren en general una implementació limitada de la pràctica avançada de les infermeres oncològiques. Si bé en l'estudi es reflecteix un desenvolupament de les competències pròpies de les IPA, és evident que en relació a l'expansió del rol de l'IPA, aquest no es desenvolupa en tota la seva amplitud, en línia amb altres estudis en el context espanyol (Manzanares et al., 2021; Sevilla Guerra et al., 2018;Sevilla Guerra et al., 2021). Cal considerar que en el context català, on la pràctica avançada no està regulada, la implementació inicial d'aquests rols de pràctica avançada tindria una orientació o un enfoc més dirigit a la pràctica clínica directa, que a un desenvolupament en tot el seu abast competencial i aquests rols, molt possiblement, s'haurien creat en funció de les necessitats dels diferents entorns (Sevilla Guerra et al., 2021).

Les infermeres de practica avançada que van participar en l'estudi estaven exercint en llocs de pràctica avançada, el desenvolupament del rol o de les funcions, molt possiblement estan influenciades per l'àmbit i entorn d'actuació (Dowling et al., 2013, Jean et al., 2019; Jokiniemi et al., 2012).

Dominis com pràctica clínica directa, consultoria i col·laboració i relació interprofessional van assolir un consens elevat respecte al desenvolupament de competències, fet que es pot associar a que les infermeres de pràctica avançada treballen en equips multidisciplinaris, coordinen processos assistencials, proporcionen atenció directa als pacients i famílies, essent referents tant per al pacient i família, com d'altres professionals. També desenvolupen una pràctica autònoma demostrant un alt grau de coneixement del pacient, amb capacitat per anticipar-se, gestionar i donar resposta als problemes de salut dels pacients. Les competències que no van obtenir el consens en aquests dominis van estar relacionades amb el monitoratge i avaluació de resultats i amb la realització d'intervencions específiques com el *coaching, el mentoring* o assessorament i l'equilibri de les càrregues de treball.

Altres dominis competencials en els quals les competències no van assolir el nivell de consens van ser: la promoció de la salut, la pràctica basada en l'evidència, la recerca o la millora de la qualitat. Així com competències específiques que pertanyien a altres dominis competencials com el lideratge o la presa de decisions ètiques, tampoc van assolir el grau de consens definit:

l'avaluació de resultats, la recerca, la participació en polítiques de salut, les competències relacionades amb la comunitat o la població, la difusió de resultats i la revisió de l' evidència.

Resultats similars però no equiparables per diferències en el disseny dels estudis s'han reportat en els estudis de Gutiérrez Martí & Ferrús Estopà, 2019 i Sevilla Guerra et al., 2018b, en el quals es va identificar que la pràctica avançada es centrava en els dominis de planificació de l'atenció experta de cures i atenció Integral, mentre que en els dominis de recerca i pràctica basada en l'evidència i lideratge professional les infermeres superaven l'estàndard establert en l'estudi en un percentatge més baix.

L'estudi de Goemaes (2019) va mostrar que les infermeres executaven activitats majoritàriament en el domini del pacient i família, però també el de l'equip i en el de l'organització sanitària. Pel que fa al rol, les IPA dedicaven més temps a realitzar funcions d'infermera clínica experta, tanmateix les funcions que menys temps van dedicar van ser les de lideratge, mentre que en la de presa de decisions ètiques no van executar activitats.

Els resultats obtinguts dels estudis de Jokiniemi (2018) (2021b), difereixen del nostre, en el temps dedicat per infermeria al pacient o el contacte directe, mentre que en el nostre estudi la pràctica clínica directa és un dels àmbits de competències més desenvolupat.

És difícil comparar de manera específica la implementació de la pràctica avançada a nivell competencial en diferents entorns o fins i tot països, ja que les eines utilitzades per a la seva avaluació són diferents (Jokieniemi et al., 2021b, Gardner et al., 2016). En l'estudi de competències específiques de pràctica avançada com d'eines o instruments per identificar la pràctica avançada, s'observa que la definició dels dominis o esferes competencials d' aquestes eines són diferents encara que molt possiblement la definició de competències sigui similar.

Per una altra banda, la necessitat de formació específica va ser l'aspecte més reportat relacionat amb les competències que no es desenvolupaven, i es va associar a tots els dominis competencials. En l'estudi de Jean et al., (2019) realitzat al Canadà i Catalunya es va detectar una manca de formació acadèmica

adaptada, a més, la formació continuada i el desenvolupament professional no eren adequats i eren difícils d'integrar a la pràctica clínica.

En aquest mateix estudi (Jean et al., 2019) es va detectar la falta d'un marc legal i de visió del rol en l'entorn espanyol com una barrera en el desenvolupament i implementació de la pràctica avançada infermera, per la qual cosa una regulació basada en estàndards de formació i certificació permetria garantir el desenvolupament de la pràctica avançada de forma completa i uns resultats òptims de salut en els pacients segons conclouen Haele i Buckley (2015). D'altra banda, com a estratègia en la implementació d'IPA, és necessari la implicació i el suport dels gerents i administradors de les organitzacións per poder desenvolupar competències avançades i optimitzar la pràctica en tot el seu potencial , així com disposar de plans d'estudis per capacitar i apoderar l'IPA, afirmacions que estarien en consonància amb diferents estudis (Dowling 2013; Goamaes, 2019; Van Hecke, 2019).

