


ORIGINAL ARTICLE

Catalysts for change: A qualitative study of middle managers' perception of nursing professional competence in primary healthcare

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Abstract

Aim: This study aims to explore middle managers' perception of nursing professional competence within the Norwegian primary healthcare service, a sector vital for managing complex patient needs.

Design/Methods: Semi-structured interviews were conducted with four middle managers across different municipalities in Norway. Qualitative content analyses, following Graneheim and Lundman, were used for analysing the transcription of the interviews and the data collected.

Findings: The qualitative content analysis revealed three main themes: the significance of advanced competence, challenges related to competence development and the necessity for defining advanced competence. The findings indicate that middle managers recognise the importance of advanced nursing competence in providing comprehensive patient care, notwithstanding challenges in manpower and competence enhancement.

Conclusion: This research underlines the significance of investing in increased competence and improved management in primary healthcare and offers valuable insights for healthcare policy and practice to enhance patient care.

KEYWORDS

competence development, middle managers, nursing professional competence, patient care, primary healthcare

INTRODUCTION

The Norwegian primary healthcare faces challenges including an increasing number of frail and multi-morbid patients [1] and manpower and competence issues [2], and the need for robust solutions becomes increasingly pertinent. The healthcare service is responsible for providing and coordinating healthcare services; thus, its

efficiency is paramount [3, 4]. Proposed solutions by the Norwegian Health authorities to address these challenges include increased competence, improved management and better team organisation [2, 4]. At the core of healthcare is the patient, around whom all elements revolve and who underscores the necessity for the ongoing evolution of primary healthcare services. To ensure care that is holistic and person-centred, it is imperative

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to respect and incorporate the values, desires, cultural background and life narratives of each patient. These mandates maintaining acuity, staying abreast of professional developments, and possessing the requisite competence to effectively address the diverse needs of patients [5]. Crucial to these improvements is the advanced nursing competence and leadership, as they are instrumental for fostering a culture of patient safety [6, 7] and delivering high-quality care.

Modern nursing practices require proactive engagement with patients at risk of developing diseases with a focus on health promotion and preventive measures [2]. This shift from the traditional nursing role [8] aims to ensure early interventions in primary healthcare settings, thereby enhancing patient safety by reducing unnecessary treatments, readmissions and polypharmacy. According to Benner's [9] model of skill development in nursing, nurses progress through five levels of skill development, starting as a novice and advancing to become advanced beginners, competent, proficient and expert. This evolution in nursing competence reflects the profession's commitment to delivering high-quality patient care and improving healthcare outcomes. Reaching the levels of "proficient" and "expert" propels a nurse into the realm of advanced nursing competence, characterised by a deep holistic understanding, a keen ability to recognise symptoms and intuition honed through experience.

Competence at this level encompasses skills at an advanced level, which include patient care needs assessment, nursing activities, multi-professional teamwork and management in a culture of learning and care, described by Nieminen et al. [10] as advanced nursing competence. Nurse practitioners (NPs) are prime examples of this advanced competence, boasting expanded knowledge in clinical assessment, decision-making, health competence, patient education and supervision, alongside professional management and coordination, and innovation [11]. It is important to recognise that although NPs showcase advanced competence, it is equally crucial to acknowledge that, like regular nurses, new NPs begin their journey as novice in their new roles. Building upon a foundation of in-depth specialist knowledge in autonomy, physiology, disease theory and pharmacology [12], NPs navigate the intricacies of patient care with the use of their ethical characteristics and clinical competence to deepen their understanding of the patient's health situation in a holistic and person-centred way. Reviews of relevant literature summarise that NPs managing chronically ill patients lead to positive outcomes, including improvements in functional status, reductions in hospitalisations and mortality rate, and increased satisfaction among patients, relatives and healthcare personnel [13, 14]. Such positive outcomes extend even to acute and critical situations [15]. Overall,

NPs contribute to more holistic, person-centred care and patient safety [12].

