


# Outcomes and challenges of successful clinical nurse specialist role implementation: Participatory action research

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## Abstract

**Aim:** To describe the clinical nurse specialist role and its outcomes and challenges.

**Design:** Participatory Action Research conducted in Finland between the fall of 2017 and the end of 2018.

**Methods:** A core participatory action research team ( $n = 10$ ) led the design, implementation and evaluation of the research. Multiple data collection methods were used. The study is reported using the Enhancing the QUALity and Transparency Of health Research (EQUATOR) guidelines for participatory action research.

**Results:** The clinical nurse specialist used most of the time in clinical patient care followed by clinical nursing leadership and scholarship activities. Outcomes of successful implementation led to increased visibility of nursing expertise, development, integration and quality assurance of nursing processes and practice, and promotion of knowledge translation and unit and collaborator cooperation. Furthermore, role challenges were also recognized.

## KEYWORDS

action research, advanced practice nursing, clinical nurse specialist, health services research, nurse clinicians, participatory research

## 1 | INTRODUCTION

The clinical nurse specialist (CNS) was the first advanced practice nursing (APN) role developed 70 years ago in the United States (US; Fulton, 2021). Despite of years of maturing, the CNS role is still poorly understood with confusion around titling, credentials and the scope of practice. Lack of understanding of the role and its outcomes has resulted in the inconsistent use and inadequate use of the role in healthcare systems (Sanchez et al., 2019). According to the International Council of Nurses (ICN), a CNS is “an advanced practice nurse who provides expert clinical advice and care based on

established diagnoses in specialized clinical fields of practice along with a systems approach in practicing as a member of the healthcare team” (ICN, 2020). CNS attend to patients with complex needs, offer clinical leadership and support at the level of unit, hospital or organization in the management and integration of nursing care, and participate in scholarship activity in collaboration with others (Jokiniemi, Heikkilä, et al., 2021). This paper describes participatory action research (PAR). As the aim of PAR is to understand and improve practice by collective, self-reflective inquiry (Baum et al., 2006), the understanding about the CNS role and outcomes of successful role implementation in specialist medical health care will be clarified.

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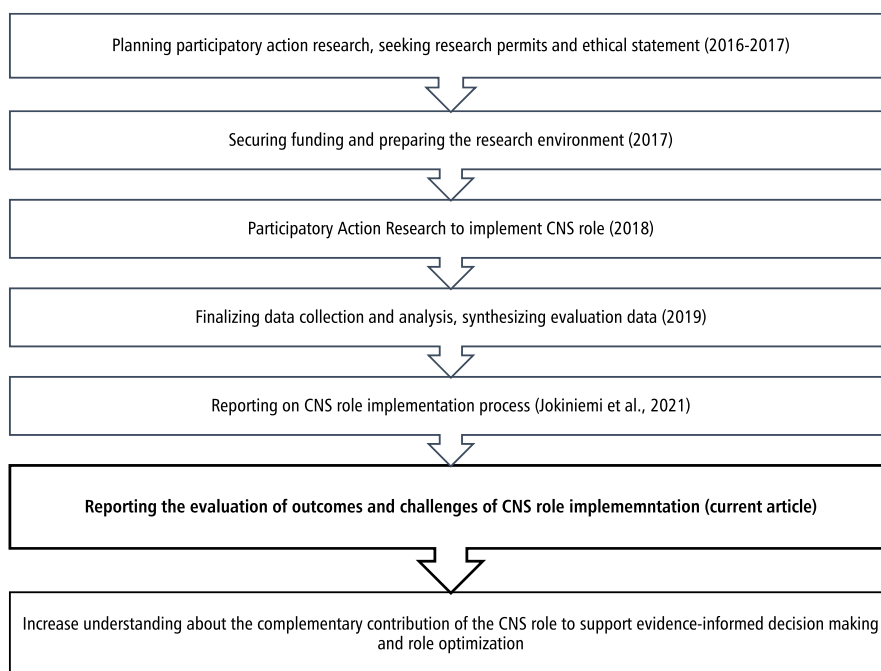
## 2 | BACKGROUND