A banda de la formació, es van identificar aspectes com no disposar de temps, espai i recursos que dificultaven el desenvolupament de competències relacionades amb la recerca. A més, les infermeres van reportar la necessitat de disposar de temps associat al desenvolupament de competències lligades a la pràctica clínica directa, a la promoció de la salut, a l'educació i docència, així com competències de la pràctica basada en l'evidència, el que suggereix que les càrregues de treball els impedirien el desenvolupament de competències pròpies de la pràctica avançada, resultats que coincideixen amb Goemes et al. (2019), aquesta informació s'ha de tenir en compte i pot ser útil als gestors en la implementació de rols de pràctica avançada.

La generació de coneixement i pràctica basada en l' evidència, la manca de coordinació amb les universitats, el nivell formatiu per part de les infermeres o la necessitat d'intercanvi de coneixement amb altres IPA oncològiques van ser altres aspectes reportats. Ryder (2019), en el seu estudi, les IPA s'identificaven amb una presa de decisions autònoma i en l'exercici de lideratge per millorar la prestació de cures, però alhora es va detectar la necessitat de suport per part de les infermeres acadèmiques en l'àmbit de la recerca.

D'altra banda, es va detectar que la manca d' eines per poder analitzar els resultats de les intervencions infermeres o l' avaluació contínua de la pràctica

infermera estaven lligades al desenvolupament de competències relacionades amb la qualitat de les cures o la recerca. Per la qual cosa, es fa evident la necessitat d' implementar eines d'avaluació de resultats o de la pràctica per conèixer l' impacte de les cures les IPA en els pacients i en el sistema de salut.

Paral·lelament, el consens en el desenvolupament de lideratge clínic en la presa de decisions autònomes per al pacient és alt, però s'evidencia una dificultat en implementar el lideratge dins dels equips, institucions i del sistema de salut lligat a la falta d'apoderament per part de les infermeres. Així com el suport de les pròpies institucions i dels gestors en la implementació dels rols, en el desenvolupament professional i el reconeixement del valor de les IPA. Això es tradueix també en una visió restringida de les IPA oncològiques a l' àmbit hospitalari i a una manca de programes per a la comunitat on s' incloguin IPA oncològiques, així com, una dificultat a establir circuits i la comunicació entre diferents nivells assistencials. Aquestes troballes estan en consonància amb Heinen (2019), en la necessitat del desenvolupament del lideratge tant clínic com professional i del sistema per part de les IPA, per influir a nivell estratègic i compartir una visió organitzacional de la millora de la qualitat.

5.2. Experiència de les IPA en el desenvolupament del rol i dels factors que l'afavoreixen o el dificulten

Els resultats de l'estudi que van emergir del discurs de les IPA, des de la seva experiència en la implementació i desenvolupament del seu rol en l'atenció al pacient oncològic, mostren que les participants van coincidir en la identificació dels atributs en relació al rol desenvolupat: infermeres expertes, resolutives, amb coneixement específic i expert avançat, així com també, amb capacitat de prendre decisions complexes i a la vegada amb un alt grau de responsabilitat. Aquestes característiques o atributs serien similars als desenvolupats per infermeres de practica avançada en altres àmbits en concordança amb altres estudis (Cook et al.; 2021;Kobleder et al., 2017; van Kraaij et al., 2020) i també estarien en consonància als definits pel Consell Internacional d'Infermeres (ICN, 2020), aquestes troballes són importants per que ens permeten entendre com s'estan desenvolupant aquests rols en un entorn on no està regulada la pràctica avançada.

Un element fonamental en el desenvolupament del rol d'IPA és la capacitat de lideratge clínic i professional, segons la revisió de Wong et al. (2013), que es relaciona amb la qualitat de l'assistència i uns millors resultats en els pacients, en els professionals i les organitzacions d'acord amb Lamb et al. (2018).En el nostre estudi, el lideratge es va relacionar amb l'experiència professional i un coneixement clínic expert, en aquesta línia, van Kraaij et al. (2020) va considerar el coneixement clínic avançat com un factor important i de suport al tenir les IPA més responsabilitats. En l'estudi l'expertesa també es va relacionar amb l'autonomia en la presa de decisions i en com exercien el lideratge tant clínic com professional.

Altrament, en el desenvolupament del rol, un factor important que emergeix, es el posicionament de les IPA dins els equips, la defensa del rol de pràctica avançada, el demostrar la seva capacitat i guanyar-se la confiança de la resta de professionals, així com el seu reconeixement i l'autonomia en la presa de decisions complexes. Aspectes determinants en el desenvolupament del rol en consonància amb altres estudis (van Kraaij et al., 2020; Ryder et al., 2019), pel que la capacitat de lideratge és clau en el desenvolupament del rol i en el posicionament de les IPA.

En el desenvolupament del rol de pràctica avançada les IPA van identificar activitats i intervencions claus relacionades amb la pràctica clínica, la recerca, l'educació, coordinació del procés assistencial, consultoria o la col·laboració interprofessional. La percepció per part de les IPA del rol desenvolupant és coherent amb altres estudis com la revisió de Jokiniemi et al. (2012) i amb el rol de la infermeria de pràctica avançada definit pel ICN (2020), així com també estaria en consonància amb rols reconeguts d'IPA en càncer en altres països i estudis (Cook et al., 2021; Kerr et al., 2021; Westman et al., 2019).Una altra troballa destacable és el paper de referència de la IPA tant pels pacients com professionals i el valor que aporta. En relació als pacients és fonamental com s'estableix la relació terapèutica, aspectes com la confiança i l'establiment d'un vincle, essent una guia pels pacients al llarg de tot el procés assistencial. Pels professionals, aquesta referència és percebuda en el sentit de que la IPA és la persona que controla i coordina el procés assistencial del pacient i les seves necessitats, donant resposta a situacions complexes, aspectes que

determinarien el reconeixement del paper fonamental de la IPA i el seu lideratge, tant dins els equips com per la seva aportació en els pacients.