To enhance competence within primary healthcare municipalities, it is crucial to identify needs and determine effective application of necessary competencies [16, 17]. The hierarchical nature of the healthcare system necessitates managers, serving as intermediaries between national and local levels, to maintain a unified understanding of patient safety and treatment. Leadership is a pivotal factor in illustrating the link between how safety-related tasks are prioritised, the organisational structure and culture supporting these tasks. The critical aspect of leadership, particularly in the context of patient safety, often becomes apparent following a serious adverse event [7]. This notion is highlighted by two significant projects: the EU funded project "The Quality and safety in European by Research" (QUASER) [18] and the Norwegian project "Improving Quality and Safety in Primary care – Implementing a Leadership Intervention in Nursing Homes and Homecare" (SAFE-LEAD) [19]. These initiatives underscored the importance of transformational leadership in patient safety, a connection further backed by the recent studies in the Norwegian municipal health service, such as those by Ree and Wiig [20] and Seljemo et al. [21]. Both studies demonstrate the correlation between transformational leadership and patient safety culture in Norwegian home care services and nursing homes, respectively.

The Norwegian healthcare system can be divided to three, national, regional and municipal, with managers operating across all three levels. It consists of managers on different levels, with different responsibilities, among these are the middle managers. Middle managers within the primary healthcare play a vital role in the Norwegian primary healthcare, overseeing the daily operations and bridges the communication between national, regional and municipal levels. They manage the staff, allocate resources and ensure services are efficient and aligned with organisational goal. Tasked with recruitment, competence development and ensuring the organisation meets its objectives with requisite personnel, they facilitate operations by defining values, liaising with higher management and interacting directly with the healthcare staff. A systematic approach, involving all organisational levels, is essential for competence development [22], which includes ongoing evaluation and improvements anchored in top management [23]. It is crucial for managers, RNs and other healthcare personnel to possess necessary competencies to manage complex patient conditions in primary healthcare services and undertake new tasks [2, 4].

Little research has been conducted on middle managers' perceptions of nursing professional competence in municipalities, and their role in recruitment and

competence development is essential for ensuring high-quality patient care. This study aims to explore middle managers' perceptions of the need for nursing professional competence within the Norwegian primary healthcare.

DESIGN AND METHODS

Design

In this study, a descriptive design with a qualitative approach was utilised to collect data. Semi-structured individual interviews were conducted with middle managers from the Norwegian primary healthcare sector, specifically from nursing homes and home health nursing.

Participants and setting

The setting of middle managers within Norwegian primary healthcare was chosen for its critical role in connection operational functions with strategic objectives across varied municipal structures. By focusing on middle managers, the study aimed to delve into their pivotal responsibility of translating organisational objectives into actionable plans at the frontline level. While recognising the diversity in municipal structures, it is imperative to note that common challenges persist across institutions. The study involved four middle managers employed at four different municipalities and institutions in primary healthcare. Three of the participants were female, and one was male. All participants had a bachelor's degree in nursing, and three had pursued further education in the nursing profession. One of the middle managers had a Registered Nurse (RN) with a master's degree in NP employed, while another of the middle managers had an RN currently doing a master's degree to become a NP. The remaining two participants did not have any NP as part of their workforce. The institutions included home nursing and home healthcare, representing different areas and sizes.

Recruitment

To establish contact with potential participants, an email was sent to various municipalities and institutions. The first contact was established with the top management of the respective municipals. However, for five institutions the institution managers were contacted directly, via email, with the top management of their respective municipals receiving a copy. The email provided comprehensive details about the study's aim, the significance

of participation and the reason for reaching out. It contained a declaration of voluntary participation, outlining the study's conductors, the secure storage of personal information and data, the nature of participation and written consent with the option to withdraw at any time without repercussions, with all collected information and data promptly eliminated upon withdrawal. Due to the ongoing COVID-19 pandemic in the recruitment period, many had to decline participation despite expressing interest, including municipal health managers, institution managers and middle managers. Some participants who had initially expressed interest and consented to participate withdrew their participation due to the pandemic. In total, 26 municipals were contacted, out of which four middle managers agreed to participate, while 22 declined, withdrew or did not respond, mainly citing pandemic-related reasons. The participants in this study, though not exhaustive, represent these shared challenges, rendering their insight valuable and applicable to other municipalities and institutions throughout Norway.

