



Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

Transitional Care Nurses' Self-Reported Characteristics of Work Areas, Job Satisfaction, Competencies and Need for Further Training: A Cross-Sectional Study

Møller, Nicoline; Geil Kollerup, Mette; Lerbæk, Birgitte; Berthelsen, Connie

Published in:
Integrative Journal of Medical Sciences

DOI (link to publication from Publisher):
[10.15342/ijms.2022.593](https://doi.org/10.15342/ijms.2022.593)

Creative Commons License
CC BY 4.0

Publication date:
2022

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):
Møller, N., Geil Kollerup, M., Lerbæk, B., & Berthelsen, C. (2022). Transitional Care Nurses' Self-Reported Characteristics of Work Areas, Job Satisfaction, Competencies and Need for Further Training: A Cross-Sectional Study. *Integrative Journal of Medical Sciences*, 9, Article 593. <https://doi.org/10.15342/ijms.2022.593>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

2022, Volume 9, ID 593

DOI: [10.15342/ijms.2022.593](https://doi.org/10.15342/ijms.2022.593)

RESEARCH ARTICLES

Transitional Care Nurses' Self-Reported Characteristics of Work Areas, Job Satisfaction, Competencies and Need for Further Training: A Cross-Sectional Study

Nicoline Møller ^a , Mette Geil Kollerup ^b , Birgitte Lerbæk ^b , Connie Berthelsen ^{a,c} 
^a Zealand University Hospital, Denmark; ^b Aalborg University Hospital, Denmark; ^c University of Southern Denmark

ABSTRACT

Introduction: Transitional care for older people with multiple chronic conditions is complex, and it is essential to identify the competencies of the nurses who provide such care. **Aim:** This study aimed to describe and compare the self-reported characteristics of transitional care nurses to their work areas, job satisfaction, competencies, and need for further training. **Methods:** A cross-sectional study design was used, and STROBE was followed for reporting. The total population of transitional care nurses (n=28) in Denmark was invited to participate. Data were collected through a questionnaire covering work areas, job satisfaction, competencies, and the need for further training. **Results:** Respondents reported high confidence in competencies related to direct clinical practice, cooperation and consultation, caregiver involvement, and use of electronic communication, and a limited need for further training. Expert transitional care nurses have high confidence in their work competencies related to patients and administrative tasks and increased job satisfaction.

KEYWORDS: Transitional care nurses, cross-sectional, competencies, job satisfaction

Correspondence: Dr. Connie Berthelsen. Address: Zealand University Hospital, Denmark. Email: cobe@regionsjaelland.dk

Copyright © 2022 Møller N et al. This is an open access article distributed under the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

The population of older people with chronic conditions increases worldwide [1, 2] in Denmark, one-third of the population is diagnosed with two or more coexisting chronic conditions [3]. The healthcare system is thus tasked with caring for an increasing number of older individuals with multiple chronic conditions [3]. The trajectories of older people with various chronic conditions are complicated by deficits in activities of daily living or risk factors such as social barriers. These individuals also experience challenges in managing their healthcare needs across hospital and municipal healthcare settings [4]. Therefore, it is essential to identify effective strategies to improve care transitions and outcomes for this population [4] and to identify healthcare professionals' required knowledge and skills to deliver effective transitional care [5].

Transitional care denotes the wide variety of time-limited services designed to ensure health care continuity and avoid preventable poor outcomes among at-risk populations as they move from one level of care to another, among multiple providers, and across settings [5, 6]. According to Naylor and Van Cleave [6], a transitional care nurse (TCN) holds advanced knowledge and skills to care for vulnerable older people with chronic conditions.

TCNs aim to provide care across settings in order to comply with individual and family caregiver needs, improve health outcomes and quality of life, and prevent frequent use of acute care and rehospitalization [6]. TCNs facilitate and are responsible for the complex transitions between hospital- and community-based care for older citizens with multiple chronic conditions [6].

Despite years of research into transitional care and related nursing roles, variations and lack of clarity about the characteristics of these nursing practices prevail. Furthermore, there is a lack of knowledge on TCNs' experiences and descriptions of their work tasks and consensus in the literature about how to describe and name the role of the nurses who facilitate transitional care [7, 8]. Therefore, this study aimed to describe and compare the self-reported characteristics of transitional care nurses to their work areas, job satisfaction, competencies, and need for further training.