Així mateix, les participants van coincidir que el rol de l'IPA aportava qualitat en l'assistència fent-la més eficient i segura al facilitar l'accessibilitat dels pacients, la continuïtat assistencial, la cohesió de recursos o detectant precoçment complicacions entre altres, elements també reportats en els resultats d'altres estudis (Alesy et al., 2021; Alotabi, i Anzi, 2020; Schneider et al., 2020; Stewart et al., 2021).en els que s'evidencia la contribució positiva del rol de la IPA en l'assistència en el pacient amb càncer i en els equips multidisciplinaris.

L'actitud i el desig d'avançar de la IPA és van identificar com a facilitadors essencials en la implementació i desenvolupament del rol de pràctica avançada. Així com el disposar de formació avançada i protocols per la presa de decisions clíniques complexes aspectes també reportats en altres estudis (Fealy et al, 2018; van Kraaij et al.,2020).

Els aspectes identificats per les IPAs en el nostre estudi que podrien ser clau com a facilitadors serien el reconeixement i suport dels equips, com s'integren les IPA dins els equips i com s'estableixen les relacions, elements identificats en la literatura (Fealy et al., 2018; Rivera et al., 2023; Schirle et al., 2020). Mentre que de manera contrària, altres estudis han identificat resistències i interaccions negatives de les IPA per part dels metges, així com un solapament de funcions o poc suport d'altres professionals (Casey et al., 2019; Jean et al., 2019; van Kraaij et al., 2020), percepció no s'ha reportat per part de les IPA en el nostre estudi. Pel que caldria prendre en consideració la importància des de les organitzacions i dels gestors en preparar i liderar la gestió del canvi en el moment que s'implementen nous rols assistencials i realitzar-ne un seguiment (Harrison et al., 2021;Lowe et al., 2018; Solow & Perry, 2023)

A més, estar en contacte amb altres infermeres i l'establiment d'una xarxa per compartir coneixement i experiències serien també factors facilitadors en la línia d'altres estudis (Casey et al., 2019; Rivera et al., 2023; Wood et al., 2021).

Altrament, els participants van ser conscients de que els rols de pràctica avançada no es desenvolupament en tot el seu potencial i que aquest podria ser diferent entre hospitals o fins i tot dins un mateix hospital, per exemple, en la visió

del paper de la IPA en la prescripció. La literatura ha evidenciat com els factors contextuals influeixen en el desenvolupament de la practica avançada, diferents estudis com el de Jean et al. (2019), Fealy et al. (2018) i Rivera et al. (2023) han identificat diferents barreres relacionades amb dificultats en la implementació i desenvolupament dels rols de pràctica avançada.

Tanmateix, cal plantejar a nivell del les institucions i els gestors com prenen consciència en el moment de la implantació i desenvolupament d'aquests rols d'IPA, ja que problemes a nivell organitzatiu com les càrregues de treball, l'organització de la jornada labora, a més d'un desconeixement del rol per part de professionals i dels propis gestors o la manca de suport per part d'aquests es van identificar com a barreres (Casey et al., 2019, van Kraaaij et al., 2020). Aquests elements han contribuït a reduir el temps que les IPA podrien dedicar a la recerca, a la formació o a desenvolupar funcions pròpies del rol d'IPA. De manera similar a les conclusions de Casey et al. (2019) i van Kraaij et al. (2020), aquests aspectes tindrien un impacte negatiu en la capacitat de lideratge de les IPA, l'optimització del rol, en l'avaluació dels resultats de la pràctica i en la qualitat de l'assistència.

Per una altra banda, la manca de definició i claredat del rol de l'IPA, així com dels llocs de treball, provocaria confusió i dificultat en el reconeixement del rol i les funcions de les IPA entre els diferents professionals sanitaris i fins i tot, per part de les pròpies IPA, amb una dificultat en determinar els límits o l'abast de la pràctica i amb conseqüències en el desenvolupament del rol (Fealy et al., 2018; Wood et al., 2021).

Una manca de definició i ambigüitat en el rol de la IPA s'ha percebut en altres estudis (Casey et al., 2019; Woo et al., 2019), en l'estudi les infermeres van relatar la necessitat de defensar el rol desenvolupat, les seves funcions i l'evitació de rols mèdics, el que tindria un impacte en com viuen el rol les IPA.

Les dificultats per avaluar les activitats o intervencions de les IPA i la seva contribució en els pacients estarien relacionades amb una manca de definició de sistemes d'avaluació per part de les institucions i una manca de recerca infermera, que són fonamentals per avaluar l'impacte de la implementació d'aquests rols i en el reconeixement de la contribució i el valor de la figura de la IPA en l'atenció sanitària.

En el nostre estudi, una altra barrera reportada per part de les participants va ser la dificultat en l'accés a una formació ampliada i continuada. Aquesta barrera limitaria la capacitat de les IPA per exercir la pràctica, el seu desenvolupament professional i el desenvolupament d'habilitats essencials com el lideratge, aspectes reportats en l'estudi de Fealy et al., 2018 i van Kraaij, et al., 2020.

Tanmateix, les restriccions institucionals i legals tindrien un impacte negatiu en el nivell d'autonomia de la pràctica avançada en concordança amb altres estudis (Fealy et al., 2018; Schirle et al., 2020; van Kraaij et al., 2020; Woo et al., 2019), pel que es fa necessari disposar d'un marc que defineixi l'abast de la pràctica i per que les infermeres no se sentin exposades en el moment en el que assumeixen més responsabilitats que una infermera generalista, en la línia de Geese et al.(2022) i Steinke et al.(2018).