Data collection

Data collection was done by conducting four semi-structured individual interviews [24]. One pilot interview was included as it provided valuable data. The pilot interview involved the last author as a co-listener, and since no major changes were necessary to the interview guide, it confirmed the guide's alignment with the study's aim. Subsequent interviews were conducted by the first author with feedback from the pilot interview. Participants were selected through sample strategy to ensure they could provide relevant information for the study's objectives. The date and platform for the interviews were agreed upon beforehand with each participant. All participants who agreed to take part in the study were required to provide written consent before the interviews commenced. Prior to the start of each interview, participants were provided with a final briefing about the study and given the opportunity to withdraw their consent if they chose to do so. They were reminded that they could withdraw their consent at any point, even after the interview had concluded for any reason. All participants were asked the same set of main questions from the interview guide, focusing on the following overall themes: "Understanding of nursing competence," "Current needs and availability of nurses with further and/or master's education," "Competence development in the organisation," "Challenges related to nursing competence," "Advanced nursing competence needs" and "Extended competence specifics." The participants were given the opportunity to provide open-ended responses. Secondary questions were asked for clarification when needed. The interview guide

was tailored to this study, focusing on the middle managers' understanding, experience and perception [24, 25] of the need for general and advanced nursing competence. It was developed, drawing inspiration, and based on relevant literature as well as master's and doctoral thesis. It was further assessed and reviewed by peers, consisting of fellow students and supervisors. All interviews were conducted online using the Microsoft Teams platform. A dictaphone application, "Nettskjema-diktafon," was used on two different devices for audio capture, with approval by Norwegian Agency for Shared Services in Education and Research (Sikt). Nettskjema is an application developed for use in conducting interviews, and it encrypts and temporarily stores the audio files, until the phone is online through Wi-Fi or cellular network, and then uploads the audio files to an encrypted and secure storage. This resulted in a total of 243 min of recordings and 76 pages of transcribed material.

Although the study includes only four participants, the data's consistency suggests that key themes were comprehensively covered. It is important to highlight that the concept of *information power* supports the adequacy of a smaller sample size when the data collected are rich and the analysis is thorough. As pointed out by Sandelowski [26], a smaller sample size of participants can be sufficient when the information power is high, meaning the data provide significant insights and depth.

Data analysis

The transcribed interviews served as the empirical basis for this study and formed the starting point, using a qualitative content analysis approach based on the methods outlined by Graneheim and Lundman [27]. The analysis began with a holistic full read of the transcribed interviews multiple times to gain an overall understanding of the content [27]. The unit of analysis was then determined and colour-coded, with attention paid to preserving the meaning of the content [27]. This resulted in content areas that were also colour-coded and grouped into a higher-level category. From these content areas, codes were abstracted and used as the common denominator for grouping the unit of analysis, forming an etiquette. The codes were then evaluated based on differences and

similarities, allowing for interpretation and possible reformulation, which is at the core of qualitative content analysis [27]. Lastly, the categories were divided into overall themes based on similarities and commonalities, resulting in a total of three themes (Table 1).

Ethical considerations

The study was initiated as a Master's project and was conducted in accordance with the Declaration of Helsinki [28]. The research proposal was approved by Inland Norway University of Applied Sciences and Norwegian Agency for Shared Services in Education and Research. All participants were provided with a written information letter and a declaration of voluntary participation, which contained information about the aim and purpose of the study, voluntary participation, informed consent, the right to withdraw, and participant confidentiality and anonymity.

FINDINGS

This section presents the study's findings, exploring middle managers' perceptions with nursing competence needs within the Norwegian primary healthcare. Themes represent interpretive content, and subcategories provide specific details expressed by the participants. An illustration demonstrates the formation of all themes (Table 2). The text provides an in-depth analysis of the study's outcomes: "Meeting the growing demands of complex patient care," "Navigating the complex terrain of RN recruitment and retention" and "Transforming primary healthcare through the use of advanced competence."

