

VILNIAUS UNIVERSITETAS

MEDICINOS FAKULTETAS

Išplėstinės praktikos slaugos magistro baigiamasis darbas

**INTEGRATION OF ADVANCED PRACTICE NURSES IN LITHUANIAN HEALTH
SYSTEM: NEED AND MOTIVATION**

**Išplėstinės praktikos slaugytojų integracija į Lietuvos sveikatos sistemą: poreikis ir
motyvacija**

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Mokslo tiriamojo darbo įteikimo data 2025

Registracijos Nr. _____

2025m.

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SUMMARY

This thesis explores the integration of Advanced Practice Nurses (APNs) into the Lithuanian healthcare system, a process that aligns with global trends aiming to improve healthcare accessibility, efficiency, and patient outcomes. Despite the development of APN educational programs in Lithuania, the actual integration of APNs into practice remains limited. The study focuses on understanding the perceived need for APNs, their motivation, and the challenges and solutions to their integration from the perspectives of both APNs and healthcare administrators.

A qualitative research design was employed, using semi-structured interviews with twelve participants—six APNs and six healthcare administrators. Purposeful sampling ensured representation from primary care, emergency, and intensive care settings. Interviews were conducted between February and March 2025, recorded, and transcribed by the researcher. Thematic analysis was used to identify key patterns across participant responses.

Findings revealed a strong consensus among both groups about the need for APNs in addressing physician shortages, managing chronic diseases, improving rural healthcare access, and enhancing preventive care. APNs expressed high motivation to work more autonomously and contribute to systemic improvements. However, they reported frustration due to unclear legal status, limited role recognition, and institutional barriers. Administrators acknowledged the APNs' potential and echoed the need for legal frameworks, proper role descriptions, and public awareness to support integration.

The study concludes that while the need and motivation for APN integration are evident, progress is hindered by structural, legal, and cultural challenges. Both stakeholder groups support the development of APN roles but emphasize the importance of systemic reform and institutional readiness.

Key recommendations include Health ministry of Lithuania and healthcare institutions should establish clear legislation defining APN competencies and autonomy; developing structured job descriptions; implementing public education campaigns to raise awareness and trust; ensuring fair remuneration and professional recognition; and fostering interprofessional collaboration through mentorship and shared care models. APNs should actively participate in discussions with management, policymakers, and professional organizations to advocate for their role and showcase their contributions.

This research contributes valuable evidence to support policy and practice reforms that will enable APNs to fully contribute to the future of healthcare in Lithuania.

Keywords: Advance practice nurse, need and motivation of APN, barriers and facilitators of integration, healthcare system, quality of care.

SANTRAUKA

Šiame darbe nagrinėjama išplėstinės praktikos slaugytojų (IPS) integracija į Lietuvos sveikatos priežiūros sistemą – procesas, atitinkantis pasaulines tendencijas, kuriomis siekiama gerinti sveikatos priežiūros prieinamumą, efektyvumą ir pacientų rezultatus. Nepaisant IPS švietimo programų plėtros Lietuvoje, faktinė IPS integracija išlieka ribota. Tyrime daugiausia dėmesio skiriama suvokiamam IPS poreikiui, jų motyvacijai ir jų integracijos iššūkiams bei sprendimams suprasti tiek iš IPS, tiek iš sveikatos priežiūros administratorių perspektyvos.

Buvo naudojamas kokybinis tyrimo planas, naudojant pusiau struktūruotus interviu su dvylika dalyvių - šešiais IPS ir šešiais sveikatos priežiūros administratoriais. Tikslingas mėginių ėmimas užtikrino IPS atstovavimą iš pirminės sveikatos priežiūros, skubios pagalbos ir intensyviosios terapijos sričių. Interviu buvo atlikti 2025 m. vasario–kovo mėnesiais, tyrėja juos įrašė ir transkribavo. Teminė analizė buvo naudojama siekiant nustatyti pagrindinius dalyvių atsakymų modelius.

Išvados atskleidė, kad abi grupės tvirtai sutaria dėl IPS poreikio sprendžiant gydytojų trūkumo problemą, valdant lėtines ligas, gerinant sveikatos priežiūros prieinamumą kaimo vietovėse ir gerinant prevencinę priežiūrą. IPS išreiškė didelę motyvaciją dirbti savarankiškiau ir prisidėti prie sisteminių patobulinimų. Tačiau jie pranešė apie nusivylimą dėl neaiškaus teisinio statuso, riboto vaidmens pripažinimo ir institucinių kliūčių. Administratoriai pripažino IPS potencialą ir pakartojo, kad reikia teisinių sistemų, tinkamų vaidmenų aprašymų ir visuomenės informuotumo, kad būtų remiama integracija.

Tyrime daroma išvada, kad nors IPS integracijos poreikis ir motyvacija yra akivaizdūs, pažangai trukdo struktūriniai, teisiniai ir kultūriniai iššūkiai. Abi suinteresuotųjų subjektų grupės remia IPS vaidmenų plėtojimą, tačiau pabrėžia sisteminės reformos ir institucinio pasirengimo svarbą.

Pagrindinės rekomendacijos – Lietuvos sveikatos apsaugos ministerija ir sveikatos priežiūros įstaigos turėtų priimti aiškius teisės aktus, apibrėžiančius IPS kompetencijas ir savarankiškumą; struktūrizuotų pareigybių aprašymų rengimą; įgyvendinti visuomenės švietimo kampanijas, kuriomis siekiama didinti informuotumą ir pasitikėjimą; užtikrinti teisingą atlygį ir profesinį pripažinimą; tarpprofesinio bendradarbiavimo skatinimą pasitelkiant mentorystę ir bendros priežiūros modelius. Kalbant apie IPS, jie turėtų aktyviai dalyvauti diskusijose su vadovybe, politikos formuotojais ir profesinėmis organizacijomis, kad pasisakytų už savo vaidmenį ir pademonstruotų savo indėlį.

Šis tyrimas suteikia vertingų įrodymų, padedančių vykdyti politikos ir praktikos reformas, kurios leis IPS visapusiškai prisidėti prie sveikatos priežiūros ateities Lietuvoje.

Raktiniai žodžiai: Išplatinės praktikos slaugytojas, IPS poreikis ir motyvacija, integracijos kliūtys ir pagalbininkai, sveikatos priežiūros sistema, priežiūros kokybė.

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to prof. dr. Jekaterina Šteinmiller and prof. dr. Natalja Istomina for their invaluable guidance, support, and encouragement throughout the duration of my thesis. Their expertise and insights have been instrumental in shaping the direction and outcome of this research. I would also like to thank to all the participants for their participation in the study.

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LIST OF ABBREVIATIONS

APN- Advance practice nurse

RN- Registered nurses

CNS- Clinical nurse specialist

ICN- International Council of Nurses

NP- Nurse Practitioner

CNS- Clinical Nurse Specialist

CNM- Certified Nurse Midwife

CRNA- Certified Registered Nurse Anaesthetist

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INTRODUCTION

Healthcare systems worldwide are under significant pressure due to aging populations, rising rates of chronic diseases, more patients with complex healthcare needs and a shortage of healthcare providers (1,2). Particularly countries with low gross national income are facing difficulties in providing quality care and timely access to healthcare (3). In order to meet the changing population needs, healthcare systems worldwide are under continuous transformation (4). And in response to these challenges, many countries have integrated Advanced Practice Nurses into their healthcare frameworks to enhance patient access, improve healthcare outcomes, and alleviate the pressures on healthcare system (5). Nursing as a profession has evolved to meet patient and healthcare service needs, including the development of APN (6) APNs, who possess advanced clinical education and training, are now a well-recognized for their ability to provide high-quality care, especially in primary, preventive, and specialized services (7). Since the formal acceptance and recognition by the International Council of Nurses, the role of advance practice nurses has been adopted by most departments and clinical specialties, particularly in developed countries (8). Starting from United States, the role of APNs has spread globally, and their integration has proven effective in meeting healthcare needs in countries such as the United States, Canada, and the United Kingdom, serving as a model for health system innovation (6).

In Lithuania, the healthcare system is also under pressure. The country faces significant challenges, including an aging population, an increase in chronic diseases, and a shortage of qualified healthcare providers, particularly in rural and underserved areas (9). In 2014, the Ministry of Health approved the Advanced Practice Nursing program. This was followed by amendments to the Nursing Practice and Midwifery Practice Law in 2015, which for the first time enabled applicants to pursue a two-year master's degree program in advanced practice nursing(10). Despite the critical role nurses play in Lithuanian healthcare, the potential of Advanced Practice Nurses remains largely untapped, with limited formal roles or pathways for APNs to practice autonomously and contribute their skills to the healthcare system (11). Even though The 2023 update of the study by the Centre for Strategic Analysis (STRATA) forecasts that in 2032 Lithuania will have a shortage of 1328 advanced practice nurses, only 119 APN's have active licences according to State Accreditation Health Care Service under the Ministry of Health Protection (12,13).