Per tant, a nivell regulatori, en concordança amb diferents autors (Casey et al., 2018; Fealy et al., 2018), disposar d'un marc legal i d'un marc competencial definits, una formació reglada i un títol, constituirien un paraigües legal pel desenvolupament del rol, determinarien la formació i permetrien acreditar i certificar un títol.

Finalment, la vivència del rol desenvolupat per part de les IPA, ha tingut una vessant positiva ja que van manifestar sentir-se satisfetes de l'assistència prestada als pacients i de la confiança que sentien en si mateixes, factors positius relacionats amb la satisfacció laboral, aspectes coincidents amb diferents estudis (Bourdeanu, et al., 2020; Geese et al., 2022, Steinke et al., 2017). Al contrari, barreres identificades com la manca de reconeixement, no disposar d'un marc competencial, no poder desenvolupar les competències pròpies del rol, el fet d'haver de demostrar la seva capacitat i defensar el rol generava en les IPA, sentiments negatius com la frustració, el cansament, la insatisfacció o l'estrès, aspectes que es relacionen amb la insatisfacció laboral, en correspondència amb les troballes d'altres estudis: Geese et al. (2022), Steinke et al. (2017) i Woo et al. (2019), el que podria tenir un impacte en la permanència de les infermeres en els llocs de treball, en la motivació o en la qualitat de l'assistència

En definitiva, els gestors haurien de tenir en compte les barreres que s'ha reportat en l'estudi i que duen a entorns de pràctica poc favorables, així com establir estratègies per facilitar el desenvolupament del rol d'IPA.

5.3. Experiència viscuda pels pacients oncològics i pels professionals dels equips multidisciplinaris en relació a les cures proporcionades per les IPA.

Els resultats, obtinguts des de l'experiència viscuda per part dels pacients oncològics i dels professionals del equips multidisciplinaris en relació a les cures de les IPA, coincideixen en la identificació de les intervencions, el coneixement , capacitats i atributs específics del rol de pràctica avançada consistent amb l'estudi de Serena et al. (2018).

Les IPA donen resposta a les necessitats dels pacient realitzant la coordinació i seguiment del procés assistencial, derivació a altres professionals, maneig de la toxicitat dels tractaments i símptomes, dispensació d'informació, assessorament i educació en el maneig dels efectes secundaris en la mateixa línia que altres estudis (Cook et al., 2017; Cook et al., 2019; Kerr et al., 2021; Serena et al., 2018).

Tanmateix, les infermeres proporcionen una atenció holística, en consonància a l'estudi de van Dusseldorp et al., (2019), destacant el paper fonamental de la IPA en l'acompanyament del pacient i família al llarg del procés assistencial, proporcionant suport emocional i en l'afrontament de la malaltia, el que permetrà una millor adaptació del pacient i família i també una millor experiència.

L'acompanyament i suport en la dispensació de les cures per part de les IPA, enforteix la relació terapèutica. Com s'estableix aquesta relació és rellevant de les cures infermeres amb aspectes com la proximitat percebuda per part dels pacients i dels professionals similar al que han reportat altres estudis (Cook et al., 2017; Serena et al., 2018). Un altre aspecte és l'experiència d'una atenció humana i empàtica, així com la confiança que es genera entre pacient i l'IPA que són elements que faciliten que el pacient es dirigeixi a la IPA per consultar problemes o dubtes, i que el pacient se senti escoltat i atès en les seves necessitats (Cook et al., 2017; Stahlke et al., 2017).

Un altre aspecte clau, en aquest paper d'acompanyament però també de referència pels pacients i pels professionals, és el fet de que l'IPA es considerada com el professional de l'equip amb més coneixement del pacient i del seu procés

assistencial a l'intervenir al llarg de tot el procés mentre que els altres professionals ho fan de manera fragmentada.

També, cal considerar la identificació d'una alta implicació i compromís professional de la IPA en relació a les cures dels pacients, posicionant-les com a defensores dels interessos dels pacients, aspectes reportats per Kerr et al.(2021) i van Dusseldorp et al.(2018), també, considera-les com la veu del pacient i en aquest aspecte les IPA tenien capacitat d'influir en la presa de decisions.

Un altre aspecte rellevant en relació a les cures infermeres va ser la capacitat, l'expertesa i el coneixement especialitzat i ampliat demostrats per part de la IPA en consonància amb les afirmacions de Cook et al. (2017), i que tant els professionals com els pacients van reconèixer. Aquests aspectes es van reflectir en el grau d'autonomia de les IPA en la presa de decisions complexes o el maneig farmacològic, així com en el reconeixement i confiança dels metges en les IPA. Malgrat aquestes troballes, es fa evident la problemàtica en el maneig de la medicació des d'un punt de vista legal, tot i que, els metges veien viable aquest maneig amb una formació més especialitzada, més sòlida i acreditada. En conseqüència, la manca de regulació de les IPA determinaria l'abast del seu desenvolupament competencial com s'ha reflectit en altres estudis (Carney, 2016; Fealy et al., 2018; Heale i Buckley, 2015)

En relació al posicionament de la IPA dins els equips multidisciplinaris, els professionals van considerar que la IPA estava en el mateix nivell a diferència de l'estudi de Hurlock-Chrorostecki et al. (2016), verbalitzant que no hi havia hagut percepció d'usurpació o solapament de funcions en cap moment, a diferència d'altres estudis (Casey et al., 2019; Cook et al., 2019; Fealy et al., 2018), en aquest estudi el paper de l'IPA és vist com a complementar i seria similar a les troballes de l'estudi de Serena et al. (2018), el que facilitaria la implementació d'aquest rol.