There are increasing opportunities for nurses in CNS roles to meet the unmet needs of diverse populations and healthcare settings (ICN, 2020). Observations from the United States show a resurgence of the CNS role (Reed, 2021). In Nordic countries, including Finland, CNS roles are also gaining momentum. In Finland, after nearly 20 years of existence, organizations have deployed around 130 CNS, and the numbers continue to grow. Few national policy papers include the role of CNS and guide role implementation (Finnish Nurses Association, 2016; Jokiniemi et al., 2019; MSAH, 2020). In addition, the CNS core competencies have been described in Finland and validated in the Nordic context (Jokiniemi, Holge-Hazelton, et al., 2021; Jokiniemi, Pietilä, et al., 2021). Although the CNS role is not licenced or regulated, it is noted that organizations are increasingly developing nursing career ladders and use the policy papers and guiding documents to introduce integrated CNS roles. However, little knowledge is available on the determinants and outcomes of successful CNS role implementation in Finland.

To demonstrate CNS-specific outcomes and positively influence organizational metrics, an understanding of the CNS role and practice expectations is necessary (Sanchez et al., 2019). CNS roles have contributed to patient outcomes by improving population health, providing better quality of care, lowering healthcare costs (ICN, 2020; World Health Organization, 2015, 2019) and leading system-level nursing practice initiatives (Fulton et al., 2019) and improving the recruitment and retention of nurses (Kilpatrick et al., 2016). As the CNS role is often perceived as being invisible in variable settings (ICN, 2020), it is imperative to continue to make the role and its outcomes visible and show CNS-specific outcomes (Fulton et al., 2019) to support the future prosperity and deployment of CNS.

The target organization of this research is one of the five University Hospitals in Finland, where the nurse career pathway from Registered Nurse to advanced practice nurse was introduced in the 2010s. Due to the lack of knowledge on the successful CNS role introduction and evaluation, a need to inquire into new role and its outcomes was recognized. PAR was selected as a methodological orientation for the CNS implementation process conducted between 2017 and 2018, thus it aimed to collaboratively develop practice by “researchers” and participants’ collective, self-reflective inquiry (Baum et al., 2006). The PAR processes employed were multi-method and interdisciplinary in nature (see e.g. Baum et al., 2006; Payne, 2017) and the Donabedian (1985) structure, process, outcome framework was used to identify structures and process from an intertwined chain of events leading to the outcomes.

At the beginning of the PAR process there was no ICN CNS definition in place. Therefore, the national CNS role definition (e.g. Jokiniemi, 2014; Jokiniemi et al., 2019) was adopted to support role conceptualization process: “CNS is an experienced, Master’s educated Registered Nurse whose central focus of role is clinical nursing. CNSs strengthen clinical nursing care quality, support organizations strategic goals and promote the integration of nursing practice and science. CNS work in the areas of patient, clinical nursing leadership, organization and scholarship.” Our previous article (Jokiniemi, Korhonen, et al., 2021) describes the PAR background information and implementation process phases of preparing, designing, introducing and evaluating the role in detail. In this article, we will report the outcomes and challenges of CNS role implementation conducted during the PAR process to support the understanding about the role and its outcomes and consistent use of the role (Figure 1). Providing a better understanding about the role and associated outcomes/challenges can support CNS role clarity, successful deployment and highlight the unique contribution through the achievement of high-quality patient outcomes.



**FIGURE 1** Participatory action research process; the bolded step is covered in this paper. CNS, clinical nurse specialist.

### 3 | METHODS

#### 3.1 | Aim

The aim of the study was to describe the CNS role and its outcomes and challenges in specialist medical health care. Our action hypothesis was that, in two specialist medical healthcare units where no unit level CNS role previously existed, the outcomes of increased visibility of nursing expertise, development of nursing practice, and promotion of quality assurance processes can be achieved by a combined strategy of PAR, conceptualization and implementation of unit level CNS role and critical review of the role implementation outcomes.