MATERIALS AND METHODS

Design

A cross-sectional study design [9] was used to investigate and describe population characteristics at one point in time. The Strengthening the Reporting of Observational

Studies in Epidemiology (STROBE) statement guidelines for reporting observational studies [10] were used to report this study.

Participants and settings

The total population of TNC's (n=28) in the Danish region where the study was carried out were invited to participate in the survey in January 2021. They were employed at a university hospital (n=17) or in the hospitals' uptake area municipalities (n=11). The TCNs held different positions such as discharge coordinators, community care planners, ward managers, hospital coordinators. All were assigned the additional TCN role due to extensive work with transitional care trajectories. The TCNs did not receive any special education or training before taking on the TCN role, and their working conditions and experiences varied.

Measures

Data of the TCNs' work areas, job satisfaction, competencies, and need for further training were collected using a questionnaire based on three validated questionnaires [4, 11, 12] and demographic characteristics.

Demographic characteristics

Demographic characteristics included gender, age, years of tenure as a nurse, ongoing and/or completed education other than nursing school, and the place, position, and length of their current employment.

Work areas

Work areas were assessed using Hirschman and colleagues' nine Transitional Care Core Components: screening, staffing, maintaining relationships, engaging patients and family caregivers, assessing and managing risks and symptoms, educating and promoting self-management, collaborating, promoting continuity, and fostering coordination [4]. Responses were measured on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), with higher scores reflecting higher levels of agreement.

Job satisfaction

Job satisfaction was measured using the Job Satisfaction Scale (JSS) [11]. The scale consists of 15 items covering satisfaction with physical work conditions, colleagues, management, freedom in their work, recognition, responsibility, pay, opportunities, promotion possibilities, working hours, and job security [11]. Job satisfaction was measured on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), with higher scores reflecting more significant agreement.

Competencies and need for further training

Self-reported competencies to manage clinical core components were measured using the Professional Nurse Self-Assessment Scale (PROFFNurseSASII) [12, 13]. The scale consists of 50 items in six focus areas to avoid questions superfluous to the study aim. Only three out of the six focus areas were utilized for this survey: direct clinical practice (15 items), cooperation and consultation (6 items), and caregiver involvement and use of electronic communication (6 items). The selected 27 items were measured on two scales: 1) A-scale, covering the TCNs' self-assessment of competencies to handle the clinical core components, measured on a 10-point Likert scale from 1 (low level of competence) to 10 (high level of competence); 2) B-scale covering the TCNs' perceived needs for further training to handle the clinical core

components, measured on a 10-point Likert scale from 1 (low level of need) to 10 (high level of need).

Validation of the final questionnaire

The final questionnaire consisted of 63 items. To strengthen validity [9] the questionnaire was sent to two nurses working with transitions and discharge in another region of Denmark for face and content validity. Their comments and corrections led to minor alterations in the questionnaire to consider translation issues after discussion and consensus amongst the authors.

Data collection

The TCNs individually received a link to the questionnaire in an email through SurveyXact (www.surveyxact.dk), and data were collected in February 2021. After one and two weeks, a reminder was emailed to those who had not replied.

Data analysis

Data were managed using descriptive statistics. The first author conducted the analysis using SPSS version 25.0 (IBM SPSS Statistics for Windows, Armonk, NY: IBM Corporation). When appropriate, demographic characteristics are presented as numbers and percentages, with range, mean and standard deviation (SD). The results are presented as the mean and SD of the Likert-scale measures for work areas, clinical core component competency, and job satisfaction. Furthermore, the differences in mean scores between TCNs employed in the hospital versus municipal care settings were described.

Ethical considerations

The study was approved by the Danish Data Protection Agency (Reg-146-2020). When the TCNs received the link for the questionnaire, they were informed in writing about their legal and ethical rights. By replying to the questionnaire, the TCN's provided consent for participation.

RESULTS

Twenty-three TCNs (82.1%) responded to parts of the questionnaire, and 18 (64.3%) completed the questionnaire. Of the remaining five, two were on long-term leave, and three did not access the questionnaire.

Demographic characteristics

The TCNs were on average 44.22 years of age, ranging from 28 to 62 years. On average, respondents' tenure as nurses was 16.39 years (Table 1).