Les càrregues assistencials elevades reportades també en altres estudis (Cook et al., Serena et al., 2018) dificultarien que l'IPA pogués dedicar-se a altres funcions rellevants com la recerca o la implementació d'intervencions específiques necessàries en l'atenció al pacient amb càncer, pel que el paper de

les institucions és clau en la definició i implementació d'aquests llocs de treball (Casey et al., 2019).

En l'estudi, alguns professionals dels equips van manifestar que desconeixien de manera específica les funcions de les IPAS a diferència de l'estudi de Serena et al.(2018) en el que els professionals de l'equip destacaren que el rol de l'IPA oncològica i els límits de l'abast de la pràctica estaven clarament definits.

Es conegut que en la implementació i desenvolupament dels rols de pràctica avançada, la manca de claredat en la definició del rol o bé dels llocs de treball, implicaria confusió sobre el paper que han de jugar les IPA (Casey et al., 2019; Fealy et al., 2018) comprometent el desenvolupament del rol. A més d'altres dificultats, com la manca de reconeixement de la IPA, a nivell institucional, econòmic i professional, elements que incideixen també en com les IPA desenvolupen el rol (Jean et al., 2019; Schirle et al., 2020), no essent aspectes menyspreables, ja que podrien tenir conseqüències en la satisfacció laboral de les IPA en consonància a l'estudi de Geese et al. (2022).

Malgrat la identificació de les funcions desenvolupades per les IPA equiparables a les de models de pràctica avançada definits (Arsalanian-Engoren, 2019), existeix la percepció que aquests rols no es desenvolupen en tota la seva amplitud competencial.

En l'estudi els participants van descriure els beneficis aportats per la IPA com a referent del pacient i professionals, facilitant l'accés al sistema, la continuïtat assistencial, la comunicació, la detecció precoç de problemes i una ràpida resposta en la gestió i resolució de problemes, resultats similars a Serena et al. (2018) aportant tranquil·litat i seguretat als pacients (Cook et al., 2017) i professionals de l'equip multidisciplinari.

Dins els equips la IPA es vista pels participants com el nexe d'unió, aquest aspecte és consistent amb els estudis de Cook et al., (2019) i Hurlock-Chrorostecki et al. (2016). Així com també és un suport, complementa la feina d'altres professionals, disminueix les càrregues de treball, facilita els processos i la feina de l'equip, aspectes també reportats en altres estudis (Alotaibi i Al Anizi, 2020; Kerr et al., 2021; Serena et al., 2018).

En conseqüència la IPA és considerada un membre essencial, valuós i rentable de l'equip per part dels professionals (Kerr et al., 2021) amb resultats positius associats a les cures dispensades. Aportant qualitat i seguretat a l'assistència amb una atenció eficient i especialitzada que permet un millor seguiment del pacient i del procés assistencial en la línia de Cook et al. (2019), mentre que pels pacients, tindria un impacte en el seu benestar (van Dusseldorp et al., 2019) i en la satisfacció de l'atenció rebuda. Pel que caldria considerar-se la contribució d'aquest rol de pràctica avançada en l'experiència del pacient i el seu impacte en el procés assistencial tal i com suggereixen altres estudis (Alessy et al., 2021; Alotaibi i Al Anizi, 2020; Stankle 2017).

Els resultats també mostren que els professionals dels equips van reconèixer l'IPA com un valor, la seva professionalitat, la capacitat en la gestió, en la resolució de problemes, en la contenció, la seva versatilitat i adaptació (Kerr et al., 2021). Pel que l'acceptació del rol d'IPA per part dels professionals dels equips multidisciplinaris és un fet i la consideren fonamental. Una comunicació fluïda, la maduresa dels equips i com s'han posicionat les IPA podria haver facilitat la implementació d'aquests rols.

La percepció del rol desenvolupat per l'IPA resulta molt positiu per les seves aportacions a l'assistència, el que recolza al fet de que les institucions i gestors haurien de prendre consciència del paper de les IPA, promoure i facilitar el seu desenvolupament competencial amb l'objectiu de potenciar i optimitzar aquests rols.

5.4. Limitacions

Les limitacions del primer subestudi, on es desenvolupa una metodologia Delphi, estan relacionades amb el mètode d'investigació i anàlisi. Si bé, el mètode Delphi es considera generalment una eina eficaç per determinar el consens d'experts, també ha estat criticat per ser vulnerable a una varietat de biaixos. Una limitació significativa de la tècnica Delphi prové de la pròpia definició de consens, ja que hi ha poc acord sobre com definir-lo (Keeney et al., 2011; Williams i Webb, 1994). Per tant, aquesta definició està determinada de manera inherent, almenys fins a cert punt, per l'opinió subjectiva de l'investigador.

Una altra limitació en el subestudi 1 és que no totes les regions sanitàries catalanes van estar representades, ja que el panell només va incloure els experts que van acceptar participar-hi. Tanmateix, la mostra va concentrar bona part del territori i també el que tenia un nombre més gran d'infermeres censades. En conseqüència, les competències identificades, podrien no ser valides per tot l'àmbit de Catalunya o algun centre en concret.