#### 3.2 | Design

Participatory action research was conducted in two specialist medical healthcare units in Finland between the fall of 2017 and the end of 2018. Sequential multi-method data collection took place throughout the PAR process and during the spring of 2019. The Enhancing the QUALity and Transparency Of health Research (EQUATOR) guidelines for PAR were used as the reporting guidelines (Smith et al., 2010; Table S1).

#### 3.3 | The PAR process description

The PAR process took place during a year-and-a-half period and included two units in specialist medical health care (referred from here on as implementation units). A commitment to the PAR processes was sought from the chief executive nursing management of the hospital and the governance team of the implementation units prior to the commencement of the PAR. The implementation units' willingness to partake and commit to the PAR was ensured from early on.

In the course of the PAR, one new CNS position was established. Prior to the PAR, two implementation units shared one nurse manager (NM) position and each unit had a full-time assistant nurse manager. During the PAR process, one of the assistant nurse manager positions was changed to a CNS position so that the implementation units would now share the NM, CNS and assistant head nurse positions. These positions were assigned among the original post-holders (see Jokiniemi, Korhonen, et al., 2021). The PAR process was carefully introduced to the implementation units with face-to-face meetings, written information packages and continuous reflective discussions.

#### 3.4 | Context, participants and PAR team

The context of the PAR was a specialist medical healthcare hospital in Finland. One acute admission unit and one treatment unit in a specific specialty formed the PAR implementation units. The nursing staff from the implementation units, around 40, were active participants in the PAR. The principal investigator, research assistant

and eight members of the implementation units' staff (including the unit manager and physician, assistant nurse managers and four staff nurses) formed a voluntary core PAR team.

#### 3.5 | Researcher and co-researcher involvement

The principal investigator was responsible for the overall conduct of the PAR process; however, in the PAR, researchers and co-researchers are seen as equal partners in the research processes (Policy, 2018). The core PAR team was established in the beginning of the process and met regularly to design, conduct and evaluate the PAR process in the leadership of the principal investigator. The co-researchers also verified the data analysis and had the opportunity to be involved in the writing of the manuscripts reporting the study results.

#### 3.6 | Data collection and analysis

The data, to evaluate the outcomes of the CNS role implementation, involved multiple data sets (Table 1). The data analysis was based on hermeneutic understanding and performed by applying a cycle consisting of reading, reflective writing and interpretation in a rigorous fashion (Kafle, 2011). The leading principal of data analysis was to bring forward participants thoughts and reflections to create a shared set of understanding about the phenomenon and build bridges between the theory and practice (see e.g. Titchen, 2015). Therefore, an overview of the most critical themes of data were considered by the PAR team prior to attempting to analyse the full set of data. Although the data analysis was not wholly participatory, it was conducted by the core PAR team whereby the university staff (principal investigator and research assistant) made the initial analysis, which was then discussed and reflected on by the core PAR team members. Member checking was conducted throughout the analysis process.

The *individual* ( $n = 1$ ) and *group interviews* ( $n = 6$ ) were conducted at the completion of the PAR by principal investigator and research assistant. Altogether, 21 participants (15 females and six males), with an average age of 44 years, were interviewed. The interview guides were developed for this study (themes: CNS role structures and process, role outcomes and challenges, and overall role significance) and piloted prior they use in research. Interviews were recorded and transcribed. To find repeated patterns of meaning and reach a complete understanding of the *qualitative data* from interviews, thematic analysis (Braun & Clarke, 2006) was employed. The analysis included data familiarization, coding, generating and reviewing themes, defining and naming themes. Based on parallel analysis of the data sets, convergent, non-linear outcome themes of CNS role outcomes and challenges started to emerge.