Themes

Meeting the growing demands of complex patient care

All participants in this study identified a need for advanced nursing competence. They expressed a desire for increased competence within their wards, institutions and

TABLE 1 Examples of the data analysis, from condensed unit of meaning to themes.

Condensation	Code	Subcategory	Category	Theme
It is important that the NP competence becomes an additional resource	The NP competence must be an independent resource	Advanced nursing competence must have dedicated roles not associated with regular nursing duties	Usage of advanced nursing competence	Transforming primary healthcare through the use of advanced competence

TABLE 2 Presentation of all themes, category and with examples from subcategory.

Subcategory	Category	Theme
Clinical observations are important for detecting deterioration and working preventively	Advanced nursing competence is necessary to be able to take care of the patients	Meeting the growing demands of complex patient care
Broad competence is needed to take care of all patients		
Challenges in recruitment, both for RNs with and without further education and master's degree	Recruitment of qualified nursing professional competence	Navigating the complex terrain of RN recruitment and retention
Advanced nursing competence must have dedicated roles, not associated with regular nursing duties	Usage of advanced nursing competence	Transforming primary healthcare through the use of advanced competence
Advanced competence must be utilised for teaching and mentoring other staff members	Teaching and guidance are part of advanced nursing competence	

municipalities, so that it could be put into practice directly in patient care situations. Participants noted an increase in patients with complex diseases in recent years, placing additional demands on Registered Nurses (RNs), despite no corresponding increase in the number of RNs. In some cases, particularly during evenings and nights, a single RN may be responsible for an entire ward, or even multiple wards or zones, leaving the unit vulnerable in the event of an emergency. The participants who were not familiar with the role of a NP did not explicitly mention the need for NP competence. However, they provided detailed descriptions of the type of competence required, emphasising the importance of RNs having extended and advanced skills in clinical assessment.

As a middle manager, it is crucial that my RNs possess clinical competence. They should have the ability to observe and recognize the different needs of patients and be equipped with the knowledge and skills to manage situations based on those observations.

The participants who had a NP in their team or were undergoing education to become a NP expressed a high desire for NP competence. They saw the benefits of having such a resource within their department/zone and institution.

We receive patients from hospitals with varying needs, which requires a broad range of nursing competencies to ensure adequate care.

Navigating the complex terrain of RN recruitment and retention

Recruiting RNs for the primary healthcare sector is a challenge for both smaller and larger municipalities, as

mentioned by all participants. Newly graduated RNs tend to apply for hospitals and secondary care, leading to a thin recruitment basis and availability. This is not limited to RNs with further education and master's degrees, but also applies to ordinary RNs. Busy workdays and high workload may contribute to this issue. Many RNs are advised during their education that applying to a hospital for secondary care will offer more experience with patient procedures and treatments, making it seem more interesting and exciting.

Recruiting RNs can be challenging, but maintaining high-quality patient care is essential. Moreover, full wards pose additional challenges in the event of an RN being on extended sick leave or leaving the job. Given the shortage of competent RNs, it can be difficult to replace them if they decide to quit.

It is generally difficult to maintain adequate RN staffing levels, and replacing a competent RN who decides to quit can be a challenge.

In addition to the challenges of recruiting RNs, it turns out that recruiting RNs with further education and master's degrees is even more demanding.

This challenge is being approached differently in the various wards to which the middle managers belong. Some municipalities offer to cover part of the education cost for those who want to pursue further education, including master's degrees, in exchange for committing to that workplace for a few years. Others have tried to solve it by hiring through staffing agencies. All the middle managers expressed a desire for more competence beyond what is offered by ordinary RN education. However, there were disagreements about how to solve the need for competence. Two of the middle managers who did not have NPs in function or under training had a limited understanding of advanced competence. They focused more on the challenges and consequences of having an RN pursue

further and master's degree education, especially when there were already recruitment challenges and a demanding basis.

While an employee is undergoing education, it can be challenging to replace their competence. If an RN is absent due to education, we may need to hire someone new in the meantime.

Though sponsored education for RNs can offer advantages, such as employers covering part of the cost, the participants in the study acknowledged the potential challenges. RNs may already be working beyond their contractual obligations, and combining further education or a master's degree with full-time work could exacerbate recruitment challenges and overwhelm RNs.