A més, es desconeix el nombre d'infermeres que treballen en llocs de pràctica avançada, ja que no existeix un registre d'aquest tipus d'infermeres a nivell autonòmic a Catalunya ni a nivell nacional a Espanya (Sevilla Guerra, 2018). En el nostre estudi i seguint els criteris del Consell Internacional d'Infermeres pel que fa a la formació de les IPA, el 76,2% i el 78,9% (segons la ronda) de les infermeres que van participar en l'estudi tenien un títol de màster o superior.

Tot i proporcionar informació als membres del panel sobre el mètode Delphi, vàrem enviar correus electrònics de recordatori a cada ronda i proporcionar comentaris després de la primera ronda, la taxa d'abandonament entre el primer i el segon qüestionari va ser del 21,4%. Això és coherent amb les taxes de resposta d'altres estudis de Delphi, amb taxes que varien entre el 15% i el 80%) (Barrett et al. 2001; Mcilfatrick i Keeney, 2003).

En el segon subestudi, el format virtual dels grups focals, per la dinàmica, podria dur a una pèrdua d'espontaneïtat, així com una dificultat per part del moderador en la gestió del grup (Stewart i Sahamdasani, 2015). Durant la realització dels grups focals, es va aconseguir crear un clima de confiança que va afavorir la participació dels professionals. El paper del moderador va permetre als participants manifestar la seva opinió i vivència en relació al fenomen.

La majoria dels professionals tenien una àmplia experiència en el desenvolupament del rol i la majoria estaven consolidats, per tant, una part important dels participants tenia una trajectòria com a IPA que anava des de etapes inicials en la implementació del rol fins la seva consolidació. De la mateixa manera es constata dificultats relacionades amb una manca de clarificació del rol, de les competències, dels llocs de treball, de la formació i a nivell legal, el que pot fer pensar que molt possiblement el desenvolupament del rol és desigual, tot i que les dificultats i facilitadors reportats pels participants en la implementació

d'aquests rols són similars. D'altra banda es desconeix com el context influeix en aquest desenvolupament.

En el tercer subestudi, el context de pandèmia ha determinat la realització de les entrevistes als professionals dels equips multidisciplinaris per videoconferència, tot i que per una altra banda possiblement va facilitar la seva participació. Aquesta elecció tenia el recolzament del fet que els professionals estaven habituats a la seva utilització, el que ens fa pensar que no va ser una limitació (Jackson el tal., 2008). En el cas dels pacients, es va esperar a que la incidència del COVID disminuís per poder realitzar les entrevistes en les condicions requerides en l'estudi. La mostra podria estar condicionada al coincidir les entrevistes amb les cites dels pacient a l'hospital, i malgrat la poca variabilitat de pacients en relació a la patologia, les experiències relatades pels pacients van ser similars i consistents en tota la mostra.

Al no estar regulada la pràctica avançada en el context català pot haver-hi una certa heterogeneïtat en la implementació dels diferents rols professionals d'IPA. Un altre aspecte és com el context pot determinar el desenvolupament de la pràctica avançada.

6. CONCLUSIONS

Aquest estudi ens ha permès conèixer l'abast del desenvolupament de les competències de les IPA en càncer en l'àmbit català, així com quines haurien de ser les competències que caldria desenvolupar. La implementació de rols de pràctica avançada en l'àmbit oncològic català és un fet però les troballes mostren un desenvolupament incomplet de les competències pròpies de les IPA. Les competències relacionades amb la pràctica clínica directa, la consultoria i col·laboració o les relacions interprofessionals estan relativament desenvolupades en contrast amb el lideratge, la recerca, la pràctica basada en l'evidència o millora de la qualitat.

Aspectes relacionats amb la formació, el desenvolupament del lideratge i la disponibilitat de temps han estat els factors més reportats en relació al no desenvolupament de competències.

A mes aquest estudi ens ha permès comprendre l'experiència de les infermeres en el desenvolupament del rol d'IPA en l'atenció al pacient oncològic, així com els facilitadors i barreres en la implementació del rol. Les IPA són conscients de que no desenvolupen el rol en tota la seva amplitud o potencial, tot i que presenten una actitud positiva enfront les barreres i dificultats en el desenvolupament del rol de pràctica avançada. Aquesta actitud, el compromís professional, el lideratge tant clínic com professional els ha permès posicionar-se en el rol de pràctica avançada en entorns poc favorables, pel que la capacitat d'exercir el lideratge és clau per desenvolupament del rol com a IPA.

S'han detectat dificultats per accedir a una formació específica a nivell acadèmic i també pel que fa a la formació continuada especialitzada, que hauria d'estar harmonitzada a nivell competencial i que acrediti els diferents rols d'IPA en el sistema sanitari català.

Tant els professionals com els pacients han identificat aspectes rellevants de les IPA i les han considerat fonamentals, clau i indispensables en l'atenció al pacient oncològic, en la gestió del procés assistencial i dins els equips multidisciplinaris.

La implantació de rols de pràctica avançada es fonamental per donar resposta a les necessitats del pacient oncològic, contribuint a fer un sistema sanitari més eficient i a una assistència de qualitat i més segura.

Per una altra banda, les institucions han de prendre consciència del desenvolupament d'aquests rols i del valor que aporten a l'assistència del pacient oncològic per facilitar i donar suport al desenvolupament, així com definir els llocs de treball.

Les institucions i gestors, també han de prendre consciència de les possibles conseqüències de la manca de suport percebuda per part de les IPA: en la motivació dels professionals, en la permanència en els llocs de treball, en la satisfacció professional i en la qualitat de l'atenció prestada.