Clinical nurse specialist *time use* was recorded to examine the time required to perform clinical or non-clinical activities during a typical week close to the end of PAR. In synchronous active tracking of time, the CNS completed a self-report log with the time data on 15-min intervals (Lopetegui et al., 2014). To analyse the time study data, similar documented activities were grouped into categories

TABLE 1 Data collection and analysis

Data collection method	Aim	Concepts/measures used	Participants/Data	Transcription	Analysis
Focus-group and individual interviews	To describe the clinical nurse specialist role and its outcomes and challenges.	CNS role outcomes and challenges	Participating units' staff Total of seven interviews (21 participants)	91 pages <sup>a</sup>	Thematic analysis
Time study	To record the time used to perform clinical or non-clinical activities.	CNS activity	CNS 1-week self-report time log on 15-min intervals	-	Descriptive statistical analysis: frequencies and percentages
CNS competency mapping	To measure the use of CNS competence during a typical month.	CNS competence in the areas of patient, nursing, organization and scholarship	CNS self-report core competency scale	-	Descriptive statistical analysis: frequencies and percentages
Researcher field notes and team-meeting memos	To enhance data and provide context for analysis.		Collected throughout the PAR by Principal Investigator	38 pages <sup>a</sup> + handwritten memos	Thematic analysis

Abbreviation: CNS, clinical nurse specialist.

<sup>a</sup>Times New Roman, ft 12, space 1.5.

and then descriptive statistics were used to analyse the frequencies and percentages for each activity.

For the *self-evaluation of competence*, the validated CNS Core Competency Scale (Jokiniemi et al., 2018; Jokiniemi, Pietilä, et al., 2021) was used at the end of PAR. The scale measures the use of competence during a typical month on a 5-point, Likert-type scale (0-never, 1-rarely, 2-sometimes, 3-often and 4-always). The self-evaluation of competence was analysed by descriptive statistics to count the means of competence use by individual competencies and four distinctive sub-categories of patient, nursing, organization and scholarship.

In addition, PI kept *reflective field notes* of unstructured observations and conversations throughout the PAR process (e.g. after PAR meetings and interviews) to deepen understanding and allow for transmission of the full depth of the study context (Phillippi & Lauderdale, 2018). Thematic analysis (Braun & Clarke, 2006) was employed to analyse the reflective field notes.

Merging data from various data sources were initially done by the principal investigator and research assistant and discussed with the core PAR team. The data analysis process was finalized by tabulating and synthesizing the data. The results are reported by narrative means to tell the complicated story of the data (Smith et al., 2010).

### 3.7 | Ethical considerations

The PAR team discussed the shared vision and common purpose for the PAR to clarify participant values at the beginning of the process (Titchen, 2015). In addition to being rooted in the values of those involved, the study was carried out in accordance with The Finnish Advisory Board on Research Integrity and Code of Ethics of the World Medical Association Declaration of Helsinki. Thus, the research conformed to generally accepted scientific principles, was conducted responsibly based on a thorough knowledge of the scientific literature and was clearly described and justified in a research protocol. The study involved healthcare workers as delegates of their profession; therefore, the prospective participants were informed about the study and written informed consent was sought. Participation was voluntary and could be ceased at any point of time (World Medical Association, 2013). Research approval was sought from the target organization and an ethical evaluation of the study was obtained from the University of Eastern Finland Committee on Research Ethic (statement number: 27/2017).

## 4 | RESULTS

### 4.1 | Establishment and actualization of the clinical nurse specialist role

#### 4.1.1 | Role differentiation and support

The CNS role was established by rearranging existing resources; the task-share between the nursing governance team enabled the

use of existing resources in a more effective way to respond to the implementation units' needs. Role rearrangement and differentiation between the NM, assistant nurse manager, and CNS offered a structure upon which the daily operations and collaboration of the two units were built on. The chosen model, where two parallel units shared one CNS, a NM and assistant nurse manager was well received with added value on nursing practice due to the optimal role allocation of the nursing management team.

The core PAR team set initial goals aligning the role definition and needs of the units for the CNS role, which were confirmed and reflected upon in the unit staff meetings held by the core PAR team. To achieve the vast role expectations, the CNS planned a year-round schedule to prioritize activities and allocated equal working time to both units to ensure equity.

Positive anticipation of the new CNS role supported the role introduction and the CNS in her role transition. Furthermore, the CNS role transition was supported by the CNS mentorship process, which took place prior to, during and after the PAR. The growth of the CNS self-realization process was important in forming a base to improve role management and prioritization. In addition, the CNS support received from the multidisciplinary team, peers, mentor and the organization level CNS was imperative for CNS role actualization.