With the requirement of working 4 days a week during the internship period, and the additional expectation of working extra shifts and weekend shifts at the workplace, it can be quite demanding.

The participants expressed a desire to offer sponsored education to increase competence, retention and attractiveness of primary healthcare for RNs, but they acknowledged the lack of structure and organisation for such programmes. They believed that budget constraints and lack of prioritisation at higher levels contributed to RNs having to negotiate educational support with their workplaces individually.

I would like to provide my RNs with more opportunities to pursue further education, including master's degrees, and cover their expenses and wages during that time. This would allow them to graduate with more competence and motivation to bring back to our workplace.

Transforming primary healthcare through the use of advanced competence

There were disagreements among the participants regarding the implementation and use of RNs with advanced competence. Some believed that each ward should have its own RN with advanced competence, while others argued that there should be only one or two such RNs per institution to ensure that the competence was given the right priority. However, all participants agreed that RNs with advanced competence should have their own role and defined areas of responsibility. One participant emphasised the importance of clear communication and collaboration

between the RNs with advanced competence and other healthcare professionals, to ensure that they are utilised effectively and efficiently.

There was mutual agreement among the participants that a RN with advanced competence must function as an additional resource, rather than an ordinary RN with additional and extended functions. In this way, the advanced competence could contribute directly to patient situations, and other RNs could benefit from having an extra resource person in demanding situations. It was also agreed that such a resource person could not be tied to a specific ward or location, as this would limit their utility value. The participants with NP in function or training highlighted the importance of the NP having the flexibility and adaptability to enter patient situations where advanced competence was needed the most, regardless of ward or location. This allowed for optimal utilisation of the competence. The RN was given time to work together with the NP, plan and organise special days, teaching, guidance and simulations. Participants without NP described a similar role for a RN with advanced competence as that of a NP, when asked how best to utilise them.

It is important to view NP competence as an additional resource rather than a replacement for other roles. If a RN with advanced competence, such as an NP, continues to work in a regular RN role, it may become challenging to fully utilize their skills and work on a higher level within the field of nursing.

The participants emphasised the importance of ongoing education and professional development for healthcare personnel, particularly RNs. They opined that NPs, who possess advanced competencies, could be instrumental in training colleagues, which in turn would enhance team proficiency and positively influence patient care. They also stressed the significance of self-awareness and acknowledging limitations in nursing practice, advocating for seeking support and continual learning when confronted with complex patient scenarios. As one participant stated:

If we receive patients with complex diagnoses or situations that require competence beyond our own, it is crucial to have access to professional support and resources.

Teaching and guidance serve as cornerstones in primary healthcare, vital for cultivating collaboration, underpinning competencies and advancing patient care. Engaging in shared experiences and collective reflections on patient cases aids in comprehending patient necessities and pinpointing areas in need of extra training or

backing. Nevertheless, the initiation of teaching and guidance endeavours presents hurdles, primarily due to the heterogeneity in patient needs and the extensive range of competencies essential in healthcare. These endeavours demand considerable time investment, confidence and profound insights into both the patient population and the working environment.

It is demanding to organize teaching for employees, as it requires dedicating time and effort. Despite the challenges, such initiatives are integral to ensure that care is appropriately tailored to each patient's unique needs and circumstances.

In primary healthcare, the patient spectrum is incredibly diverse, encompassing individuals needing rudimentary medication assistance to those necessitating comprehensive healthcare. Patient demographics in nursing homes, health centres and home-based care are distinctly varied. A central theme across all interviews was the imperative utilisation of nursing competence for patient benefit. Middle managers highlighted the significance of competencies that enable the identification of shifts in patient situations and enable preventive action. The optimisation of advanced competence transcends mere diagnostic categorisation and encompasses an array of patient requirements. RNs possessing advanced skills should be deployed for cases demanding care exceeding the standard RN scope, such as chronically ill patients experiencing symptom escalation or atypical acute episodes in ordinarily stable patients. Moreover, nurses with advanced competencies can play pivotal roles in streamlining departmental or zonal workflows. Through insights and innovation, nurses with advanced competencies can spearhead the creation of protocols, routines and guidelines while providing mentorship to other staff. In essence, advanced competence bolsters both healthcare service quality and efficiency, which redounds to the benefit of patients and the healthcare system at large.