7. RECOMANACIONS I IMPLICACIONS PER LA PROFESSIÓ INFERMERA

Es constata la necessitat d'elaborar un marc de competències i estàndards de la pràctica infermera per poder determinar els requisits educatius i disposar d'una acreditació o certificació per poder avançar en la implementació de la pràctica avançada.

Tot i que es tracta d'una investigació molt inicial del desenvolupament competencial de les IPA en càncer a nivell català, aquest estudi podria ser un petit punt de partida per definir un marc de competències.

Es necessiten més estudis per tenir un coneixement més profund del desenvolupament de la pràctica avançada pel que fa a la definició dels rols, de les funcions de les IPA, de les responsabilitats i dels llocs de treball. També es fa necessari avançar en l'estudi dels factors contextuals i dels entorns.

Els resultats de l'estudi poden ajudar als gestors i institucions a prendre consciència de la implementació de la pràctica avançada, així com establir estratègies per la promoció i desenvolupament d'aquests rols. I de manera més específica, impulsar el desenvolupament de les competències pròpies de les IPA en tota la seva amplitud per poder optimitzar aquests rols.

Es fa necessari visibilitzar la contribució i el valor afegit de les IPA en els resultats dels pacient per poder potenciar aquests rols i justificar el desenvolupament de nous rols en les diferents àrees d'atenció sanitària.

El reconeixement acadèmic, institucional i professional del rol d'IPA és fonamental ja que facilitaria la implementació d'aquest rol evitant sentiments negatius com la frustració, el cansament, la insatisfacció o l'estrès que poden tenir un impacte en la motivació i la qualitat de l'assistència.

Finalment, a nivell governamental, els col·legis professionals i les associacions d'infermeres han de treballar per establir mecanismes reguladors per assegurar la formació, definir el marc competencial i legal que permeti i garanteixi el desenvolupament de la pràctica avançada

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9. ANNEXOS

Annex1. Finançament pel Col·legi Oficial d'Infermeres i Infermers de Barcelona (www.coib.cat) en el marc de les Ajudes a la Recerca Infermera (PR-48 /2021)

COL·LEGI OFICIAL
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BARCELONA

CONVOCATÒRIA D'AJUDES A LA RECERCA INFERMERA 2021

Benvolguda Sra. Serra, Mª Antonia,

Finalitzat el procés d'avaluació dels projectes presentats a la Convocatòria d'Ajudes a la Recerca del Col·legi Oficial d'infermeres i Infermers de Barcelona, per part del Comitè Avaluador Extern Expert en Recerca, ens plau en primer lloc felicitar a tot l'equip investigador per la qualitat científica i metodològica del Projecte: **PR-478/2021** sota el títol de "*Estat de situació del desenvolupament de la Pràctica Avançada Infermera en la cura del pacient oncològic a Catalunya.*"

Així mateix volem comunicar-li que l'esmentat projecte ha estat seleccionat per a ser finançat amb una dotació econòmica de **1.430€.**

En breu ens posarem en contacte amb vostè per a decidir el dia més adient per a realitzar una reunió amb l'objectiu d'informar del procediment a seguir i de la distribució de la dotació econòmica.

Cal que tingui en compte les següents indicacions per a la nova distribució econòmica del seu projecte:

- Bens i Serveis : **1.300 €** distribuïts de la següent manera :
  - Traducció article = **600 €**
  - Catering grups focals = **200€**
  - Llicència NVivo = **500€**
- Overheads (10%): **130 €**

Una vegada més, felicitar-vos per l'esforç realitzat amb l'elaboració del vostre projecte i per l'aportació a la professió infermera.

Cordialment,

Àrea de Projectes
Pilar Delgado, Llúcia Benito i Marta Romero

Barcelona, 7 d'octubre de 2021

COL·LEGI OFICIAL D'INFERMERES I INFERMERS DE BARCELONA
REGISTRE DE **SORTIDA**
Núm. 4361
Data 07/10/2021

Annex 2. Resolució CEIC

Bellvitge Hospital Universitari
Institut Català de la Salut

Generalitat de Catalunya
Departament de Salut

INFORME DEL COMITÉ DE ÉTICA DE INVESTIGACIÓN CLÍNICA SOBRE PROYECTOS DE INVESTIGACIÓN

El Dr. Enric Sospedra Martínez, Secretario del Comité Ético de Investigación Clínica del Hospital Universitari de Bellvitge,

CERTIFICA

Que el Comité de Ética de Investigación Clínica del Hospital Universitari de Bellvitge, en su reunión de fecha 21 de Junio de 2018 (Acta 12/18), tras examinar toda la documentación presentada sobre el proyecto de investigación con nuestra ref. **PR277/18**, titulado:

"EVALUACIÓN DEL NIVEL DE DESARROLLO DE LA PRÁCTICA AVANZADA ENFERMERA EN EL CUIDADO DEL PACIENTE ONCOLÓGICO EN CATALUÑA.", código **COMP_IP/ICO/2018**, versión 1 L'Hospitalet, 31 de mayo de 2018.

Presentado por la Dra. Mª Antonia Serra i Barril de Dirección de Cuidados del ICO, como investigadora principal y promovido por el Institut Català d'Oncologia, ha acordado emitir INFORME FAVORABLE al mencionado proyecto.