#### 4.1.2 | CNS role actualization

Several CNS characteristics were supportive of the role actualization. CNS had *extensive experience* in the specialty area and on the house and Master's level university studies to support her in the role. CNS strong *professional skills* and *know-how* in the specialty area supported the conduct and development and quality of nursing care. The CNS activities and competence building were based on and reflected against the CNS core competencies developed in the Finnish and Nordic context (Jokiniemi et al., 2018; Jokiniemi, Pietilä, et al. 2021). Staff recognized a wide range of CNS competencies, which was evident when she took part in and collaborated with the staff. A CNS self-evaluation of core competence revealed

that she was regarded being most competent in the organizational, patient and clinical nursing leadership spheres (respectively), and her self-evaluation showed high scores in these competencies. The CNS self-evaluation of the scholarship competence level was the lowest. She voiced that she did not have extensive experience in the scholarship domain; however, she was confident that, based on her knowledge, skills and work experience, she would be able to put into practice these competencies when needed. In the scholarship domain, she recognized being most competent in the dissemination of research evidence, promotion of the use of research in the organization and promotion of cooperation between the organization and scientific communities. Competencies requiring the most development in the scholarship sphere included the promotion of national and international publications of development and research projects and participation in national and international multidisciplinary research and development projects.

At the end of the 1-year role implementation period, the analysis of the CNS time study included 1,730 self-reported minutes of activity in one typical week. Based on the thematic analysis, the CNS used most of the time in clinical patient care (e.g. direct care activities, meetings with patients to plan care and multidisciplinary team reports) and the second most in the clinical leadership of nursing (e.g. planning unit functioning, meetings with the NM and physician). Scholarship activities (e.g. data searches, development projects and project meetings) and education activities (e.g. participation in education, conducting staff education and tutoring) were among the two least used activity areas. Finally, one fifth of her time was used in generic activities including breaks and writing memos, reading e-mail and organizing the general functioning and safety of the unit (e.g. lighting; Figure 2).

## 4.2 | Outcomes of the clinical nurse specialist role implementation

### 4.2.1 | Promotion and development of patient care

The CNS role was perceived as having a positive impact on patient care outcomes. The CNS was conducting, supporting and

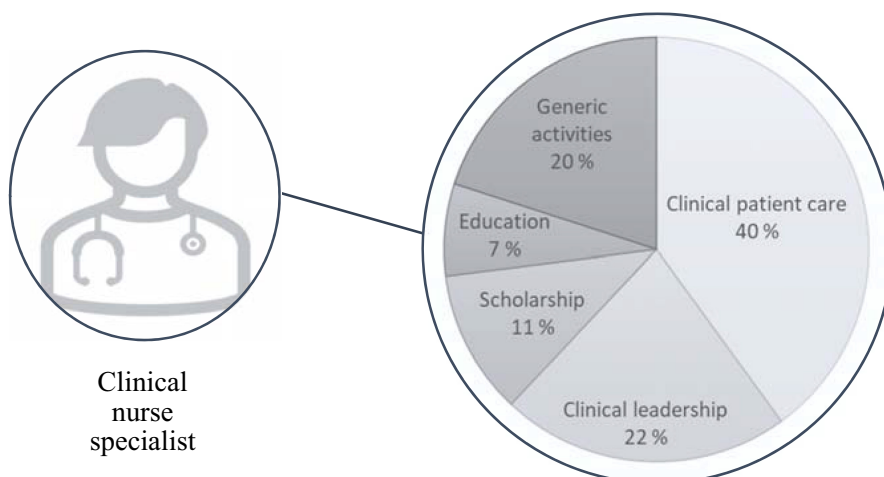


FIGURE 2 Clinical nurse specialist time use

leading the care of patients with complex needs in collaboration with the multidisciplinary team. She conducted daily patient meetings with staff, coordinated weekly patient education groups and led a project aiming to improve patient self-care and adherence to treatment. The CNS worked to ensure safety and quality of care. As a new initiative, she scheduled weekly patient safety meetings with the unit physician and allocated time to respond to and reflect on the observed/anticipated risk factors notified in the care environment.

