







Core competencies of clinical nurse specialists: A comparison across three Nordic countries

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Abstract

Aim: To describe and compare the clinical nurse specialist core competency use in Finland, Denmark and Iceland.

Background: Clinical nurse specialist roles were first developed more than 60 years ago in the United States. Within the Nordic countries, the clinical nurse specialist role emerged around 2000. There is scarcity of clinical nurse specialist competency descriptions outside of North America, and research has been limited to examine or validate established competencies across different countries.

Design: A descriptive correlational study.

Methods: An online survey was conducted from May to September 2019. A population sample of clinical nurse specialists in Finland, Denmark and Iceland was recruited. A validated self-report questionnaire of clinical nurse specialist competencies was used. The data were analysed using descriptive and inferential statistics, and the STROBE checklist was used as the reporting guideline.

Results: A total sample of 184 clinical nurse specialists, 52 from Finland, 95 from Denmark and 37 from Iceland, participated in the study (response rate = 72%, 35% and 48%, respectively). Overall, clinical nurse specialists utilised the organisational competency most frequently followed by the patient, clinical nursing leadership and scholarship competency. Univariate analysis of variance test between-country effects showed statistically significant difference in patient competency ($p = .000$) and in organisational competency ($p < .05$). There were no statistically significant differences between countries in the utilisation of clinical nursing leadership and scholarship competency.

Conclusion: A small variability was found in the comparison of the clinical nurse specialist use of core competency in the spheres of patient, nursing, organisation and scholarship within three Nordic countries.

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Relevance to clinical practice: The CNS competency scale may be utilised in benchmarking clinical nurse specialist roles and practice within and across countries. The long-term goal for the competency descriptions is to enhance the clinical nurse specialist role clarity, integration and evaluation as well as inform post-graduate education.

KEYWORDS

benchmarking, clinical nurse specialists, comparative, competency, Nordic countries, nurse clinician

1 | INTRODUCTION

Clinical nurse specialist (CNSs) roles were first developed more than 60 years ago in the United States (Mayo et al., 2017). CNS is usually, at minimum, a master's prepared nurse whose role includes advanced responsibilities, specialisation and expanded practice (Schober et al., 2020). CNSs utilise advanced competency while working in distinctive yet interrelated spheres of patient care, nursing, organisation (Fulton et al., 2019; Jokiniemi et al., 2018; Mohr & Coke, 2018) and scholarship (Jokiniemi et al., 2018), thus supporting the development of nursing care, quality assurance, evidence-based practice and organisational decision-making (Fulton et al., 2016; Jokiniemi et al., 2020, 2021). CNSs add significant value to health care by improving population health and access to care, providing better quality of care and lowering healthcare costs (Schober et al., 2020; World Health Organization, 2015, 2019). Although the CNS role is a distinct advanced practice nursing (APN) role, there may be considerable variation in CNS roles within and across countries (Dowling et al., 2013; Dury et al., 2014; Jokiniemi et al., 2012). Furthermore, there is no internationally recognised standard curriculum for CNS educational content or length. Studies have identified that practices vary remarkably with regard to education standards such as entry requirements, the length of education and description of the minimum competency requirements, as well as certification across Europe (Dury et al., 2014; Rautiainen & Vallimies-Patomäki, 2016).

2 | BACKGROUND

The Nordic Countries (Finland, Denmark, Iceland, Norway and Sweden) have similar healthcare systems (Olsen et al., 2016) and the CNS role, as it is known today, emerged there around the year 2000. Finland, Denmark and Iceland were chosen as participants in this study due to similarities within the CNS roles. Although Norway and Sweden have APN roles, nurses in these roles do not always practice at an advanced clinical level and educational preparation for these roles varies (Maier et al., 2017; Manninen, 2018). Furthermore, Norway and Sweden have focused more on the development of nurse practitioner roles (Bergman et al., 2013; Boman et al., 2019). Therefore, nurses from Norway and Sweden