The integration of APNs into the Lithuanian healthcare system could offer valuable solutions to these challenges by expanding access to quality care and optimizing the healthcare workforce. However, the lack of established APN roles in Lithuania and the limited motivation or support from healthcare institutions pose barriers to their integration. Furthermore, research exploring the specific needs and

motivations behind APN roles within the Lithuanian healthcare system is scarce, making it difficult to address these challenges effectively.

Aim of research - To investigate integration of advanced practice nurses in Lithuanian health system from nurses and management point of view.

Objectives of the research:

1. Identify the need of advanced practice nurses in Lithuanian health system from nurses' and management point of view.
2. Identify the motivation of advanced practice nurses in Lithuanian health system from nurses' and management point of view.
3. To identify problems and possible solutions of integration of advanced practice nurses in Lithuanian health system.

Research subject: advanced practice nurses in Lithuania and management of hospitals and primary health care centres.

Research object: integration of advanced practice nurses into Lithuanian health system: need and motivation.

1. LITERATURE REVIEW

1.1. Conceptual overview

The evolving nature of healthcare need has increased the global emphasis on extending the role of nurses' profession. Advanced Practice Nurses (APNs) are increasingly recognized for their ability to improve healthcare access, patient outcomes, and system efficiency. Their integration into national health systems has been the subject of scholarly and policy discourse in countries across Europe, North America, and beyond. Understanding the conceptual framework, historical evolution, and role definitions of APNs is essential in contextualizing their relevance to the Lithuanian healthcare landscape.

1.1.1. Concept and Definition of Advanced Practice Nursing

Advanced Practice Nursing (APN) is a role that extends beyond the traditional scope of nursing by incorporating a higher degree of autonomy, clinical expertise, decision-making skills, and often prescriptive authority (14). According to the International Council of Nurses (ICN), an APN is a registered nurse who has acquired expert knowledge, complex decision-making skills, and clinical competencies for expanded practice, typically supported by a master's degree or higher (6).

The umbrella term "Advanced Practice Nurse" includes various role titles, such as Nurse Practitioner (NP), Clinical Nurse Specialist (CNS), Certified Nurse Midwife (CNM), and Certified Registered Nurse Anaesthetist (CRNA) (15). Each role varies slightly in focus, regulatory framework, and educational requirements across countries, but all are characterized by an advanced level of clinical responsibility and autonomy (16).

In Europe, the concept of APNs continues to evolve, with differing levels of integration and recognition across national systems (17). The ICN guidelines and European frameworks aim to promote consistency, but regional interpretations and policy environments significantly influence implementation (4,5).

1.1.2. Exploring the Role, Evolution, and Integration of Advanced Practice Nurses in Modern Healthcare Systems

The development of APN roles can be traced back to the mid-20th century, particularly in North America (18). In the United States, the nurse practitioner role emerged in the 1960s in response to a shortage of primary care providers and a growing demand for accessible community health services (19). Nurse Loretta Ford and physician Henry Silver are widely credited with launching the first NP program at the University of Colorado in 1965, initially focused on paediatric care (20,21).

Following this innovation, other APN roles such as the CNS, CNM, and CRNA developed in response to healthcare system needs. Over time, these roles became formally integrated into national policy and education systems, supported by professional organizations and legislative bodies (22).

In contrast, many European countries—including Lithuania—have adopted APN models more recently, often influenced by international benchmarks, domestic healthcare workforce shortages, and increasing complexity in patient care (10,23). Countries such as the UK, France, Switzerland, and the Nordic nations have taken varied approaches to defining, training, and regulating APNs, but all reflect a trend toward expanding nursing responsibilities to meet growing healthcare demands (24,25).

While the terms APN, NP, ANP, and CNS are sometimes used interchangeably, they often carry distinct meanings depending on national regulatory contexts (26). In America, the term Advanced Practice Registered Nurse (APRN) encompasses four recognized roles under a regulatory consensus model: NP, CNS, CNM, and CRNA. Each role shares a foundation of advanced education and clinical expertise, but with specific functional focuses (15,27).

For instance, Nurse Practitioners (NPs) often serve as primary care providers with prescriptive authority, managing patient care independently or in collaboration with physicians (28). Clinical Nurse Specialists (CNSs), on the other hand, focus on specific patient populations or clinical specialties, often emphasizing research, education, and systems-level improvement rather than direct care alone. These distinctions, however, are increasingly blurred in practice, as both roles now commonly participate in diagnosis, care planning, and evidence-based interventions (26,29).

In the UK context, the title Advanced Nurse Practitioner (ANP) refers more generally to a nurse operating at a high level of autonomy, often in primary or emergency care. These roles are guided by national frameworks such as the NHS Career Framework and emphasize a broader skill set, including leadership and education (30,31).

Globally, the integration of APNs into healthcare systems has been both a response to and a solution for systemic pressures such as physician shortages, rising healthcare costs, and chronic disease burdens (5). Countries with long-standing APN roles report high patient satisfaction, comparable or improved health outcomes, and cost-effective care delivery (8).

For example, in France, the legal introduction of APNs in 2018 marked a major policy shift, and early evaluations show promising results in patient access and system responsiveness (25). Similarly, in Switzerland, the integration of APNs in primary care is helping to meet growing demand, though role clarity and professional boundaries remain ongoing challenges (7).

In the Baltic region, Lithuania and its neighbours are exploring APN implementation, often guided by regional collaborations and comparisons with more established models in Nordic countries (1). Despite shared goals, the pace and depth of integration vary significantly.

1.2. Comparison of Policy, Education, and Regulation for Integration of Advanced Practice Nursing with a Focus on Lithuania

The effective integration of Advanced Practice Nurses (APNs) into healthcare systems depends heavily on well-established policy frameworks, clearly defined regulatory structures, and accessible educational pathways. While the concept of advanced nursing practice has gained traction globally, its actual implementation varies significantly across countries depending on national legislation, institutional readiness, and professional recognition. This section explores the policy, education, and regulatory dimensions shaping APN roles internationally, with an emphasis on their relevance and implications for Lithuania.

The International Council of Nurses (ICN) has played a pivotal role in setting global benchmarks for APN development (32). The ICN's 2020 guidelines emphasize that APNs should be educated at the master's level, possess advanced clinical competencies, and be regulated through nationally consistent licensure and scope of practice guidelines. These standards serve as a reference point for many countries developing or reforming their APN models (1,6).

Countries such as the United States, Canada, and the United Kingdom have well-defined APN roles supported by national policies (17,23). In the United States, the Consensus Model for APRN Regulation outlines a uniform structure for education, accreditation, licensure, and certification for four recognized roles: NP, CNS, CNM, and CRNA (15). This model has provided a framework for professional consistency and public trust in APN roles, though state-level differences still persist.

In contrast, European countries have adopted more diverse strategies. The UK has integrated APNs within its National Health Service (NHS) through advanced practice frameworks that emphasize the “four pillars” of practice: clinical expertise, leadership, education, and research (31). Similarly, in France, national legislation formally introduced APNs in 2018, accompanied by new educational pathways and professional recognition (25). However, even in these relatively advanced contexts, challenges related to interprofessional collaboration, role clarity, and funding remain (33).

Education is a cornerstone of advanced nursing practice. ICN guidelines recommend that APNs attain at least a master's degree and receive formal training in areas such as advanced health assessment, pharmacology, pathophysiology, clinical reasoning, leadership, and research methods (6). These requirements aim to ensure that APNs possess the knowledge base and decision-making capacity to function autonomously and collaboratively in complex clinical settings.

In the United States and Canada, APN education is delivered through accredited graduate programs, many of which are supported by national nursing organizations and subject to rigorous quality assurance processes (22). Simulation-based training, interprofessional learning, and clinical preceptorships are standard components of these programs (34).

European efforts have also focused on aligning APN education with these global standards. In Austria, APN programs are increasingly outcome-oriented, emphasizing evidence-based care and patient safety (35). In Spain and Switzerland, institutions have piloted multidisciplinary curricula that blend nursing science with clinical specialization and policy education (7,36).

Regulatory clarity is vital to APN role legitimacy. Countries with established APN systems typically use protected titles, licensure requirements, and credentialing boards to ensure professional accountability. For example, in the U.S., APNs must obtain national board certification in their specialty and maintain licensure through continuing education (15).

In the UK, although the ANP title is not legally protected, NHS trusts and professional bodies have developed frameworks to guide APN practice, emphasizing credential verification and institutional oversight (30). In France, APNs must complete a government-accredited program and are authorized under national law to perform certain medical functions independently (25).

In Lithuania, regulatory structures remain underdeveloped. While nurses may take on advanced tasks in clinical practice, there is no protected APN title or legal definition distinguishing these roles. The absence of formal licensure or credentialing criteria creates uncertainty for both professionals and employers, limiting the expansion of advanced roles (10,11). The State Accreditation Service for Healthcare Activities tracks nursing qualifications, but does not currently differentiate between generalist and advanced practice roles (12).