Que la composición actual del Comité de Ética de Investigación Clínica es la siguiente:

Presidente	Dr. Francesc Esteve Urbano	Médico - Medicina Intensiva
Vicepresidente	Dra. Pilar Hereu Boher	Médico - Farmacología Clínica
Secretario	Dr. Enric Sospedra Martínez	Farmacéutico - Farmacia Hospitalaria
Vocales:	Dr. Jordi Adamuz Tomás	Enfermero – Enfermería
	Dra. María Berdasco Menéndez	Bióloga - miembro no sanitario
	Dra. Concepción Cañete Ramos	Médico - Neumología
	Dr. Enric Condom Mundo	Médico - Anatomía Patológica
	Dr. Xavier Corbella Virós	Médico - Medicina Interna
	Sra. Consol Felip Farrás	Miembro Laico - Docencia
	Dr. José Luis Ferreiro Gutiérrez	Médico - Cardiología
	Dra. Ana María Ferrer Artola	Farmacéutica - miembro sanitario
	Dr. Josep Ricard Frago Montanuy	Médico - Cirugía General y Digestiva
	Dr. Xavier Fulladosa Oliveras	Médico - Nefrología
	Dra. Margarita García Martín	Médico - Oncología Médica
	Dr. Carles Lladó i Carbonell	Médico- Urología
	Dr. Josep Manel Llop Talaveron	Farmacéutico – Farmacia Hospitalaria
	Sra. Sonia López Ortega	Graduado Social - Atención a la Ciudadanía
	Dr. Sergio Morchón Ramos	Médico - Medicina Preventiva
	Dr. Joan Josep Queralt Jiménez	Jurista
	Dr. Ricard Ramos Izquierdo	Médico - Cirugía Torácica

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Bellvitge Hospital Universitari

Institut Català de la Salut

Generalitat de Catalunya
Departament de Salut

Dra. Gemma Rodríguez Palomar	Farmacéutica – Atención Primaria
Dra. Nuria Sala Serra	Bióloga - miembro no sanitario
Dr. Petru Cristian Simon	Médico - Farmacología Clínica

Que este Comité cumple la legislación española vigente para este tipo de proyectos, asi como las normas ICH y las Normas de Buena Práctica Clínica.

Que en dicha reunión del Comité de Ética de Investigación Clínica se cumplió el quórum preceptivo legalmente.

Lo que firmo en L'Hospitalet de Llobregat, a 21 de Junio de 2018

Bellvitge Hospital
Comitè Ètic d'Investigació Clínica

Fdo. Dr. Enric Sospedra Martínez
Secretario del CEIC

HUB
Hospital Universitari de Bellvitge
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Annex 3. Conformitat Direcció del Centre

ICO
Institut Català d'Oncologia

CONFORMIDAD DE LA DIRECCIÓN DEL CENTRO

La Dra. Mª del Carmen Galán Guzmán, Directora Asistencial del ICO L'Hospitalet, Institut Català d'Oncologia.

CERTIFICA:

Que conoce la propuesta realizada por el promotor **Institut Català d'Oncologia**, para que sea realizado en este Centro el proyecto de Investigación Biomédica con nuestra referencia **PR277/18** titulado: **"EVALUACIÓN DEL NIVEL DE DESARROLLO DE LA PRÁCTICA AVANZADA ENFERMERA EN EL CUIDADO DEL PACIENTE ONCOLÓGICO EN CATALUÑA."**, código **COMP_IP/ICO/2018**, versión 1 L'Hospitalet, 31 de mayo de 2018, que será realizado por la **Dra. Mª Antonia Serra i Barril** de Dirección de Cuidados como investigadora principal, aprobado por el Comité de Ética de la Investigación con Medicamentos (CEIm) del Hospital Universitari de Bellvitge en su reunión de fecha 21 de Junio de 2018 (Acta 12/18)

Que acepta la realización de dicho estudio en este Centro.

Lo que firmo en L'Hospitalet de Llobregat, a 21 de Junio de 2018

Dra. Mª del Carmen Galán Guzmán
Directora Asistencial del ICO L'Hospitalet,
Institut Català d'Oncologia

Generalitat de Catalunya
Departament de Salut

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ICO Badalona | Carretera del Canyet, s/n | 08916 Badalona | Tel. + 34 93 497 87 88 | Fax. + 34 93 497 87 04
ICO Girona | Av. França, s/n | 17007 Girona | Tel. + 34 972 225 835 | Fax. + 34 972 21 73 44
www.iconcologia.net

Annex 4. Correu d'acceptació del manuscrit

Journal of Advanced Nursing <onbehalfof@manuscriptcentral.com>

19-Nov-2023

Dear Dr Benito-Aracil:

It is a pleasure to provisionally accept your manuscript The role experience of advanced practice nurses in oncology: An interpretative phenomenological study for publication in Journal of Advanced Nursing. The comments of the reviewer(s) who reviewed your manuscript are included at the foot of this letter.

Please note that the files will be now be checked to ensure that everything is ready for publication, and you may be contacted if final versions of files are required.

Your article also cannot be published until the publisher has received the appropriate signed license agreement. When the article is received by Production, the corresponding author will receive an email from Wiley's Author Services system with a prompt for logging into the system and completing the appropriate license.

Thank you for your contribution. On behalf of the Editors of Journal of Advanced Nursing, we look forward to your continued contributions to the Journal.

Sincerely,

.

Professor Debra Jackson

Editor-in-Chief, Journal of Advanced Nursing

P.S. – You can help your research get the attention it deserves! Wiley Editing Services offers professional video abstract and infographic creation to help you promote your research at www.wileyauthors.com/eeo/promotion. And, check out Wiley's free Promotion Guide for best-practice recommendations for promoting your work

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Editor Comments to Author:
Thank you for submitting your paper to the Journal of Advanced Nursing. We would welcome further papers from these authors.

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author
Thank you for answering my questions and addressing these in the manuscript