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

- Clinical nurse specialist (CNS) roles are being developed around the globe and countries implementing these roles will benefit from evidence, such as the use of competencies; aiming to standardise the role. As the research evidence on similarities in the CNS core competency across countries grows, we may examine whether shared CNS core competency descriptions would be achievable internationally.
- The study results are highly relevant to the international Advanced practice nursing (APN) community as research-driven efforts to develop CNS competency descriptions are scarce. Countries implementing new CNS roles may use our research to inform their work. The created CNS competency scale, tested for content and construct validity, may be utilised in benchmarking CNS core competency and policies within and across countries.

were not invited to participate in this study examining CNS roles. Within Denmark, Iceland and Finland, the minimum CNS education is at the master's level which includes 90 to 120 European Credit Transfer System (ECTS) credits. (Jokiniemi et al., 2019; Studienævnet for Sundhedsvidenskab, 2019; The Directorate of Health, 2019).

In Denmark, CNSs were in the early stages of development in the 1980s. In 2009, Danish Health Authorities described the CNS as a nurse who is graduate-prepared with in-depth clinical experience within a specific area of nursing (Sundhedsstyrelsen, 2009). There is, however, no legal protection of the CNS title, and nurses with education within different specialties and on different levels use the title of CNS. As the last development within this area, education as a Master's in Advanced Practice Nursing (120 ECTS) started in 2019 aiming to educate nurses to apply advanced nursing skills in complex situations (Studienævnet for Sundhedsvidenskab, 2019). Currently, there are around 300 CNSs in Denmark.

Before 1993, the Icelandic specialist role in nursing was based on older European models where education at times involved clinical training within the hospital setting. In 1993, a master's degree in nursing became a requirement to become a CNS in Iceland. (Björnsdóttir & Thome, 2006) After regulation changes in 2003 and 2012, a minimum two-year master's degree in an 'internationally recognized' sub-specialty of nursing (120 ECTS) and two years of full-time post-graduate clinical supervision is required to be certified as a CNS in a specialty recognised by the Directorate of Health. (The Directorate of Health, 2019). At least 100 nurses have attained CNS certification after the regulation change in Iceland in 2003.

In Finland, the CNS role is aligned with the internationally recognised CNS roles (Jokiniemi, 2014). Although the minimum training is a master's degree, there are no specific requirements or curriculum for CNS post-graduate programs which are between 90 and 120 ECTS. In addition, the CNS roles are not regulated, thus there is no title protection (Jokiniemi et al., 2019). Despite these challenges, a CNS subgroup was founded under the Finnish Association of Nurses in 2019 and the CNS competency development is well on its way with initial competency descriptions validated recently (Jokiniemi et al., 2018, 2019). By 2020, the CNS numbers continue to grow with around 100 CNSs working around the country primarily in hospital settings.

Although CNS roles are increasingly developed internationally, the CNS competency development dates to the late 20th century and have predominantly occurred in the United States and Canada (Jokiniemi et al., 2018). It is essential to understand CNS competency outside of these jurisdictions because CNSs require different competencies to respond and adapt to the educational and care needs of patients and professionals across specialties (Ladd et al., 2020). Competency development in Nordic countries has emerged in recent years (Jokiniemi et al., 2018, 2020); however, there is little research-driven knowledge reporting attempts to compare and validate CNS competencies across different countries. As countries are undergoing healthcare reform with system changes that include introducing APN roles (Schober et al., 2020), the aim of many organisations is to develop nurses' competency and roles (see e.g. Nordic Nurses Federations [NNF], 2020). Competencies are an essential foundation for effective practice, education and evaluation of the CNS role, therefore, benchmarking CNS core competency within and across countries will benefit role development, integration and standardisation and thus strengthen the CNS role in various contexts. In this article, we will describe the results of a study examining the use of CNS core competency by utilising the recently validated CNS core competency scale (Jokiniemi et al., 2020).

3 | METHODS

3.1 | Aim

The aim was to describe and compare CNS core competency use across three Nordic countries.

3.2 | Research Design

A descriptive correlational study, using an online self-report questionnaire, was conducted from May to September 2019 within Finland, Denmark and Iceland. The study was reported based on the Strengthening the Reporting of Observation studies in Epidemiology (STROBE) checklist. (Supplementary File 1).