Lithuania is gradually moving toward a more defined framework for nursing role expansion. The Ministry of Health has issued several strategic documents emphasizing the importance of task redistribution within the health workforce to address physician shortages and improve access to care(9). One such initiative is the “Action Plan to Reduce the Shortage of Doctors,” which calls for expanding the competencies of nurses and midwives (37).

Despite these efforts, the legislative and institutional support for APNs remains limited. Interviews with nursing leaders in Lithuania reveal that the integration of APNs is often hindered by unclear policies, lack of academic preparation pathways, and resistance from medical professionals who are uncertain about the role's implications (11).

However, progress is being made at the grassroots and academic levels. Pilot projects, such as those related to home-based care and integrated primary health teams, are already involving nurses in extended roles, demonstrating the feasibility and benefits of APN integration (1).

Lithuania's position is not unique; other Central and Eastern European countries face similar challenges. A scoping review by Egerod et al. (2021) noted that in many European countries, APN roles are still in early development stages, with wide variability in regulation and professional recognition (38). A study of APN implementation in Catalonia, Spain, highlighted the need for national legislation and consistent role descriptions as key enablers of success (39).

Moreover, Lithuania's Baltic neighbours are gradually advancing APN integration. Estonia and Latvia have initiated postgraduate programs and begun defining APN scopes of practice. Research shows that regional collaboration is necessary to build unified educational and regulatory strategies across the Baltic and Nordic countries (1).

1.3. Integration of Advanced Practice Nursing in Lithuania: Challenges, Barriers, and Facilitating Factors

Despite growing recognition of the value that APNs bring to healthcare systems, numerous challenges continue to obstruct their widespread implementation. These challenges vary depending on regional, institutional, and political contexts but generally fall under four main categories: regulatory barriers, professional resistance, educational limitations, and cultural or systemic factors. For countries like Lithuania, which are still in the early stages of APN integration, these challenges are particularly significant.

1.3.1. Regulatory and Legal Barriers

A major obstacle to APN integration is the lack of consistent national regulatory frameworks (40). In countries where advanced nursing roles are well-established, APNs benefit from legally protected titles, nationally standardized scopes of practice, and clear licensure procedures (4,34). In contrast, Lithuania and several Central and Eastern European nations have not yet developed these foundational structures, resulting in ambiguous role definitions and inconsistent practice rights (10,11).

For example, in Lithuania, while nurses are increasingly involved in advanced clinical activities, these responsibilities are not formally recognized or regulated by law (1). This legal ambiguity restricts their autonomy and undermines their professional identity. As noted by the Ministry of Health's 2024 action plan, reform is needed to legally expand nursing competencies to alleviate physician shortages, especially in underserved areas (13).

Countries like France have shown that formalizing APN roles through legislation can yield significant progress (33). The introduction of legally defined APN roles in 2018 in France enabled nurses to provide direct care under new scopes of practice, demonstrating that policy reform can accelerate APN integration (25).

1.3.2. Professional Resistance and Hierarchical Structures

Interprofessional resistance, particularly from medical professionals, is another major barrier to APN implementation (39). Physicians may view the expansion of nursing roles as a threat to their professional territory, particularly in systems where authority hierarchies are deeply rooted (41). This dynamic can result in tensions within healthcare teams and resistance to change, even when policy supports APN integration (38,42) .

In Lithuania, qualitative studies reveal that some physicians are sceptical about nurses' ability to function autonomously, even if supported by advanced education and training (43). This scepticism may stem from a lack of awareness about APN competencies and training standards, as well as traditional views of hierarchical team structures (44).

However, successful examples from the UK, Canada, and Switzerland demonstrate that interprofessional collaboration can flourish when APN roles are clearly defined and institutional support is strong (7,30). These countries have shown that with proper orientation, role clarity, and trust-building, APNs can be integrated smoothly into multidisciplinary teams.

1.3.3. Educational and Institutional Gaps

The absence of formal APN education programs within national higher education systems significantly impedes the development of a qualified APN workforce (45). While Lithuania has advanced nursing education at the bachelor's level, postgraduate programs specifically designed for APN competencies are still in the stages of development (1).

Without structured programs aligned to international standards (e.g., the ICN framework), nurses cannot acquire the qualifications needed to practice independently or qualify for future credentialing pathways (6). Furthermore, limited availability of clinical placements, preceptors, and simulation-based training reduces the quality and scalability of advanced nursing education (34).

A lot of progress has been made at institutional levels. Lithuanian universities and professional associations have expressed interest in developing APN-focused curricula. Pilot projects in municipal hospitals and primary care networks have also tested models of extended nursing practice, particularly in chronic disease management and community-based care (46,47).

1.3.4. Sociocultural Perceptions and Public Awareness

Another layer of complexity involves societal and patient perceptions of what nurses can and should do. In many settings, including Lithuania, nursing is often viewed as subordinate to medicine. This perception influences public expectations, professional self-confidence, and policymaker support for APN expansion (18,48).

Studies in Lithuania have found that both patients and nurses themselves may not fully understand the potential of APN roles (1). As a result, public trust in autonomous nurse-led care remains limited, hindering patient acceptance and the political momentum necessary for systemic change (44,49).

Targeted awareness campaigns and education initiatives can help shift these perceptions (7). Research from Spain and the UK indicates that as patients and healthcare workers experience the benefits of APNs firsthand—through shorter wait times, improved chronic care, and continuity—they tend to become more supportive of the model (36,50).

1.3.5. Financial and Resource Constraints

Finally, resource constraints pose a practical barrier to implementing and sustaining APN roles. Establishing APN programs requires investment in education, faculty development, regulatory systems, and salary structures that reflect advanced responsibilities (39). In Lithuania, limited health budgets and competing policy priorities have delayed these investments, especially in rural areas with already strained infrastructure (9).

Cost-effectiveness studies from other countries have demonstrated that APNs can reduce system-level expenses through fewer hospital readmissions, better management of chronic conditions, and improved preventative care (51). However, these benefits require initial upfront investment, which may be difficult to justify politically without robust pilot data or external funding support (8).

1.3.6. Facilitating Factors for APN Integration

Despite persistent barriers, several enabling factors have supported the successful integration of Advanced Practice Nurses (APNs) internationally. These facilitators span across policy reform, educational advancement, interprofessional collaboration, and cultural transformation (15,24,52).

One of the most significant drivers is strong policy and legislative support (15). Countries such as the United Kingdom, France, and the United States have established APN roles through national laws, clinical guidelines, and workforce planning documents (5,7). In France, national legislation provided clear role definitions, responsibilities, and funding, enabling APNs to be integrated into primary and chronic care settings (25). The UK has similarly advanced APN practice through national NHS frameworks that emphasize standardized training and scope of practice (31).

Educational infrastructure has also played a pivotal role. In countries with robust APN systems, such as Canada, Sweden, and Finland, master-level nursing education is standardized and widely accessible (7). Programs follow ICN recommendations and emphasize clinical reasoning, leadership, and research skills (1). The presence of dedicated master's or doctoral programs ensures that APNs are adequately prepared for autonomous practice, which in turn strengthens their professional credibility (15).

Interprofessional collaboration is another key enabler. In Switzerland, for instance, primary care networks have welcomed APNs into general practice settings due to clear role boundaries and mutual respect between physicians and nurses (7). Evidence from Spain and Australia also highlights that involving physicians and stakeholders early in role design improves acceptance and eases integration (39,48).

Pilot programs have served as valuable testing grounds. In various European countries, APNs have demonstrated effectiveness in chronic disease management, elder care, and community health—helping to alleviate pressure on general practitioners and reduce system inefficiencies (5). Such programs provide localized data on outcomes, efficiency, and patient satisfaction, which can drive broader policy change.

Lastly, public and professional recognition of the APN role is increasing due to communication campaigns, frontline visibility during crises like COVID-19, and patient satisfaction outcomes (53). In Spain, for example, patients appreciated the continuity, accessibility, and communication provided by APNs in hospitalization wards (36). Over time, such experiences contribute to cultural acceptance and legitimacy of advanced nursing roles.

Together, these international experiences illustrate that while APN integration is complex, it is achievable when supported by targeted policies, academic development, interdisciplinary collaboration, and public trust (7,15,54,55).

1.4. Motivation to Pursue Advanced Practice Nursing Roles

Motivation is a critical component in the development and sustainability of the Advanced Practice Nurse (APN) workforce, particularly in health systems undergoing transformation, such as Lithuania's. Across the literature, APNs are driven by a blend of personal, professional, and systemic factors that influence their pursuit of advanced roles.

APNs are commonly driven by the pursuit of clinical excellence, expanded autonomy, and meaningful involvement in patient care. Nurses frequently cite a desire to provide holistic, patient-centred services, moving beyond task-oriented responsibilities (20,36).

Advanced roles also offer leadership opportunities within healthcare teams. APNs are motivated by the ability to influence health outcomes at both individual and population levels, and to assume roles in mentoring or policy development (3,26). Similar trends are observed in Lithuania, where nurses express enthusiasm for applying their knowledge to improve care delivery (11).