Two TCNs (9%) completed an education after nursing school; a bachelor's degree and a master's degree, respectively. One nurse (4%) was undergoing further education at the bachelor's degree level. The TCNs were employed in a hospital (70%) or in a municipal care facility (26%); one TCN was employed in both (4%). The majority of TCNs had been employed in their current positions for less than two years (65%); six TCNs had been in their current position for three to six years (26%), and two TCNs had been in their positions for more than ten years (9%) (Table 1).

TCN work areas

The work areas data analysis revealed that overall, TCNs employed at the hospital reported a higher agreement (5.61) with the work area statements than the TCNs from the municipal settings (3.94), measured on a 7-point Likert scale. The mean score was 5.24 in all nine work areas (Table 2).

Table 1: Demographic characteristic of the TCNs (n=23)

Variable	Range(x-x); mean±sd
Age (years)	(28–62); 44.22 ± 9.70
Tenure as nurse (years)	(1 – 38); 16.39 ± 9.79
Ongoing education at present after nursing studies	n (%)
No	22 (96%)
Yes	1 (4%)
Bachelor degree	1 (4%)
Full education after nursing school	n (%)
No	21 (91%)
Yes	2 (9%)
Bachelor degree	1 (50%)
Master degree	1 (50%)
Current employed in	n (%)
Hospital department	16 (70%)
Municipal setting	6 (26%)
Both*	1 (4%)
Years in current position	n (%)
< 1 year	9 (39%)
1 – 2 years	6 (26%)
3 – 4 years	4 (17%)
5 - 6 years	2 (9%)
7 – 8 years	0
9 – 10 years	0
> 10 years	2 (9%)

*The TCN employed in both settings is included in the total count

**The TCN employed in both setting is included in the total count to secure anonymity.

The TCNs had the highest work area agreement on the core component of "fostering coordination" (6.22) and second-highest on "screening" (6.17). These core components also received the highest mean scores among hospital TCNs. The work area statements on "fostering coordination" (5.33) and "promoting continuity" (5.17) had the highest agreement among the municipal-employed TCNs. The lowest total mean score was reported for the core component "staffing" (3.43) (Table 2).

Job satisfaction

The mean score of the TCNs' job satisfaction score was 5.71 measured on the 7-point Likert scale, with the highest scores reported for satisfaction with fellow workers (6.50), immediate boss (6.17), opportunities to use abilities (6.11), the attention paid to their suggestions (6.11), and their job security (6.06) (Table 3).

The TCNs' lowest measures area of job satisfaction were in opportunities for promotion (4.39) and rate of pay (4.17) (Table 3).

Competencies and need for further training

The TCNs' self-assessed competencies and need for further training, measured on a 10-point Likert scale, are displayed in Table 4 following the main components of "Direct clinical practice," "Cooperation and consultations," and "Caregiver involvement and use of electronic communication" (Table 4)

The TCNs' self-assessed scores for handling the clinical core components of "Direct clinical practice" were consistent and above the average score of 5 in self-assessed competencies and lower than five on the need for further training. In total, the TCNs assessed their competencies in direct clinical practice to be 6.87 on average, with a mean score of 6.80 for hospital TCNs and 6.58 for those in municipal settings. Indicating high confidence among the TCNs related to their ability to perform these tasks. The TCNs' highest self-assessed competency for the total counts was related to the core component of "I apply both subjective and objective methods when examining, treating and caring for patients." The lowest self-assessed competency was related to the core component of "I have knowledge of the interactions of various types of medication and what side-effects they may cause for the patients I am responsible for." TCNs' self-assessed need for training in the "Direct clinical practice" component was 4.83 on average in the total count, 5.07 for hospital nurses, and 4.40 for those in municipal settings (Table 4).