3.3 | Participants

To be eligible for this study, participants had to be practising as a CNS and prepared at the master's or doctoral level. A census sample of CNSs was recruited through each country's nursing/clinical nurse specialist association. In Denmark, questionnaires were sent out to 277 self-identified CNSs by The Danish Nurses Association. In Iceland, questionnaires were sent out by the Subchapter of CNSs of the Icelandic Nurses Association to 77 registered CNSs. In Finland, 72 questionnaires were sent to members of the Finnish Nursing Association CNS subgroup. A total of 192 responses were obtained resulting in 45% response rate. Of these, 52 responses from Finland, 95 from Denmark and 37 from Iceland were included in the analysis (response rate=72, 35 and 48%, respectively).

3.4 | Data collection

Data were collected using an online self-report questionnaire and E-Survey software between May and September 2019.

3.5 | Validity and reliability

3.5.1 | Instrument

A validated 47-item CNS core competency scale (Jokiniemi et al., 2018, 2020) was used to compare CNS competency use in three Nordic countries. The questionnaire consisted of socio-demographic questions and a CNS core competency scale (CNS-CoCoS). The CNS-CoCoS was developed during a rigorous research process conducted between 2013 and 2018 (Jokiniemi et al., 2018). An exploratory factor analysis to test the construct validity of the scale in 2019 (Jokiniemi et al., 2020), resulted in a recommendation for a 47-item scale, including four role spheres of patient (12 items), clinical nursing leadership (8 items), organisation (17 items) and scholarship (10 items) (Figure 1). The scale was used to measure the use of CNS competency during a typical month on a 5-point, Likert-type scale (0-never, 1- rarely, 2-sometimes, 3-often and 4-always) basis. The Cronbach's alpha score of a coefficient for the CNS-CoCoS was 0.94 indicating strong internal consistency (Lance et al., 2006). The subscale scores ranged from 0.83 clinical nursing leadership competency, 0.91 patient competency, 0.92 organisation competency to 0.92 scholarship competency. Published scale, with

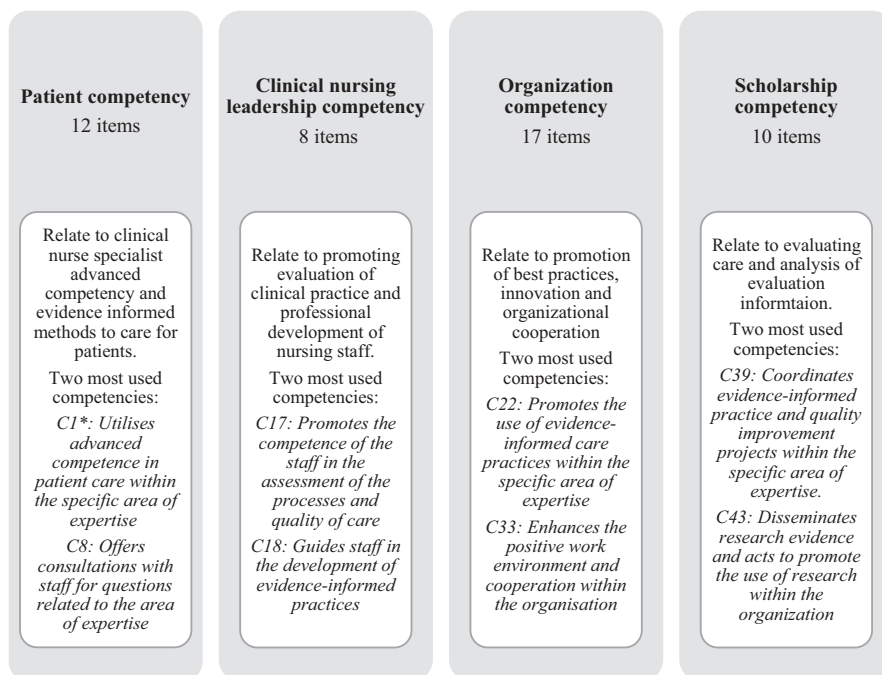


FIGURE 1 Outline of four spheres of CNS competency and examples of the two most used competency items. (See Jokiniemi et al., 2020). C=competency, *see competencies, numbered identically, within Jokiniemi et al., 2020

identical competency numbers to the present study, may be found in Jokiniemi et al., (2020).