Career progression is another key motivator. Attaining a master's-level qualification offers a sense of achievement and potential for advancement, though this is tempered by limited recognition and clearly defined roles in some systems (1,18). However, motivation is not solely intrinsic. It is strongly influenced by the broader context, including regulation, remuneration, and role clarity. Without adequate support structures, even the most motivated professionals may feel underutilized and undervalued (31,56).

Recognition and validation of their skills are essential for sustained motivation. In France, for instance, APNs described professional respect and well-defined roles as major contributors to satisfaction (25). In contrast, Lithuanian nurses who completed advanced education often remain in generalist positions, which can be demotivating (9,11).

1.5. Advanced Practice Nursing in Lithuania: Progress, Gaps, and Regional Comparison

The integration of Advanced Practice Nurses (APNs) in Lithuania is at a formative stage, shaped by national healthcare challenges, emerging policy initiatives, and increasing alignment with European trends. While not yet fully institutionalized or formally recognized, advanced nursing roles are gradually being introduced into clinical practice, particularly in primary care, chronic disease management, and home-based services. This section outlines the current status of nursing in Lithuania, highlights recent reforms, and compares regional developments across the Baltic and Nordic countries.

1.5.1. The Current Role of Nurses in Lithuania

Lithuanian nurses primarily work in support roles within physician-led teams, offering direct care, monitoring, and patient education. The profession is historically shaped by hierarchical healthcare structures that limit nursing autonomy. However, growing pressure from demographic changes, physician shortages, and rising chronic disease prevalence is prompting a revaluation of nursing's contribution to the healthcare system (9,10).

While formal APN roles do not yet exist in legal or credentialed terms, nurses are already performing tasks that align with international definitions of advanced practice. These include patient assessments, managing non-communicable diseases, coordinating care, and delivering preventive services—often under physician supervision (44). The Ministry of Health has acknowledged this shift and continues to promote task-shifting policies to empower nurses, particularly in primary care (13).

1.5.2. Policy Efforts and Strategic Planning

A significant step toward recognizing advanced nursing practice came with the 2017 amendment to Lithuania's national health policy, which called for optimizing the health workforce and expanding nursing competencies (37). This was followed by a formal action plan in 2024 to mitigate physician shortages by increasing nurses' roles in consultations, chronic care, and follow-ups (57).

At the same time, academic and professional organizations have begun exploring the structure and feasibility of APN implementation. Jasukaitienė (2022) conducted a study highlighting the perspectives of Lithuanian nursing leaders, who largely support APN integration but emphasize the need for regulation, role clarity, and postgraduate education (11). Likewise, studies by Darginavičienė et al. (2022) show that while nurses are willing to take on extended responsibilities, there remains uncertainty about how the public and other professionals will perceive these new roles (44).

Pilot initiatives—such as those implemented under the Integrated Team-Based Home Care projects—have begun assigning nurses expanded clinical tasks, particularly in community and home settings. These pilots demonstrate that the Lithuanian system is capable of supporting advanced nursing functions, even in the absence of formal APN frameworks (58).

1.5.3. Educational and Credentialing Gaps

Despite progress in policy discussions and pilot programs, Lithuania still lacks an official educational pathway for APNs. While several universities offer master's degrees in nursing, these programs are generally not fully aligned with ICN standards or designed to train nurses for advanced autonomous practice (1). Without a recognized curriculum, nurses are unable to acquire the necessary credentials for formal APN designation.

Calls for standardized postgraduate programs continue to grow. Academic and professional leaders emphasize the need to introduce structured curricula with core APN competencies—such as advanced health assessment, pharmacology, and leadership training. Further collaboration with Nordic institutions, which have more developed APN education models, may help Lithuania accelerate its academic development in this field (11).

1.5.4. Regional Comparison: Nordic and Baltic Countries

Comparing Lithuania to neighbouring countries offers valuable insight into the diverse trajectories of APN implementation. In the Nordic region, countries like Finland, Sweden, and Norway have advanced further in institutionalizing APN roles. These nations have protected titles, formal regulatory structures, and master's-level educational programs aligned with ICN standards (1,55).

For example, in Finland, nurse practitioners function independently in primary care settings, are involved in chronic care management, and participate in leadership and policymaking. APNs in Sweden are similarly empowered, with national frameworks supporting their integration into both hospital and community settings (2,38).

In the Baltic region, however, the pace of APN integration is slower. Estonia and Latvia face challenges similar to Lithuania's—particularly in defining roles, creating regulatory frameworks, and building educational infrastructure. Nonetheless, these countries are gradually introducing advanced nursing models through EU-supported initiatives and inter-country collaboration (1,5).

Lithuania is well-positioned to benefit from regional cooperation. Academic exchange programs, shared competency frameworks, and joint policy discussions could help align APN development with broader European goals. Collaborative benchmarking with Nordic countries may also facilitate the adoption of best practices in regulation, curriculum design, and role deployment (39,59).

1.5.5. Alignment with European and Global Trends

On a broader scale, Lithuania's exploration of APN roles reflects a global trend toward expanding nursing practice to address health workforce shortages and enhance care delivery. The ICN and World Health Organization (WHO) have both emphasized the importance of optimizing the nursing workforce as part of global strategies for Universal Health Coverage and Sustainable Development Goals (6).

Recent evidence from Western Europe, including France, Switzerland, and Spain, shows that countries can successfully integrate APNs even in systems where the model is relatively new (25). These experiences offer practical insights for Lithuania on how to structure policy, engage stakeholders, and demonstrate the value of APNs through outcome-based pilot programs(39,41).

1.6. Summary and Gaps in the Literature

The literature on Advanced Practice Nursing (APN) underscores the pivotal role APNs play in modern healthcare systems. Globally, APNs have been shown to improve patient outcomes, expand access to care, and relieve pressure on overstretched physician workforces (8,60). The integration of APNs varies widely by country, depending on regulatory clarity, educational infrastructure, and interprofessional collaboration (1,6). This review has explored key themes relevant to Lithuania, a country that stands at a crucial turning point in recognizing and institutionalizing advanced nursing roles.

While international benchmarks such as the ICN's guidelines provide a solid framework for defining APN education, regulation, and practice, the adaptation of these models must reflect national

contexts(7). In countries like the US, UK, and Nordic nations, APNs are well-established and supported through formal legislation, protected titles, and robust academic programs (22,25,55). These systems demonstrate that successful APN implementation requires legal support, credentialing pathways, interprofessional alignment, and public trust (5,15).

In contrast, Lithuania's current nursing landscape is characterized by evolving, but still informal, APN-like functions. Nurses increasingly perform advanced tasks, particularly in chronic disease management and community health, yet these responsibilities remain unregulated and unsupported by formal education programs or legal definitions (10,44). Policy documents signal growing support for role expansion, but implementation remains piecemeal and uneven (37).

The regional comparison highlights that Lithuania is not alone in facing these challenges. Other Baltic states and Central-Eastern European countries also grapple with fragmented progress. However, Nordic countries provide a nearby model of success, offering valuable lessons in harmonizing APN education, practice standards, and institutional support (1,5).

Despite the richness of available research, several gaps remain in the literature—particularly in relation to Lithuania. First, there is a lack of empirical data on the outcomes of extended nursing roles in local pilot programs, which hinders evidence-based policymaking. Second, little is known about public and professional perceptions of APNs in the Lithuanian context, an important factor for role legitimacy (11,44). Third, there is limited research on the cost-effectiveness of APN integration in Lithuania's healthcare system, especially in rural and underserved areas (9).

Future studies should focus on evaluating pilot APN initiatives, exploring stakeholder attitudes, and developing a national competency framework in alignment with European standards (39). There is also a need for interdisciplinary collaboration in designing educational programs that prepare nurses for advanced clinical, educational, and leadership responsibilities(1).

In conclusion, Lithuania is well-positioned to formalize APN roles and contribute to the European movement toward more flexible, efficient, and patient-centred care. However, this will require coordinated action across education, regulation, and policy. By learning from both regional peers and global leaders, Lithuania can build a sustainable APN model that meets the country's growing healthcare needs.

2. RESEARCH METHODOLOGY

2.1. Study Design

The qualitative descriptive design was used in this research, using semi-structured interviews to explore in-depth perspectives and experiences regarding the integration of Advanced Practice Nurses into the Lithuanian healthcare system. This design was chosen because it allows flexibility in data collection, provides rich and detailed qualitative data, and is particularly suitable for gaining comprehensive insights into participants' personal experiences, perceptions, and attitudes related to the topic (61).

2.2. Setting and Participants

This study was conducted in healthcare institutions providing emergency care, anaesthesia and intensive care, and primary healthcare services. Interviews were carried out between February 1, 2025, and March 20, 2025.

A purposive sampling strategy was employed to select a total of 12 participants:

6 Advanced Practice Nurses (APNs): Two emergency care APNs, two anaesthesia and intensive care APNs and two primary healthcare APNs

6 Hospital Administrators: Two health institutions directors, two head nurses and two health institutions deputy directors

Participants were specifically chosen due to their direct roles, experience, and insight into the integration and management of advanced practice nursing within their respective institutions. The diversity of participants ensured comprehensive representation and rich qualitative data relevant to the study objectives.