Table 2: TCN work areas based on the nine core components of transitional care (n=23)*

	Total mean ± sd (N=23)**	Hospital mean ± sd (N=16)	Municipality mean ± sd (N=6)
SCREENING: I target adults transitioning from hospital to home who are at high risk for poor outcomes	6.17 ± 1.64	6.63 ± 0.81	4.83 ± 2.64
STAFFING: I assume primary responsibility for care management throughout episodes of acute illness	3.43 ± 2.09	3.81 ± 1.87	1.83 ± 1.60
MAINTAINING RELATIONSHIPS: I establish and maintain a trusting relationship with the patient and family caregivers involved in the patients' care	5.48 ± 1.86	5.94 ± 1.48	4.00 ± 2.19
ENGAGING PATIENTS AND CAREGIVERS: I engage older adults in the design and implementation of the plan of care aligned with their preferences, values, and goals	4.91 ± 2.13	5.31 ± 1.66	3.50 ± 2.81
ASSESSING/MANAGING RISKS AND SYMPTOMS: I identify and address the patient's priority risk factors and symptoms	5.61 ± 1.67	5.81 ± 1.47	4.83 ± 2.14
EDUCATING/PROMOTING SELF-MANAGEMENT: I prepare older adults and family caregivers to identify and respond quickly to worsening symptoms	4.78 ± 1.93	5.25 ± 1.24	3.17 ± 2.64
COLLABORATION: I promote consensus on a plan of care between older adults and members of the care team	4.70 ± 1.84	5.25 ± 1.39	2.83 ± 1.72
PROMOTING CONTINUITY: I prevent breakdowns in care from hospital to home by having the same clinician involved across these sites	5.83 ± 1.64	6.00 ± 1.63	5.17 ± 1.72
FOSTERING COORDINATION: I promote communication and connections between healthcare and community-based practitioners	6.22 ± 1.41	6.50 ± 1.15	5.33 ± 1.86
Total mean score	5.24 ± 1.80	5.61 ± 1.41	3.94 ± 2.15

* Measured on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). ** The TCN employed in both setting is included in the total count to secure anonymity.

Table 3: TCN job satisfaction (n=18)*

I am satisfied with:	(mean ± sd)
The physical work conditions	5.67 ± 1.03
The freedom to choose my own method of working	5.56 ± 1.34
My fellow workers	6.50 ± 0.86
The recognition I get for good work	5.83 ± 1.58
My immediate boss	6.17 ± 1.25
The amount of responsibility I am given	5.67 ± 1.37
My rate of pay	4.17 ± 1.82
My opportunity to use my abilities	6.11 ± 0.90
Industrial relations between management and workers at my firm	6.00 ± 1.33
My chance of promotion	4.39 ± 1.42
The way my firm is managed	5.67 ± 1.50
The attention paid to suggestions I make	6.11 ± 1.28
My hours of work	5.83 ± 1.15
The amount of variety in my job	5.89 ± 1.28
My job security	6.06 ± 1.47
Total mean of all job satisfaction scores	5.71 ± 1.30

*Measured on a seven-point Likert-scale from 1 (strongly disagree) to 7 (strongly agree)

The TCNs' highest self-assessed competencies were measured in the main component of "Cooperation and

consultations," with 7.60 on average and a mean score of 7.47 for hospital TCNs and 7.61 for municipal TCNs. The highest self-assessed competency for the total counts was 8.89 on average in the core component of "I consult other professional experts when required," and the lowest self-assessed competency for the full count (6.06) was "I experience a division of responsibility between the physician and me as a nurse." The self-assessed need for training in "Cooperation and consultations" was 3.86 on average in the total count, 3.58 for TCNs at hospitals, and 4.28 for TCNs in municipal settings (Table 4).

In total, TCNs assessed their competency in "Caregiver involvement and use of electronic communication" to be 5.92 on average, with a mean score of 5.62 for hospital TCNs and 6.47 for TCNs in municipal settings. The highest self-assessed competency for the total counts was 7.17 on average in the core component of "I focus on relatives' need for support and guidance." The lowest self-assessed competency for the total count (5.06) was "I assess the patients' health via telephone, email or other digital solutions." The self-assessed need for training in "Caregiver involvement and use of electronic communication" was 3.41 on average in the total count, 3.14 for hospital TCNs, and 3.72 for municipal TCNs (Table 4).