3.5.2 | Instrument translations

A systematic two-step translation process was used to translate the survey (Squires et al., 2013). First, the survey was translated and back translated into English by two independent authorised translators from a professional translation services and checked for accuracy by the research team and English-speaking researcher. Thereafter, the survey was translated and back translated from English to Danish and Icelandic. Furthermore, the research team members, native in the translated languages, reviewed the translated versions of the questionnaire. (Jokiniemi et al., 2020).

3.5.3 | Pilot testing

The questionnaires were tested within each country with participants that met the inclusion criteria. A pilot test of the Finish ($n = 2$), Icelandic ($n = 3$) and Danish ($n = 3$) versions of electronic survey instrument was conducted to determine the time burden, clarity of the questionnaire and functionality of the hyperlink. All the questions were retained with minor revisions done to a few demographic questions and competency descriptions based on the pilot testing.

3.6 | Data analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS, version 25.0) (IBM Corp, 2017). For

socio-demographic data, descriptive statistics were used to summarise the characteristics of participants. For CNS-CoCoS, a sum of each competency was counted to illustrate their use and mean scores for each subscale were calculated. Group differences were compared using univariate analysis of variance with a p -value of less than 0.05 to establish significance. Statistically significant differences were further explored using the Tukey post hoc test (Yandell, 2017). Assumptions of ANOVA were tested (homoscedasticity, normality) prior to analysis. Finally, for the analysis and illustration of competency use, categories were re-grouped so that categories 'use competency often' and 'use competency all the time' were collated into 'use competency to a great degree, and categories 'use competency somewhat' and 'use competency rarely' were collated into 'use competency to some degree' resulting in a total of three categories.

Based on Littles' Missing Completely at Random (MCAR) test, data were missing completely at random ($p > .05$) and were therefore imputed with the Expectation-Maximization method (Allison, 2001). The missing items in two non-MCAR subscales, Icelandic 'scholarship subscale' ($p = .014$) and Danish 'nursing subscale' ($p = .014$), were checked against the mean scores. If the participant had not answered any of the subscale items, no data were imputed in the subscale. (Jokiniemi et al., 2020).

3.7 | Ethical considerations

The research has the University of Eastern Finland Committee on Research Ethics supporting statement (statement number 13/2018). Each country's nursing association/CNS association granted permission to conduct the research. Prospective participants were sent a researcher-prepared e-mail invitation to participate in the study, including the study information sheet and a link to the survey. The

participants were informed that completion of the e-survey was regarded as implied consent to participate in the study. Participants could withdraw from the study at any time, however, answers that participants provided were untraceable to the researchers and could not therefore be removed. (World Medical Association, 2013).

4 | RESULTS

4.1 | Characteristics of the participants

Of the 192 surveys returned, eight were excluded from the analysis based on incomplete item responses (e.g. no responses in three or more subscales). One hundred and eighty-four questionnaires were included in the final data analysis.

Most respondents were female with the average age of close to fifty years. Just over half came from Denmark, one-third from Finland and one fifth from Iceland. Over eighty per cent of the participants were master's prepared, and close to ten per cent were doctorally prepared. All Icelandic and Finnish participants had a minimum of master's degree. Other education among the Danish participants ($n=12$) included a baccalaureate or diploma in nursing. Participants had worked as a registered nurse (RN) an average of 15.2 years and as a CNS 6.1 years. The Icelandic CNSs mean age was the highest and they also had the longest work experience as RNs and CNS, whereas the Finnish CNSs were least experienced. Participant experience as a CNS was grouped into two groups: novice (0 to 3 years' experience) and expert (from 4 years and above experience). Approximately 40% were novice and 60% experienced

CNSs. Most CNSs worked in hospital settings (90.8%) in an urban community (95.1%). (Table 1) Other practice settings included working conjointly between the hospital and community/primary care.

4.2 | Comparison of competency use between countries

Overall, CNSs utilised organisational competency (mean 2.75 out of maximum score of 4) most frequently followed by patient competency (mean 2.36), clinical nursing leadership competency (mean 2.24) and scholarship competency (mean 2.20). The univariate analysis of variance test between-country effects, when CNS experience was taken into account, show statistically significant difference in patient competency ($p = .000$), with country accounting for 27% of the variability, and in organisational competency ($p < .05$) with country accounting for 5% of the variability. There were no statistically significant differences between countries in the clinical nursing leadership and scholarship competency with or without controlling the experience variable (Figure 2).