2.3. Recruitment of The Participants

Participants were recruited using purposive sampling (62). Potential participants were identified based on their professional roles, experience, and relevance to the research objectives concerning the integration of Advanced Practice Nurses (APNs) into healthcare settings. Initial contact was made through formal emails and institutional channels, clearly outlining the study's purpose, voluntary participation, confidentiality measures, and participants' rights, including their ability to withdraw at any time without consequence.

Upon expressing interest, participants were provided detailed information about the research objectives, procedures, and ethical considerations. Written informed consent was obtained from each participant prior to conducting the interviews. Efforts were made to accommodate participants' schedules, ensuring convenience, privacy, and comfort during data collection.

Inclusion Criteria of the APN:

- Advanced Practice Nurses (APNs) having advance practice nursing degree in the field of emergency care, anaesthesia and intensive care, or primary healthcare settings.
- Nurses having an active advance practice nursing licence.
- Participants willing and able to provide informed consent and participate in recorded semi-structured interviews.

Exclusion Criteria of the APN:

- Participants not directly involved in the clinical or administrative processes concerning APN integration.
- Were unable or unwilling to provide informed consent or to participate in recorded interviews.

Inclusion criteria of the Hospital administrators:

- Hospital administrators holding positions of director, head nurse, or other managerial roles directly involved in the decision-making related to nursing practice and integration of APNs.
- Participants willing and able to provide informed consent and participate in recorded semi-structured interviews.

Exclusion criteria of the Hospital administrators:

- Participants not directly involved in the clinical or administrative processes concerning APN integration.
- Were unable or unwilling to provide informed consent or to participate in recorded interviews.

2.4. Research Instrument and Data Collection

The primary research instrument used in this study was a semi-structured interview guide, specifically developed to explore the experiences, perceptions, and expectations regarding the integration of Advanced Practice Nurses (APNs) into the Lithuanian healthcare system. The guide was designed in collaboration with the supervisor and consulting professor of this research based on an analysis of evidence-based literature, ensuring alignment with the research objectives and academic rigor.

The interview guide consisted of open-ended questions (n=14 for APNs n=17 for administrators) organized into key thematic areas, including:

- Current professional roles and responsibilities (n=2 for APNs n=2 for administrators)
- Perceived healthcare needs and APN contributions (n=3 for APNs n=3 for administrators)
- Barriers and challenges to APN integration (n=2 for APNs n=4 for administrators)

- Professional motivation and career development (n=2 for APNs)
- Organizational and system-level support (n=2 for APNs n=2 for administrators)
- Expectations for future healthcare delivery models (n=3 for APNs n=6 for administrators)

Two tailored versions of the guide were created for different participant groups:

- One for Advanced Practice Nurses (APNs), focusing on their clinical practice, motivation, and vision for professional development.
- Other for healthcare administrators, addressing institutional strategies, policy considerations, and organizational readiness for APN integration.

All interviews were conducted face-to-face in Lithuanian, recorded with informed consent using a secure research-designated mobile device, and later transcribed verbatim by the researcher. The duration of interviews was from 45-90 minutes. The interview guide was reviewed and refined with input from the thesis supervisor to ensure clarity, coherence, and relevance to the study's aims.

After transcribing the interviews, the participants were coded, and all potentially identifiable data was removed. After transcription, all recordings were deleted. The resulting database was stored on the university's secure file server, and only the researcher had access to it

2.5. Data Analysis

Data analysis was conducted using qualitative content analysis. Initially, all recorded interviews were manually transcribed by the researcher. Transcripts were carefully reviewed multiple times to ensure accuracy and familiarity with the data. The thematic analysis process involved the following stages (63):

Familiarization: Repeated reading of transcripts to understand participants' perspectives thoroughly.

Coding: Relevant segments of text were identified and assigned initial codes based on repeated ideas and concepts directly linked to the research questions.

Categorization and Thematic Analysis: Codes were grouped into broader categories and subcategories, facilitating the identification of main themes and patterns.

Interpretation and Description: Identified themes were interpreted and described, ensuring the participants' perspectives regarding the integration of Advanced Practice Nurses into healthcare settings were accurately represented.

2.6. Research Ethics

To conduct the study permissions was obtained from the administrations of hospitals as well as approval of study protocol and instrument (Protocol Nr. (1.7 E) 150000-KT-21) was obtained from

the Ethics Committee for Scientific Research of the Faculty of Medicine of Vilnius University. The following principles of research ethics were followed during the entire research: respect for personal privacy, confidentiality and anonymity, benevolence, and intention to do no harm to the researched person and principles of justice (64). Participants were explained the purpose of the study, and the importance of their answers was emphasized. In addition, they were informed that the participation in the study is voluntary, and they can withdraw at any stage of research. If they filled in the questionnaire, it was considered that they agree to participate in the study.

3. RESULTS

3.1. Results from Advanced Practice Nurse (APN) Interviews

The qualitative data collected from six Advanced Practice Nurses (APNs) provided rich insight into their current roles, expectations, motivations, perceived barriers, and the envisioned future of APNs in the Lithuanian healthcare system. Thematic analysis revealed ten major themes, presented below. These findings are presented in alignment with the main research questions and highlight critical dimensions of the integration and contribution of APNs in the national healthcare context.

Table 1. Main themes and subthemes identified from APNs interview

Theme	Sub-theme
Current professional roles and responsibilities	Formal role remains as General Practice Nurse despite advanced qualifications
Current professional roles and responsibilities	Gradual shift in physician perception of nurse capabilities
Perceived healthcare needs and APN contributions	Addressing diagnostic delays, limited test access, and chronic disease management
Perceived healthcare needs and APN contributions	Reducing waiting times and enhancing patient access, especially in rural areas
Barriers and challenges to APN integration	Lack of legal authority and restrictive policies
Barriers and challenges to APN integration	Resistance from older-generation healthcare professionals and lack of public awareness
Professional motivation and career development	Desire for greater autonomy and recognition of clinical expertise
Professional motivation and career development	Decline in motivation due to limited system-level support
Organizational and system-level support	Need for mentorship, educational programs, and consultation spaces
Organizational and system-level support	Importance of management and policy backing for APN roles
Expectations for future healthcare delivery models	APNs as public health leaders and contributors to preventative care
Expectations for future healthcare delivery models	Integration leading to more responsive, flexible, and sustainable health systems

3.1.1. Current Roles and Evolving Responsibilities

The APNs described a wide array of responsibilities in their current practice, including delivering preventive care, administering immunizations, performing home visits, and coordinating care with other professionals. Despite their qualifications and experience, most participants stated that their formal roles remain confined to those of General Practice Nurses (GPNs).

"After completing my master's studies, my role has not changed... I still work as a General Practice Nurse, with the same responsibilities, but now with broader knowledge." (Nurse 6)

Others noted a slow but noticeable shift in their responsibilities, where physicians are gradually beginning to appreciate and rely on nurses' knowledge and perspectives.

"In my daily practice, my main role is still primarily following physicians' orders and assisting them. However, I have noticed that doctors' attitudes are gradually changing..." (Nurse 3)

This ongoing transition illustrates both the stagnation and the potential for growth in the professional scope of APNs, particularly in settings where systemic support is lacking.

3.1.2. Anticipated Impact of APN Integration

Participants were unanimous in their belief that APN integration would significantly enhance their roles, offering greater independence in clinical decision-making, patient assessment, and chronic disease management. There was a strong belief that such integration would not only benefit individual nurses but also the wider healthcare system.

"With the integration of Advanced Practice Nurses into the healthcare system, my role will become more autonomous, with greater responsibility and influence in patient care decision-making." (Nurse 1)

The APN role was envisioned as bridging gaps in accessibility, especially in rural and underserved regions, while supporting the redistribution of tasks traditionally handled by physicians.

"We could manage less difficult patients... APNs could take over home visits and even handle emergency patients with flu-like symptoms." (Nurse 2)

Such expanded responsibilities are seen as a way to increase efficiency, reduce waiting times, and ensure that more complex cases receive appropriate attention from physicians.

3.1.3. Challenges in Current Practice Addressable by APNs

Participants reported several systemic and operational barriers that limit effective care delivery. Many challenges—such as delayed diagnostic decisions, the inability to prescribe or order routine tests, and long waiting times—were seen as solvable through expanded APN roles.

"We can't order certain tests... patients must be sent to the GP just to order harmless tests like ferritin or vitamin D." (Nurse 2)

"If a patient comes in for a blood transfusion, an APN could order it without waiting for a physician... saving valuable time." (Nurse 3)

Several nurses also stressed that APNs could act swiftly in acute situations, preventing unnecessary delays and hospitalizations.

"There are cases where a nurse's assessment would be sufficient to provide needed services, but due to lack of legal authority, we are limited." (Nurse 6)

3.1.4. Healthcare Needs Addressed by APNs

The nurses identified major public health and systemic challenges that could be addressed through the inclusion of APNs. These included access to care in remote areas, increasing numbers of patients with chronic conditions, and insufficient patient education.