Competence encompasses not only the ability to provide direct patient care, but also to organize one's team and manage the day effectively. It involves seeing the patient as a whole and recognizing the importance of all observations, not just the specific task at hand.

DISCUSSION

This study sought to explore middle managers' perception of the need for nursing professional competence within

the Norwegian primary healthcare. Findings suggest middle managers appreciate advanced nursing competence for its role in offering more holistic, person-centred and comprehensive patient care, despite challenges concerning manpower and competence development.

The growing demand for advanced nursing competence emerged as a significant theme, as the ageing and increasingly diverse patient population calls for a broad range of skills among nurses [1]. Middle managers acknowledge this growing demand for advanced nursing professional competence, emphasising its value not only in enhancing patient treatment and follow-up, but also in augmenting the skills of other healthcare personnel. Particularly, they value competence that directly addresses advanced patient care. Health promotion and preventative care are recognised as essential components in the context of advanced nursing competence [8]. These components not only complement traditional treatment methods, but play a fundamental role in improving patient outcomes, preventing health issues and fostering a holistic approach to healthcare. Furthermore, the study emphasises the necessity of defined roles and responsibilities for nurses with advanced competence, along with clear guidelines on when and how they should be involved in patient situations requiring advanced competence. Middle managers value the contributions of RNs; however, they find the current competencies inadequate for the evolving healthcare landscape. One of the key challenges identified by middle managers is the recruitment of skilled RNs. Skilled RNs with experience and competence on an expert level, as described by Benner [9], are key for adequate patient care. The anticipated shortage of RNs in the future [29] exacerbates this issue. Moreover, there are considerable financial and logistical challenges associated with providing further education and master's degree programmes for RNs. Middle managers express the need for more organisational support and resources for facilitating competence development. This underlines the necessity for investments in nursing education and competence development, to equip nurses with the skills needed to cater to the changing demands of the primary healthcare sector [2, 4].

Another crucial aspect is the role of middle managers in shaping competence within their departments or zones. The study's participants acknowledged the importance of advanced competence development and the difficulties in recruiting skilled RNs. As middle managers are closely linked to service provision, they have a critical role in fostering a competent nursing workforce [23]. However, the responsibility for fostering a competent nursing workforce should not rest solely on middle managers. Top management needs to be actively

involved and supportive in facilitating competence development [23]. The creation of competence plans should focus on enhancing the quality of care, standardising professional development, and must be grounded on well-defined objectives [7, 23].

On the topic of advanced nursing competence, participants unanimously agreed on its necessity, but differed in views regarding its application and usefulness. Those who were familiar with the role of NPs recognised advanced competence as a cost-saving measure that positively affected patients. In contrast, middle managers who were not familiar with NPs expressed the need for RNs with advanced competence without pinpointing any specific education or formal title. NPs were identified as being valuable for handling complex patient cases and performing clinical assessment. They were also seen as crucial in facilitating communication with physicians and other stakeholders. For managers unfamiliar with NPs, the descriptions of desired RN competencies included clinical assessment, pharmacological knowledge, ability to share skills with colleagues, and a holistic and person-centred patient care approach. These desired attributes match the level of a nursing competence equal to proficient and expert [9]. It also aligns with the competence of a NP, as well as the five principal categories of advanced level clinical competence defined by Nieminen et al. [10], described as assessment of patients' care needs and nursing activities, the care relationship, multi-professional teamwork, the development of competence and nursing, and management in a culture of learning and care.