4.3 | Patient competency

All countries differed significantly from each other ($p = .000$) in the utilisation of the patient competency. In Denmark and Iceland, the CNSs utilisation of *patient competency* was high; however, Finnish CNSs used these competencies significantly less frequently. Overall, 52% of the participants reported utilising

TABLE 1 Demographic characteristics of the participants

Characteristic	All ($n = 184$)		Finland ($n = 52$)		Denmark ($n = 97$)		Iceland ($n = 37$)	
	n	%	n	%	n	%	n	%
Female	174	94.6	50	96.2	89	93.7	35	94.6
Highest level of education ($n = 184$)								
Master's	155	84.2	48	92.3	74	77.9	33	89.2
Doctoral	17	9.2	4	7.7	9	9.5	4	10.8
Other	12	6.5			12	12.6		
Practice setting ($n = 184$)								
Hospital	167	90.8	48	95.3	91	95.8	28	75.7
Primary care	1	0.5					1	2.7
Other	16	8.7	4	7.7	4	4.2	8	21.6
Experience ($n = 162$)								
Novice (<4 years as CNS)	68	42.0	22	51.2	37	43.5	9	26.5
Expert (≥ 4 years as CNS)	94	58.0	21	48.8	48	58.5	25	73.5
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age	48.9	9.1	49.3	7.9	46.7	9.5	53.6	7.6
Years worked as RN	15.22	9.3	14.6	8.2	13.3	8.8	20.8	10.1
Years worked as CNS	6.08	5.0	4.4	3.1	6.3	5.4	7.6	5.5

Abbreviations: CNS, clinical nurse specialist; RN, registered nurse.

Clustered Bar Mean Competency Use by Country

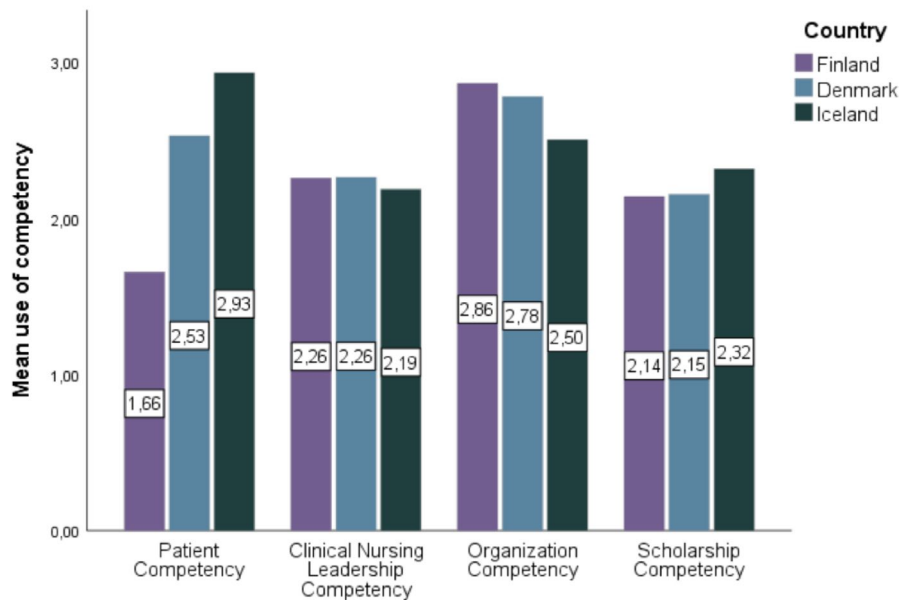


FIGURE 2 Clinical Nurse Specialist use of competencies between countries [Colour figure can be viewed at wileyonlinelibrary.com]