"APNs could monitor patients with chronic diseases... and implement health promotion programs that reduce disparities and improve overall public health." (Nurse 1)

"In the future, APNs could even replace GPs in remote areas where there are staff shortages." (Nurse 2)

Other suggestions included structuring APN roles around chronic disease panels, where each APN would be responsible for the long-term management of a specific patient group.

3.1.5. Motivations to Pursue the APN Role

Motivations were both personal and professional. Participants were driven by a desire to provide holistic, patient-centred care and to apply their expanded clinical knowledge in a more autonomous setting.

"It's thrilling when your patients come back to you instead of registering with the GP—it shows trust and independence." (Nurse 2)

"I believe that advanced practice functions allow nurses to fully realize their potential—not just following doctors' orders, but actively participating in decision-making, prevention, and education." (Nurse 1)

Some nurses described internal barriers to motivation, particularly in settings where their potential remains underutilized.

"At the moment, I feel a significant drop in motivation because... I don't see any real prospects for APNs in Lithuania due to lack of regulation and support." (Nurse 6)

3.1.6. Professional Development and Career Satisfaction

Nurses emphasized that APN roles promote continuous learning and create opportunities for advancement into teaching, management, and research roles. They expressed a strong sense of purpose in being able to impact patient care directly.

"The APN role opens new paths in clinical practice and leadership. It's empowering to see how your knowledge can shape outcomes." (Nurse 5)

Nonetheless, they also stressed that without institutional recognition and proper job structures, the benefits of advanced education remain theoretical.

"To enhance professional development, more APN positions need to be created, and management must trust in APN competencies." (Nurse 3)

3.1.7. Barriers to APN Integration

Numerous challenges were identified that hinder the integration of APNs, including unclear legal frameworks, scepticism from colleagues, and lack of awareness among the public.

"There's still a lack of legal frameworks, mistrust from doctors, and unclear role definitions." (Nurse 1)

"I see a negative attitude from older-generation nurses and doctors... and scepticism from patients." (Nurse 6)

Structural barriers like restrictive laws and inadequate compensation models were also noted.

"Laws in some cases are very restrictive... they should change to give more freedom to APNs." (Nurse 2)

3.1.8. Systemic Changes Needed for APN Integration

Participants proposed clear and actionable changes necessary for successful integration. These included:

- Establishing legal and regulatory clarity
- Developing APN job descriptions across all levels of care
- Creating financial incentives and reimbursement systems
- Launching public education campaigns about APN roles

"First, a clear legal framework must be established to define APN competencies... this would avoid confusion and ensure safe, high-quality service delivery." (Nurse 1)

"There needs to be clear regulations... and a defined set of job requirements for APN positions." (Nurse 4)

3.1.9. Support and Resources Required

Support systems were seen as vital, especially during the early implementation phase. Nurses stressed the need for mentorship, access to continuous education, administrative support, and physical infrastructure like consultation rooms.

"Support from administration is very important, and collaboration with GPs is also essential." (Nurse 2)

"Educational institutions should provide practical training and ensure programs meet real-world demands." (Nurse 5)

The role of healthcare institutions in mentoring and promoting APNs was emphasized as a critical factor in successful transition.

3.1.10. Expected Impact on the Healthcare System

All participants agreed that APNs would play a crucial role in improving the healthcare system's responsiveness, especially amid physician shortages and increasing chronic disease prevalence.

"APNs could significantly improve patient health outcomes... they can dedicate more time to education and consultations." (Nurse 5)

"They would improve system flexibility, accessibility, and sustainability." (Nurse 1)

They envisioned APNs not only as care providers but also as educators, policy influencers, and leaders in public health.

"APNs can become not just care providers, but also leaders in public health... their potential is still underutilized in Lithuania." (Nurse 1)

These findings demonstrate the readiness, motivation, and clarity among Lithuanian APNs about their role in transforming healthcare delivery. While challenges remain, there is a clear consensus on the need for institutional, legal, and cultural change to unlock the full potential of APNs in the Lithuanian health system.

3.2. Results from Healthcare Administrators interviews

The qualitative data collected from six Advanced Practice Nurses (APNs) and six healthcare administrators in Lithuania revealed diverse and complementary perspectives on the current role of nurses, the anticipated impact of APN integration, systemic challenges, and long-term visions for change. This chapter presents the administrators' perspectives in alignment with the thematic structure applied to the nurses' responses to facilitate comparison and thematic clarity.

Table 2. Main themes and subthemes identified from administrators' interviews

Theme	Sub-theme
Current professional roles and responsibilities	APNs understood as independent decision-makers and care providers
Current professional roles and responsibilities	Capability to prescribe, refer, and manage chronic conditions
Perceived healthcare needs and APN contributions	Relieving physician workload and improving care access
Perceived healthcare needs and APN contributions	Enhancing patient care continuity, especially in underserved areas
Barriers and challenges to APN integration	Legal ambiguity, unclear scope, and interprofessional resistance
Barriers and challenges to APN integration	Public misunderstanding and cultural resistance in rural areas
Professional motivation and career development	Support for APNs as a modern evolution of skilled nursing practice
Organizational and system-level support	Clear job roles, institutional support, fair compensation
Organizational and system-level support	Need for national legislation, education campaigns, and structural planning
Expectations for future healthcare delivery models	Improving system efficiency and expanding care access
Expectations for future healthcare delivery models	Phased integration, increased public trust, and interdisciplinary cooperation
Expectations for future healthcare delivery models	Defined success as clarity, autonomy, and measurable health outcomes

3.2.1. Understanding of the Advanced Practice Nurse (APN) Role

Administrators expressed a generally clear and supportive understanding of the APN role. They emphasized APNs' broader clinical competencies, capacity for independent decision-making, and potential to bridge gaps between physicians and general practice nurses. One administrator viewed the APN as a new type of healthcare professional, not merely an assistant but someone capable of managing patients autonomously.

"The APN role is important... a specialist with broader competencies, having sufficient knowledge and skills to examine patients, make decisions, and act independently." (Administrator 1)

"They work independently, in separate offices from doctors, consulting physicians only in emergency situations." (Administrator 4)

"I would say advance practice nurse is a highly trained nurse with advanced clinical skills and the ability to work independently in certain areas, such as diagnosis, prescribing, and chronic disease management" (Administrator 6)

Others reinforced this vision by highlighting that APNs could take over various tasks traditionally performed by physicians, such as issuing prescriptions, ordering and interpreting tests, and referring patients to specialists.

"APNs could support the doctor, prescribe medications, order tests, interpret results, and write referrals." (Administrator 3)

3.2.2. Perceived Contribution of APNs to Patient Care

Administrators uniformly agreed that APNs could make substantial contributions to patient care, particularly by relieving physician workload and improving access to healthcare services. They envisioned APNs as key contributors to both acute and chronic patient management.

"They would relieve the burden on doctors, take over part of their functions, and ensure faster access to care." (Administrator 1)

"In our institution... APNs would reduce the workload of both doctors and nurses and should be able to provide many services independently." (Administrator 3)

Some highlighted their role in addressing care gaps when doctors are unavailable, especially in rural or underserved regions.

"In outpatient clinics, it's nearly impossible to get doctors to work. This is another niche for APNs—to manage routine cases and refer difficult ones." (Administrator 4)

These reflections underscore the potential for APNs to expand healthcare system capacity without compromising care quality.

3.2.3. Areas of Significant Impact

When asked about specific areas or departments where APNs could have the greatest influence, administrators pointed to primary healthcare, chronic disease management, outpatient services, emergency rooms and even anaesthesiology.

“At the primary care level... APNs could independently take over a large share of work, especially in chronic disease management.” (Administrator 5)

“I think APNs would be especially effective in family medicine departments.” (Administrator 3)

“Especially in primary care, emergency departments, and home-based care programs APN’s can have significant impact in improved and timely care.” (Administrator 6)

This broad applicability suggests APNs could help optimize patient flow and improve outcomes across care levels, provided the system enables their full integration.

3.2.4. Healthcare Needs Addressed by APNs

The healthcare system in Lithuania faces multiple pressures, including rising chronic illness rates, physician shortages, and regional disparities. Administrators believed APNs are uniquely positioned to help alleviate these challenges.

“Independent consultations, prescription renewals, monitoring of patients with multiple chronic conditions—APNs could cover all of these needs.” (Administrator 1)

“The most urgent needs are related to physician shortages, particularly in regional hospitals, and the growing burden of chronic diseases. APNs could help address all these issues.” (Administrator 6)

Administrators also emphasized the importance of preventive health initiatives and patient education, both of which fall naturally within the scope of advanced nursing practice.

However, there was concern over the current ambiguity in legal definitions of the APN role.

“Currently, the law defines the role very broadly but without clarity. That’s just my opinion.” (Administrator 3)

3.2.5. Impact on Organizational Efficiency and Outcomes

Administrators highlighted APNs’ potential to increase healthcare delivery efficiency by handling routine cases independently and allowing physicians to focus on complex cases.