The staff saw the CNS as a developer of patient care and its process. The development of patient care was seen as a mutual goal requiring continuous effort from the CNS, staff and multidisciplinary team. New practices were implemented by the CNS, such as managing the patient queue. The CNS role as a queue manager led to a CNS role as a patient care coordinator, which promoted patient care continuation, knowledge translation and staff collaboration. CNS patient queue management promoted smooth patient transitions in the hospital while assuring the actualization of jointly agreed care procedures, especially in more complex situations (Figure 3).

#### 4.2.2 | Strengthening cooperation

The CNS had excellent social and communication skills, which she used to promote teamwork. Through the PAR process, meaningful collaboration was seen to occur between the implementation units and with the core collaborators outside the organization. Furthermore, staff mobility between units and aiding others had improved, impacting on the promotion of mutual understanding of patient care processes, the integration of practices and rapport in the two implementation units. Following the shared NM, the assistant nurse manager and CNS positions and staff mobility between the implementation units, the cooperation and flow of information in and outside the units was increased.

#### 4.2.3 | Development and better use of know-how

As a part of her role, CNS assessed the collective know-how of the unit's staff. If one unit was in need of expertise in a certain area of nursing and the other unit had this expertise, the CNS could re-arrange the staff roster (in collaboration with the assistant nurse manager) to accommodate the needs of the units. In addition, the CNS planned staff education in collaboration with the NM. The staff saw that their know-how had developed during the implementation period, with more crisp focus on primary problem-solving and being able to find alternative ways of working. Furthermore, they saw experienced staff nurses taking on more responsibilities and being in charge of the units. While the CNS competence was more visible, the core PAR team highlighted a need to better visualize the competence of the staff in order to support the optimal use of nurse's roles.



FIGURE 3 Outcomes of successful clinical nurse specialist role implementation

#### 4.2.4 | Integration of best practices

The PAR process was seen as an important eye-opening experience that introduced a new nursing role. The task-share of the new model (NM, assistant nurse manager and CNS) led to better work distribution between the three roles, and thus improved the working conditions of each role. While the management activities were better integrated and covered by the NM and assistant nurse manager, the time of the CNS was protected to advance practice nursing, clinical leadership and organizational and scholarship activities.

The CNS worked to integrate best practices and organizational policy guidelines in the units while offering clinical leadership to the staff. Furthermore, she facilitated carrying out organizational and nursing initiatives such as ensuring that the staff was filling in nurse-sensitive measurement tools and following safety protocols. Her own role conduct was based on evidence, and she actively worked to promote and ensure evidence-based practices in the units.

#### 4.2.5 | Knowledge translation and quality assurance

Knowledge translation with regards to nursing processes was highlighted during the PAR and was a central part of the CNS role and nursing practice integration. In general, knowledge translation and continuous reflective discussions throughout the PAR were perceived as effective by the staff. The core PAR team anticipated knowledge translation challenges of staff working in shifts, and thus planned diverse ways of informing (e.g. e-mails, project

folders distributed to the units, and individual and team discussions with staff). Furthermore, the responsibility of the staff was also highlighted as an active participant in knowledge translation processes.

Clinical nurse specialist assured the carrying out of nurse-sensitive outcome measurements. Therefore, the units' compliance to outcome measurements increased the comprehensiveness of the measurement data. The CNS participated in research projects running in the units and led units' internal projects to increase patient adherence to treatment and self-care. In addition, the CNS followed the statistics to assess evaluation data on patient care (e.g. satisfaction, clinical measurements), nursing practice (e.g. satisfaction, patient acuity) and organization (e.g. safety). In collaboration with the unit governance team, the CNS evaluated the measurement data to develop nursing practice and assure quality in the participating units.

### 4.3 | Evaluation of implementation challenges

Despite the successful CNS role implementation, challenges were also recognized. The CNS role implementation period, of approximately 1 year, was found to be adequate in length; however, the participants voiced that the PAR process ended just as "they got the hang of things." The staff had difficulties in comprehending the role of the previously unknown complex position of CNS. Despite of continuous, multifaceted informing of the new role, staff reported the knowledge on the CNS role as variable. Raising role awareness and recognition, and supporting role transitioning is a challenging process, regardless of the participatory processes undertaken. The wide organizational visibility and acceptance was unknown, especially in the beginning of the process. At the end of the implementation period, the staff recognized the CNS role very well.