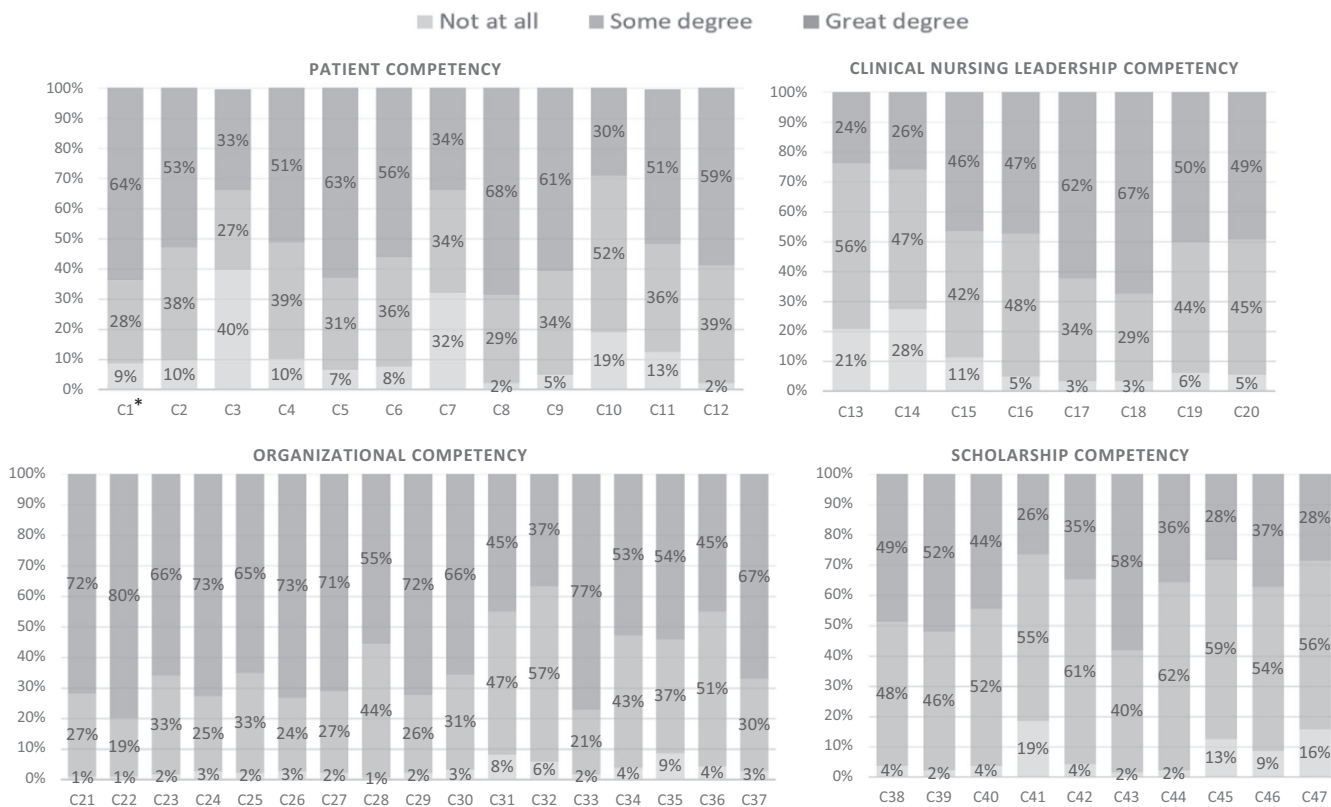


FIGURE 3 Variability of the use of competencies in different competency areas among studied countries. C=competency, * = see competencies, numbered identically, within Jokiniemi et al., 2020

patient competency to a great degree ranging from 33% in Finland to 57% in Denmark and 68% in Iceland. Overall examination of competency utilisation revealed that competency 'Offers consultations with staff for questions related to the area of expertise' (competency [C] 8) was the most frequently used, which 68% of the participants reported using to a great degree. In turn, the two

least frequently used competencies were 'Carries out independent reception operations within the specific area of expertise' (C3) which 40% of the participants reported not using, and 'Coordinates the overall care of patients with complex care needs' (C7) which 32% of participants reported not using (Figure 3) (see also Jokiniemi et al., 2020).