“If APNs handle straightforward consultations independently, it will speed up access to specialists for urgent or complex cases.” (Administrator 5)

Some cautioned that the effect on patient wait times would depend on how extensively APNs are implemented.

“If there were at least four APNs in a large facility, yes—it would make a difference. But one APN might not change much.” (Administrator 3)

Nonetheless, the overall sentiment was that APNs would improve service coordination and responsiveness.

3.2.6. Resources, Funding, and Integration Support

Successful integration requires systemic and institutional support. Administrators emphasized the need for clear legal definitions, proper workplace setup, access to modern tools, and appropriate salary structures.

“First, clearly define duties, rights, and responsibilities, and update the legal framework.” (Administrator 5)

“Support from hospital administration is essential, along with ministerial orders and clear job roles.” (Administrator 3)

Financial sustainability was a recurrent concern. While APN roles are seen as cost-effective in the long run, initial implementation and funding strategies remain unresolved.

“Maintaining an APN position would cost less than a family doctor or specialist... funds could be used for more diagnostics and tools.” (Administrator 5)

3.2.7. Anticipated Challenges

Key challenges included lack of trust from existing medical staff, unclear regulations, and public perception. Resistance could arise from both physicians and general nurses if roles and responsibilities are not clearly communicated.

“Doctors may resist if they’re held accountable for APN errors. Nurses may resist due to wage gaps.” (Administrator 5)

“The biggest challenge will be role clarity—differentiating APNs from general nurses and physicians.” (Administrator 6)

The need for public education was repeatedly stressed, particularly in rural areas.

“In rural areas, it will be different. Patients still want to see 'the doctor.' That belief will take time to change.” (Administrator 4)

Participants suggested that trust would grow once patients experience the competence of APNs firsthand.

3.2.8. Collaboration and Interdisciplinary Teamwork

APNs were envisioned as collaborative partners in care, working with physicians, lifestyle specialists, and other healthcare professionals.

“The APN can create a care plan with the family doctor, monitor the patient’s indicators, and coordinate with the team.” (Administrator 2)

Interdisciplinary trust and communication were viewed as essential for successful integration. Some administrators proposed structured collaboration strategies, including joint training and informal team building.

“Unite everyone into one team to work cooperatively... training or after-work events could improve relationships.” (Administrator 3)

Others suggested a phased approach—beginning with shared tasks and transitioning toward independent APN-led care.

3.2.9. Long-Term Vision and Impact on the Healthcare System

Most administrators expressed optimism that APNs would contribute meaningfully to the future of Lithuanian healthcare. Their introduction was seen as inevitable and essential for improving service delivery, especially in response to aging populations and rising chronic illness.

“APNs will be employed according to need and will take over tasks from family doctors and GPNs... access to services should improve markedly.” (Administrator 2)

“APNs are practically like doctors... with time, the population will accept and even prefer them for certain cases.” (Administrator 4)

Administrators highlighted the importance of professional respect, visibility, and long-term policy support to sustain these roles.

3.2.10. Defining Successful APN Integration

Success was defined by clarity, trust, and autonomy. Administrators felt that legal certainty, fair compensation, public education, and institutional support were key pillars of sustainable APN integration.

“Success means allowing each specialist to work fully within their competencies and have autonomy.” (Administrator 2)

“Public education about the new service is key.” (Administrator 1)

“It would mean having a defined and recognized APN role, supported by national legislation, funded training programs, and measurable outcomes.” (Administrator 6)

Some referenced the historical role of feldshers and nurses with extended responsibilities as a precedent, suggesting that APNs represent a formal and modern evolution of this concept.

“Compared to other countries, we’re far behind... APNs are a modern version of feldshers— independent, community-focused, and practical.” (Administrator 3)

These expanded findings illustrate a cautious yet hopeful stance from healthcare administrators. They largely align with the aspirations of APNs themselves and provide clear strategic directions for successful integration—emphasizing collaboration, regulation, education, and structural investment.

Table 3. Comparative Perceptions of APN Integration

Category	Nurse Perspective	Administrator Perspective
Understanding of APN Role	Nurses see themselves as still operating under general roles, but anticipate greater autonomy and clinical responsibility with integration.	Administrators describe APNs as independent clinicians with the potential to manage patients and make autonomous decisions.
Contribution to Healthcare	Nurses believe APNs will enhance chronic care, reduce wait times, and improve accessibility, especially in rural areas.	Administrators view APNs as relieving doctor workload and expanding patient access, especially in underserved settings.
Barriers to Integration	Nurses emphasize lack of legal frameworks, resistance from peers, and undefined roles as key barriers.	Administrators point to regulatory ambiguity, interprofessional skepticism, and funding as major obstacles.
Support and Resources Needed	Nurses call for mentorship, APN-specific training, and policy-level support for effective integration.	Administrators highlight the need for clear job definitions, adequate funding, infrastructure, and administrative support.

Future Vision and System Impact	Nurses envision themselves as leaders in public health, educators, and autonomous care providers.	Administrators foresee a shift in care models, enhanced efficiency, and APNs filling roles in various departments like primary care and emergency.
Definition of Successful Integration	Legal recognition, public awareness, and structured APN positions aligned with their training.	Defined competencies, autonomy, measurable outcomes, and professional respect.

DISCUSSION

This study provides new insights into the perceptions of Advanced Practice Nurses (APNs) and healthcare administrators regarding the integration of APNs into Lithuania's healthcare system. The findings resonate with and expand upon international literature, illustrating both shared and context-specific challenges and opportunities. This section discusses key themes from the results in relation to recent and relevant studies.

Role Understanding and Scope of Practice: Evolving but Constrained

While the APNs in this study expressed readiness to work more autonomously, many remained confined to the duties of General Practice Nurses. This is not unique to Lithuania. A 2021 study by Hill, Diamond-Fox, and Mitchell found that in the UK, the expansion of APN roles in community care settings was often hampered by unclear role definitions and inconsistent implementation across institutions (30). Similarly, Beil-Hildebrand and Smith (2022) noted that in German-speaking countries, APN role development is often constrained by hierarchical healthcare cultures and lack of role clarity (23).

In Lithuania, administrators acknowledged APNs' potential but stressed the absence of clear legal and organizational frameworks. This aligns with global observations by the International Council of Nurses, which emphasize that the absence of supportive legislation and institutional policies is a significant barrier to the development of APN practice (6).

Addressing Healthcare System Needs: Global and National Alignment

Both participant groups identified physician shortages, chronic disease burdens, and limited access—especially in rural areas—as key healthcare challenges. These align with the Lithuanian Ministry of Health's "Action Plan to Reduce the Shortage of Doctors" (2024), which highlights the importance of workforce diversification (13). APNs are strategically positioned to fill service gaps and improve access, as demonstrated in France (Devictor et al., 2023) and Spain (Rivera et al., 2024), where APNs were successfully deployed in underserved areas (25,39).

Furthermore, the emphasis on preventive care and chronic disease management in this study mirrors findings from a recent qualitative study on Spanish APNs, which highlighted their value in educating patients and monitoring chronic conditions (36).

Institutional Readiness and Support Structures: Conditions for Success

Administrators in this study consistently called for clearer job descriptions, legal regulations, and fair remuneration systems. These conditions are mirrored in the literature as fundamental to sustainable integration. In a multi-site study in France, Toniolo et al. (2024) found that successful APN role

implementation depended on policy alignment, organizational readiness, and interprofessional collaboration (54).

In a broader European context, Unsworth et al. (2024) emphasized that structured career pathways, adequate funding, and leadership support were essential enablers for APNs. Similar conditions were echoed in this study, with administrators citing the need for tools, infrastructure, and mentoring systems (5).

Collaboration and Interprofessional Trust: A Work in Progress

Effective collaboration between APNs and physicians was identified as both necessary and challenging. Concerns around trust, role overlap, and accountability were noted. This reflects findings by Lee et al. (2023), who explored facilitators and barriers to clinical supervision in APN practice and highlighted the importance of defining interprofessional roles early in the implementation process (55).

Moreover, a European scoping review by Torrens et al. (2020) found that physician resistance and lack of team integration were recurrent barriers to APN effectiveness, suggesting that cultural change within institutions is just as important as policy reform (40).

Public Awareness and Patient Perception: A Critical Missing Link

Both nurses and administrators acknowledged that public understanding of APN roles in Lithuania is minimal. A national survey by Darginavičienė et al. (2022) confirmed that public awareness of APN competencies is low, with many patients unsure of when and why they might consult an APN (44).

By contrast, in the UK and parts of Scandinavia, targeted public health campaigns and structured APN roles have improved trust and utilization (1,53). Lithuanian stakeholders may need to follow similar strategies to shift public expectations and improve the visibility of APN contributions.

Professional Identity, Motivation, and Role Sustainability

Lithuanian APNs in this study showed strong intrinsic motivation to advance their roles despite systemic limitations—a finding consistent with Jokiniemi et al. (2015), who observed that APNs in Finland were driven by professional identity and a desire to deliver higher-quality care (42).