Although rearranging existing resources in the participating units enabled more effective task-share between the nursing governance team, this also meant that the diversity of especially the assistant nurse manager role diminished, causing some distress. While previously the assistant nurse manager role had encompassed practice development and clinical work, it focused now more on human resource management, which was not the expectation of the previously clinically focused assistant nurse manager. As there were few CNS positions in the hospital, there were not many peer support opportunities for the CNS. Furthermore, arranging CNS stand-in during their leave of absence was difficult.

Although the CNS role was generally perceived as important, there were also varying perceptions of its relevance among staff. The staff did not necessarily see an immediate concrete need for the role and was apprehensive of possible risk of the new way of working. In the beginning of the PAR process, the role introduction was seen as overwhelming, yet with support from the PAR team and the CNS and increased awareness, this feeling soon changed to readjustment.

## 5 | DISCUSSION

This paper reports the findings of a PAR process aiming to describe the CNS role and its outcomes and challenges in a specialist medical health care. In our previous article on this PAR (Jokiniemi, Korhonen, et al., 2021), we reported the complex process of CNS role development, implementation and evaluation facilitated by the structured guidelines of the "Clinical Nurse Specialist Conceptualisation, Implementation and Evaluation framework" (Jokiniemi, 2014). We have taken this one step further and described the outcomes and challenges of CNS implementation process. Evaluation data gathered on the CNS role and participants' experiences of PAR credibly showed and that our outcome was achieved and that our action hypothesis held up during the study; the implementation of a CNS role in two specialist medical healthcare units was positively related to increased visibility of nursing expertise, the development of nursing practice and the promotion of quality assurance processes. In addition, unit and collaborator cooperation, and better use of unit know-how, were recognized benefits of CNS role implementation.

Context and praxis-based flexible role development processes were perceived as imperative premises for the effective role implementation process to occur. PAR, which aimed to improve and develop collective understanding of practice and the context of inquiry (Baum et al., 2006), has been found to be facilitative in engaging the target units to develop their own practice and raising role awareness (see e.g. Payne, 2017; Jokiniemi, Korhonen, et al., 2021). Hermeneutics, as a methodological discipline, strengthened our attempts to analyse myriad of data produced during the research, as it focuses on questions of what enables interpretation and understanding and offers tools for dealing efficiently with problems of interpretation of human actions (Smits, 1997). A hermeneutic circle (the process of understanding the text as a whole is established by reference to the individual parts and vice versa) intertwined with a PAR spiral (spiral between education, reflection, investigation, interpretation and action) meant that the processes undertaken in our research used an iterative approach aiming to increase the shared understanding of optimal role use and the impact of the CNS role. PAR allowed the gradual building of the design to fit the unique healthcare context and strengthened the participants' commitment to the processes undertaken.

In addition to the context-based, participatory processes of PAR, a few of the success points of our research are highlighted: the optimal use of resources, the clinical component of the CNS role and its related patient and nursing outcomes. Rearranging the existing resources enabled the implementation of the CNS role without increased costs. Unit-based development meant better acknowledgement of the units' needs and bound the role to a manageable, clinically focused unit-based mode. Unit-based working mode is important, as the wide work span involving several units has been previously noted as causing the CNS role being conducted at an abstract level (Jokiniemi et al., 2015). Furthermore, compared to the findings of some previous studies about the challenges and diminished CNS direct clinical practice (Jokiniemi