4.4 | Clinical nursing leadership competency

Variability of the clinical nursing leadership competency was small, with mean ranging from 2.19 in Iceland to 2.26 in Finland and Denmark (Figure 2). Altogether, 46% of the participants reported utilising these competencies to a great degree, 43% to some degree and 10% not at all. The most frequently utilised competency was 'Guides staff in the development of evidence-informed practices' (C18) which 67% of the participants reported using to a great degree 29% to some degree and 3% not at all. Competency 'Designs learning plans for the nurses together with the unit supervisor' (C14) was the least used, which 28% of the participants reported not using, 47% used to some degree and 26% to a great degree (Figure 3).

4.5 | Organisational competency

Combined, 63% of the organisational competency were used to a great degree, 34% to some degree and 3% not at all by the participants. Univariate analysis of variance test between-country effect on organisational competency was statistically significant. The Tukey post hoc test shows Finnish CNSs utilising these competencies significantly more than Icelandic CNSs ($p < .05$). Overall, competency 'Promotes the use of evidence-informed care practices within the specific area of expertise' (C22) was used to a great degree by 80% of the participants. Whereas 'Uses information on critical incidents for improving the safety of the staff and patients' (C35) was competency that was not used at all by 9% of the participants, however, 37% used this competency to some and 54% to a great degree (Figure 3).

4.6 | Scholarship competency

Finally, the scholarship competency was the least utilised with 39% reporting using this competency to a great degree, 53% to some degree and 7% not at all. The most utilised competency was 'Disseminates research evidence and acts to promote the use of research within the organization' (C43) with 58% utilising this competency to a great degree and 40% to some degree. The least frequently used competency was 'Participates in national and international multidisciplinary research and development projects' (C=41) with 19% not utilising, 55% utilising to some degree and 26% utilising the competency to a great degree in their work during a typical month. Variability between observed countries was small among these competencies (Figure 2, Figure 3).

5 | DISCUSSION

In this article, we described and compared the CNS use of competency with the recently validated CNS core competency questionnaire (Jokiniemi et al., 2018, 2020) across three Nordic countries.

CNSs were the most experienced in Iceland which is in line with the rather early CNS role development there (Björnsdóttir & Thome, 2006). Changes in CNS roles are to be expected, particularly in the early years, as these roles mature in healthcare systems. Against this background, we expected some variation on the use of CNS core competency. To our knowledge, the CNS competencies have not been studied across countries within Europe before. Furthermore, the research-driven knowledge on CNS competency is scarce around the globe. Previous research by Jokiniemi et al. (2018) found similarities in the CNS core competency within the existing CNS competency sets, namely the US (Baldwin et al., 2007), Canada (CNA, 2014) and Finland (Jokiniemi et al., 2018), therefore, highlighting the need to examine whether CNSs utilise similar competency across countries and whether shared CNS core competency descriptions would be achievable.

Regardless of country, the *organisational competency* was most used by the CNSs. Emphasis of CNS organisational sphere is a finding supported by previous literature, positioning the CNSs well to influence and move between the system, patient and nursing staff levels to attain the best possible outcomes (Mayo et al., 2017; Mohr & Coke, 2018). Engagement in system-level activity is associated with the decreased feeling of invisibility for CNSs (Fulton et al., 2019). *Patient competency*, which is at the heart of CNS role (Fulton et al., 2016; Lewandowski & Adamle, 2009), was overall the second most utilised competency in our study. Although highly used in Denmark and Iceland, the patient competency was the least utilised competency area in Finland, confirming prior research results indicating Finnish CNSs challenge in operating the clinical/patient role (Jokiniemi, 2014). A decrease in the CNS involvement in direct clinical care appears evident in other countries beyond this study (Dawson & Coombs, 2008; Kilpatrick et al., 2013). A US consensus study found that the CNS's use of time in direct patient care came down from 25% from 2014 to less than 10% in 2018 (National Association of Clinical Nurse Specialists, 2015, 2018). The decrease in the time spent in the direct patient care is concerning and reinforces the perception that CNS roles are invisible (Fulton et al., 2019; Jokiniemi et al., 2015). Therefore, support for CNS role in patient care is much called for and remains an ongoing challenge (Fulton et al., 2019). Nearly 50% of the participants utilised *clinical nursing leadership* competency to a great degree. Aligned with our study, CNSs have been found to work in collaboration to ensure evidence-based care and best outcomes, coordinate team activity, as well as lead teams in designing and implementing innovative solutions and promoting change within diverse healthcare settings. (Elliott, 2013; Kilpatrick et al., 2013; Mayo et al., 2017). Finally, *scholarship competency* was used infrequently. This result is in line with the US CNSs involvement in research, which has steadily been around 10% during the past few years (National Association of Clinical Nurse Specialists, 2015, 2018). To strengthen the CNS role in complex patient care, leading teams, improving patient and system outcomes, as well as using and generating evidence, it is imperative that CNSs have a strong foundation of scholarship competency.