However, sustained motivation requires systemic recognition. As noted by Colson et al. (2021) in France, APNs experience role fatigue and frustration when implementation is slow and institutional support lacking (24). This mirrors one participant’s reflection in this study: “At the moment, I feel a significant drop in motivation... I don’t see any real prospects for APNs in Lithuania.”

Looking Ahead: A Path Forward for Lithuania

The discussion demonstrates that Lithuania is not alone in its APN integration challenges but must act intentionally to avoid common pitfalls. Drawing from successful international examples, the following recommendations emerge:

- **Clarify legal and institutional APN roles** through national legislation and local protocols (6,25).
- **Invest in public education and professional awareness campaigns** to promote acceptance (44).
- **Establish collaborative frameworks and clinical supervision models** to ensure effective interprofessional practice (55).
- **Provide financial incentives and career progression opportunities** to retain and motivate APNs (5).
- **Monitor and evaluate pilot implementations** to guide national scale-up, as done in France and Spain (39,54).

CONCLUSIONS

This study demonstrates that both APNs and healthcare administrators in Lithuania perceive the integration of Advanced Practice Nurses as a necessary evolution of the health system. From both groups' perspectives:

1. **There is a clear and growing need** for APNs, particularly to support primary care, reduce physician workload, manage chronic diseases, and improve care access in underserved areas.
2. **APNs are highly motivated** to contribute their skills and take on expanded responsibilities. However, this motivation risks being undermined by the absence of institutional pathways, recognition, and role clarity.
3. **Barriers to integration** are primarily structural and cultural, including unclear legislation, lack of funding, limited public awareness, and resistance from existing staff. These challenges are surmountable through policy reform, public engagement, education, and investment in collaborative care models.

RECOMMENDATIONS

For Policy Makers and Healthcare Institutions

Nursing Practice: Develop and implement national legislation that clearly defines the APN role, scope of practice, and autonomy. This should include licensing procedures, responsibility boundaries, and clinical authority.

Integrate APNs into Healthcare Strategy: Position APNs as a strategic solution in addressing physician shortages, especially in underserved and rural areas, by including them in national health workforce planning.

Nursing Education: Develop standardized APN educational programs at the master's level, aligned with ICN guidelines and European Union standards.

Raise Public and Professional Awareness: Launch public education campaigns to inform communities about the role and competencies of APNs and build trust in nurse-led care. Include informational sessions for physicians and healthcare staff to reduce scepticism.

For Advanced Practice Nurses

Advocate for Role Recognition: APNs should actively participate in discussions with management, policymakers, and professional organizations to advocate for their role and showcase their contributions.

Professional Development: Stay updated with clinical guidelines, leadership training, and health policy to strengthen confidence, credibility, and readiness for autonomous roles.

Nursing Research: Conduct national-level studies to evaluate the effectiveness, safety, and patient satisfaction related to APN-led care in Lithuania. Data should include health outcomes, service utilization, and economic impact.

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APPENDICES

Appendix 1.

SEMI -STRUCTURED INTERVIEW QUESTION PLAN

I am Ingrida Qamar, Vilnius University Medical faculty, advanced practice nurse program master student. I am conducting a research about integration of advanced practice nurses into Lithuanian health system: need and motivation. Please allow 60-70 minutes time to answer my questions. Our conversation will be recorded. Your anonymity will be maintained during the analysis of the research results. The research data will be used in the preparation of the master's thesis. When conducting research, I follow the provisions of the research ethics code.

Please confirm again, do you agree to participate in the study?

FOR NURSES

1. Understanding Current Roles and Experiences, Perceived Need for Advanced Practice Nurses

- Can you describe your current role and responsibilities within your organization?
- How do you see your role evolving with the integration of APNs into the Lithuanian health system?
- What challenges have you faced in your nursing practice that you think APNs could help address?
- In your opinion, what are the main healthcare needs in Lithuania that APNs could address?
- How do you think APNs could impact patient outcomes or the overall quality of care?

2. Motivations and Interest in Advanced Practice Nursing, Perceived Challenges and Barriers to APN Integration

- What motivates you to pursue or support advanced practice roles within the nursing profession?
- How do you think the integration of APNs could enhance your own professional development and career satisfaction?
- What challenges do you foresee with integrating APNs into the Lithuanian health system?
- What would need to change within the current healthcare system to successfully integrate APNs?

3. Support and Resources for Successful APN Integration, Expectations and Potential Impact on the Health System

- What support or resources do you think are necessary for APNs to succeed in the healthcare system?

- How could healthcare organizations, educational institutions, or policymakers better support nurses in transitioning to APN roles?
- What impact do you expect the integration of APNs to have on the Lithuanian health system as a whole?
- What would a successful integration of APNs look like to you?
- Is there anything else you'd like to add about how APNs could contribute to improving healthcare in Lithuania?

FOR MANAGEMENT

1. Perception of Advanced Practice Nursing Role

- What is your understanding of the role of Advanced Practice Nurses (APNs) in the healthcare setting?
- How do you perceive the potential contributions of APNs to patient care within this hospital/primary health care centre?
- Are there specific areas or departments where you feel APNs could make a significant impact?

2. Need and Value of APN Integration

- In your view, what are the main needs in the healthcare system that APNs could help address?
- How do you think integrating APNs could contribute to meeting organizational goals, such as improving patient outcomes and ensuring patient safety or reducing wait times?

3. Implementation, Support, Cost, Funding, and Financial Considerations

- What are some of the key resources or support mechanisms needed for the successful integration of APNs?
- What challenges do you anticipate in integrating APNs into your current organizational structure?
- Are there specific changes to health policies, staffing models, or organizational practices that you think would facilitate APN integration?
- How would the integration of APNs affect the hospital's budget or resource allocation?
- Do you foresee any financial challenges or benefits associated with employing APNs?
- Are there funding or reimbursement considerations that need to be addressed for the sustainable integration of APNs?

4. Expectations for Interdisciplinary Collaboration

- How do you envision APNs working with physicians and other healthcare professionals within your hospital?

- Do you anticipate any challenges or resistance in fostering collaboration between APNs and other staff?
- What strategies would you consider enhancing interdisciplinary collaboration involving APNs?

5. Long-term Vision and Impact on Healthcare Delivery

- How do you see APN integration shaping the future of healthcare delivery in this hospital or in Lithuania more broadly?
- What would a successful integration of APNs look like from your perspective?
- Is there anything else you'd like to add about the potential impact or value of APNs in the Lithuanian healthcare system?



**VILNIAUS UNIVERSITETO
MEDICINOS FAKULTETO
MOKSLINIŲ TYRIMŲ ETIKOS KOMITETAS**

POSĖDŽIO PROTOKOLAS

2025-01-17 Nr. (1.7 E) 150000-KT-21
Vilnius

El. balsavimas vyko 2025 m. sausio 15-17 d.

Posėdžio pirmininkas VU MF SMI Slaugos katedros vadovė prof. dr. -Natalja Istomina

Posėdžio sekretorius VU MF SMI vyr. specialistė vyr. specialistė Greta Zambžickaitė

Posėdyje dalyvavo: VU MF SMI Slaugos katedros asist. dr. Aldona Mikaliūkštienė, VU MF SMI Visuomenės katedros asistentė. dr. Jelena Stanislavovienė, VU MF SMI Sveikatos etikos, teisės ir istorijos centro docentė dr. Aistė Bartkienė, VU MF SMI Reabilitacijos, fizinės ir sporto medicinos katedros docentė dr. Aurelija Šidlauskienė, VU MF SMI Optometrijos katedros docentas dr. Saulius Galgauskas, VU MF KMI Akušerijos ir ginekologijos klinikos docentė dr. Diana Bužinskienė, VU MF KMI Anesteziologijos ir reanimatologijos klinikos jaun. asistentas Vaidas Vicka, VU MF BMI Anatomijos, histologijos ir antropologijos katedros lektorė Rūta Morkūnienė, VU MF BMI Fiziologijos, biochemijos, mikrobiologijos ir laboratorinės medicinos katedros asistentė. dr. Inga Bikulčienė, VU MF Odontologijos instituto docentė dr. Rasmūtė Manelienė.

Kvorumas priimti sprendimus buvo, nes posėdyje dalyvavo 11 narių iš 11 .

16. SVARSTYTA Išplėstinės praktikos slaugos magistrantūros studijų programos antro kurso studentės Ingridos Qamar baigiamojo darbo tyrimo protokolo ir instrumento vertinimas.

NUTARTA. Studentės Ingridos Qamar baigiamojo darbo tyrimo protokolo ir instrumento turinys neprieštarauja vykdomojo tyrimo etikos normoms ir VU MF Mokslinių tyrimų etikos komitetas pritaria tyrimo instrumento naudojimui).

VU MF Mokslinių tyrimų etikos komiteto
pirmininkė

prof. dr. Natalja Istomina

Posėdžio sekretorė

Greta Zambžickaitė