et al., 2015; Jokiniemi, Heikkilä, et al., 2021; Jokiniemi, Holge-Hazelton, et al., 2021; National Association of Clinical Nurse Specialists, 2020), in this study, we were able to channel CNS time towards direct clinical practice, leading to variable outcomes in the patient domain of the CNS practice. As a result of the PAR, the newly established CNS used most of her time in clinical patient care (40%). In line with time use, the outcomes highlighted the increased visibility of nursing expertise; the development, integration and quality assurance of nursing processes and practice; the promotion of knowledge translation; and improved collaborator cooperation. As CNS are being increasingly deployed to health-care organizations around the globe, we need to support future role implementation and understanding of the role impact by continually demonstrating CNS-specific outcomes (Fulton et al., 2019; Kleinpell, 2021). Furthermore, the role linkage to clinical nursing is necessary to ensure an impact on the quality of care, use of evidence-based practice, development of nursing practice and staff competencies, corroboration of the organization's strategic work, and the retention of expertise in clinical surroundings (Jokiniemi, Korhonen, et al., 2021).

In this study, we described the CNS role and its associated outcomes and challenges, which may be used by clinicians and researchers to support role clarity and optimization and highlight the unique contribution of these roles. The implementation of the CNS role is dependent of the perception of relevance and the value of roles. Therefore, increased understanding about the complementary contribution of the CNS role will support evidence-informed decision-making on CNS role optimization; however, the use of CNS in limited ways may potentially decrease opportunities to show outcomes specific to the CNS role (Sanchez et al., 2019). Decision-makers may use the study results on CNS role outcomes when considering the value of the CNS roles in healthcare reforms that support more robust use of various nursing roles to improve population health and the delivery of health services (see Lowe et al., 2012). Although organizations routinely display nursing outcomes, disseminating CNS-sensitive outcomes in a meaningful and transparent way is less common practice in Finland and deserves our attention in the future (See Sanchez et al., 2019). Continuous measuring of CNS performance is essential for identifying areas for role improvement and demonstrating role accountability.

## 5.1 | Validity and limitations

The locality of this study may be regarded as a limitation. However, the PAR method is context-based and newly created by every PAR team, aiming to improve and develop a better understanding of local practice (Smith et al., 2010; Jokiniemi, Korhonen, et al., 2021). The processes described in this paper may be replicated in other contexts. The results of this study are bound to this PAR; however, they may be considered with caution in other contexts. Ensuring rigour in action research entails using the integration of data, members checking the accuracy of data and the interpretation and

using criteria for credibility and trustworthiness (Titchen, 2015). To comply with these criteria, multi-method data were collected, and the processes used were carefully described. Moreover, participants were considered as co-researchers, and thus influenced the design, conduct, assessment and reporting of the research processes, therefore, ensuring member checking throughout the process. The understanding and the interpretation of the data was ensured by using hermeneutic cycle and Enhancing the QUALity and Transparency Of health Research was ensured by using guidelines for best practices in the reporting of PAR (Smith et al., 2010).

## 6 | CONCLUSION

Role implementation of various APN roles is of growing interest internationally. This article sheds light on the outcomes of a 1-year PAR process of successful CNS role implementation in Finland. Conceptualization and implementation of unit level clinical nurse specialist role, and a critical review of the role implementation outcomes facilitated the participatory processes taken. The described PAR process is a usable method to facilitate self-reflection and to improve the conditions of clinical practice and may be replicated in other contexts beyond the present study. Process and outcome descriptions are facilitative for organizations implementing CNS roles, and for those who are contemplating role implementation. These results support evidence-informed decision-making and CNS role optimization. They also increase our understanding of the unique and complementary contribution of the CNS role.

## AUTHOR CONTRIBUTIONS

KJ, KK and A-MP made substantial contributions to conception and design of the study. All authors made substantial contribution on acquisition of data, or analysis and interpretation of data. All authors were involved in drafting the manuscript or revising it critically for important intellectual content and gave final approval of the version to be published. Each author participated sufficiently in the work to take public responsibility for appropriate portions of the content.

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (<http://www.icmje.org/recommendations/>)]:

- substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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## CONFLICT OF INTEREST

There are no conflicts of interest to declare.

## DATA AVAILABILITY STATEMENT

Research data are not shared.

## ETHICAL APPROVAL

An ethical evaluation of the study was obtained from the University of Eastern Finland Research Committee on Research Ethics (statement number: 27/2017).

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#### SUPPORTING INFORMATION

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

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