The APN roles vary somewhat between different countries with the traditional CNS role focusing more on system-level work (Mohr & Coke, 2018; Sheer & Wong, 2008). It is inevitable, however, that CNSs require advanced competency to achieve the requirements and expectations of the role (Mayo et al., 2017). Despite more than 60 years of CNS role development, the competency development has emerged rather recently and mostly in North America. However, international CNS competency descriptions will enable the strengthening of the evidence base for CNS practice by enabling the conceptualisation and standardisation of the role thus offer means to optimise their competency (Gardner et al., 2014). By validated competency frameworks, such as the CNS-CoCoS (Jokiniemi et al., 2020), we may illustrate the diversity of the CNS roles while positively impacting on the role clarity and development of new CNS roles (Jokiniemi et al., 2018).

To support the CNS role development and education, it is important to elaborate and examine the possibility of shared core competency descriptions for the CNSs. The small variability of competency use is encouraging in terms of the future development of shared CNS core competencies. Therefore, the study findings support the usability of CNS-CoCoS, especially within the Nordic countries highlighting CNS influence on the following four spheres: the patient, clinical nursing leadership, organisation and scholarship.

5.1 | Study limitations and implications for future research

The study sample was adequate for the study methodology; however, the sample is rather small, reflecting the number of CNS positions in the studied countries. Furthermore, we acknowledge the difficulty of recognising comparable CNS roles within Nordic countries. Although some CNS roles within Norway and Sweden may exist, these countries were not invited to participate in the study, decision made based on literature and personal communication with experts in these countries. The CNS roles are in the early developmental stages, with some variability in the role requirements, training and the scope of practice in the participating countries. Despite these challenges, the CNS-CoCoS has undergone content and construct validity study within three Nordic countries, and it has been cross-mapped against the United States and Canadian competency sets. We have provided initial research evidence on the consistency of CNS competency use across Nordic Countries. As the healthcare systems in the Nordic countries share many similarities (Olsen et al., 2016), the CNS core competencies should be studied in wider contexts beyond this study to validate its validity (content, construct and criterion) and reliability (internal consistency, test-retest) in other cultures. Future research implementing new CNS roles and examining CNS competency may use our research to inform their work in benchmarking CNS core competency within and across countries.

6 | CONCLUSION

CNS roles are being developed around the globe and countries implementing these roles will benefit from evidence, such as the use of competencies, aiming to standardise the role. The results of this study provided research evidence of the CNS use of four competency spheres of patient, nursing, organisation and scholarship across three Nordic countries. The Nordic Nurses Federations (NNF) have a long and formalised collaboration. One of the NNF objectives is to develop nurses' competency and roles, thus the NFF could use our study to inform this work. Furthermore, the study results are highly relevant to the international APN community. The CNS-CoCoS, tested for content and construct validity, may be utilised in benchmarking CNS core competency and policies within and across countries. The long-term goal for the competency descriptions is to enhance the CNS role clarity and ultimately the integration and evaluation of CNS roles and post-graduate education. As the research evidence on similarities in the CNS core competency across countries grows, we may examine whether shared CNS core competency descriptions would be achievable internationally.

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CONFLICT OF INTEREST

No conflict of interest has been declared by the author(s).

AUTHOR CONTRIBUTIONS

Substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data, and drafting the manuscript or revising it critically for important intellectual content and 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, agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. KJ, BHH, GKK, KF, KK and SM.

DATA AVAILABILITY STATEMENT

Research data are not shared.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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