Internationally, research suggests that NPs contribute positively to patient outcomes [14]. This is observed in lower mortality rates [13], reduced hospitalisations and increased satisfaction among patients and relatives [15]. Similar findings are reported in studies from Nordic countries [6, 30] where NPs are well-integrated into the healthcare sector. NPs focus on holistic and person-centred patient care, profound professional understanding of anatomy, pharmacology and pathophysiology, and capacity to work collaboratively with other healthcare professionals [8] may offer valuable insights into how advanced competence can be utilised. However, in Norway, the NP role is relatively new [11] and yet to gain full recognition or integration, which in turn still offers opportunities for further growth and exploration in this domain. Hence, it cannot be conclusively stated that NP competence is the advanced competence required by the primary healthcare sector. The challenge remains not just in having advanced competencies but in knowing how to effectively utilise these competencies for improved healthcare quality and patient outcomes. Advanced nursing competence is vital

in the ever-evolving landscape of primary healthcare [2] and it is not a question of whether advanced competence is beneficial or not, but rather how it can be employed to serve patients better and enhance healthcare quality.

Given the growing complexity of healthcare needs in Norway, investments in education, supportive organisational structures and the integrations of NPs could be paramount to ensure the adequacy of the primary healthcare service [2]. Building on these findings, the present study underscores the urgency for evaluating and adjusting educational, organisational and financial frameworks surrounding NPs within the Norwegian primary healthcare system. This aligns with previous research highlighting the pivotal role of NPs in improving patient outcomes and addressing the challenges posed by an ageing and diverse population [2, 4]. By aligning with these insights, policy makers and healthcare managers can better navigate the evolving landscape of primary healthcare delivery and optimise patient care outcomes.

Methodological considerations

Conducting interviews online provided greater flexibility and accessibility as it allowed for more adaptable interview scheduling and increased participants' comfort levels and willingness to share their experiences. The absence of physical presence may have made it challenging to establish a trusting and comfortable atmosphere, potentially leading to incomplete responses. Technological problems or distractions in the participant's surroundings could have interfered with the interview's quality. The lack of face-to-face interaction may have limited nonverbal communication cues and created potential technological obstacles.

The ongoing COVID-19 pandemic affected the participation rate. While there are no set numbers for the sample in qualitative studies [24, 26], the low number of participants could be a weakness, which limits the generalisability of the findings [25]. However, the diversity within the sample size, including variations in background, locations and institutions, coupled with the consistency of reported information suggests that the data collected are comprehensive. This fact lends to the credibility of this study [31, 32], when it comes to the applicability towards other municipalities and institutions within the Norwegian primary healthcare system. This study's findings indicate that the competencies needed, as reported by participants, are consistent with the newly established NP degree in Norway [33]. The development process of the interview guide, which involved input from multiple sources, adds to the study's credibility. Although not pretested, the interview guide was designed to generate comprehensive data,

and follow-up questions provided additional insight into participants' experiences and perspectives [25]. Thus, the meticulous design and review of the interview guide suggest its efficacy in collecting relevant data to address the aim of this study [24]. Although the findings cannot be generalised to other settings, the study can still contribute to valuable insights and spark discussions internationally.

CONCLUSIONS

This study underscores the significance of advanced nursing professional competence in Norwegian primary healthcare, as perceived by middle managers. It provides inspiration on how advanced competence can be utilised and emphasises the potential benefits of utilising nursing professional competence in primary healthcare, such as improving patient outcomes and reducing healthcare costs. The study's findings also highlight the challenges that need to be addressed in utilising nursing professional competence. However, it is important to acknowledge the potential limitations of the study. Further research is needed to fully explore the experiences and perspectives of middle managers in primary healthcare and to develop effective strategies for improving nursing professional competence. Future research could explore the experiences of patients, healthcare personnel, middle managers and leaders in using nursing professional and NP competence in both primary and secondary healthcare and investigate the economic benefits of such competence.

AUTHOR CONTRIBUTIONS

Choi Kristian Wiik planned, collected the data, analysed the data and prepared the manuscript. Anne Vifladt contributed to the draft of the manuscript. Sevald Høye was the main supervisor and project leader. The manuscript was read and approved by all authors before submission.

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CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Inland University of Applied Sciences at <http://inn.no/bibliotek>.

ETHICAL APPROVAL

This study received ethical approval from the Norwegian Agency for Shared Services in Education and Research and adheres to ethical principles of the Declaration of Helsinki.

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