Table 4: Self-assessment of TCN competencies to handle clinical core components and need for further training*

	Total (n=18)**		Hospital (n=11)		Municipality (n=6)	
	Competencies (mean ± sd)	Need for training (mean ± sd)	Competencies (mean ± sd)	Need for training (mean ± sd)	Competencies (mean ± sd)	Need for training (mean ± sd)
DIRECT CLINICAL PRACTICE (n=15)	6.87 ± 2.24	4.83 ± 2.28	6.80 ± 2.06	5.07 ± 2.23	6.58 ± 2.51	4.40 ± 2.47
I am independently responsible for health assessment, examinations, and treatment of patients with complicated medical conditions	7.00 ± 1.94	5.67 ± 2.57	7.09 ± 2.02	6.09 ± 2.77	6.50 ± 1.87	5.00 ± 2.45
I am independently responsible for health assessment, examinations and treatment of patients with uncomplicated medical conditions	6.44 ± 1.85	5.39 ± 2.57	6.55 ± 1.97	5.64 ± 2.84	6.50 ± 1.87	5.00 ± 2.45
I plan and prioritize nursing and medical interventions	7.22 ± 2.29	4.67 ± 2.30	7.18 ± 2.04	5.18 ± 2.23	6.83 ± 2.79	4.33 ± 2.16
I identify patient's health problems	7.33 ± 2.25	4.56 ± 1.95	6.91 ± 2.34	4.91 ± 2.17	7.67 ± 2.07	3.83 ± 1.60
I assess patient's symptoms	6.89 ± 2.56	4.50 ± 2.15	6.82 ± 2.23	5.00 ± 1.95	6.50 ± 3.21	3.50 ± 2.51
I evaluate and modify patients' medical treatment	5.72 ± 2.52	5.00 ± 2.54	5.18 ± 2.23	5.73 ± 2.41	6.17 ± 2.93	3.67 ± 2.66
I exclude differential diagnoses when assessing patients' health conditions	6.39 ± 2.28	4.72 ± 2.27	6.45 ± 1.63	5.00 ± 1.95	5.67 ± 3.01	4.17 ± 3.06
I interpret, analyse and reach alternative conclusions about patients' health conditions after a detailed mapping of health history and health assessment (physical examination)	7.50 ± 2.09	4.89 ± 2.08	7.73 ± 1.10	5.00 ± 2.00	6.67 ± 3.20	4.67 ± 2.58
I apply both subjective and objective methods when examining, treating and caring for patients	7.72 ± 1.64	4.39 ± 2.00	7.55 ± 1.57	4.27 ± 1.85	7.67 ± 1.75	4.50 ± 2.59
I utilize medical equipment in an appropriate and accurate manner	7.06 ± 2.67	4.72 ± 2.27	7.45 ± 2.46	3.91 ± 1.45	5.83 ± 2.86	6.17 ± 3.06
I have knowledge of the effects of medication and treatment for the patients I am responsible for	6.61 ± 2.25	4.72 ± 2.19	6.64 ± 2.38	4.82 ± 2.27	6.00 ± 1.79	4.50 ± 2.43
I identify deviations in the patients' state of health and state of disease	7.33 ± 2.59	4.50 ± 2.09	6.91 ± 2.51	4.45 ± 2.02	7.67 ± 2.88	4.50 ± 2.59
I develop and administer health-promoting and illness-preventive actions for patients	6.83 ± 2.01	5.06 ± 2.26	6.82 ± 1.99	5.64 ± 2.42	6.33 ± 1.86	4.00 ± 1.90
I systematically gather information from each patient about his/her health resources	7.33 ± 2.45	4.72 ± 2.32	6.91 ± 2.39	5.09 ± 2.43	7.67 ± 2.66	4.00 ± 2.37
I have knowledge of the interactions of various types of medication and what side-effects they may cause for the patients I am responsible for	5.61 ± 2.28	4.94 ± 2.58	5.82 ± 2.04	5.36 ± 2.66	5.00 ± 2.90	4.17 ± 2.71

* Measured on a 10-point Likert-scale from 1 (low level of competencies/need for training) to 10 (high level of competencies)/need for training. **The TCN employed in both setting is included in the total count to secure anonymity.

Table 4 (continued): Self-assessment of TCN competencies to handle clinical core components and need for further training*

	Total (n=18)**		Hospital (n=11)		Municipality (n=6)	
	Competencies (mean ± sd)	Need for training (mean ± sd)	Competencies (mean ± sd)	Need for training (mean ± sd)	Competencies (mean ± sd)	Need for training (mean ± sd)
COOPERATION AND CONSULTATIONS (n=6)	7.60 ± 2.54	3.86 ± 2.37	7.47 ± 2.85	3.58 ± 2.28	7.61 ± 1.82	4.28 ± 2.71
I experience a division of responsibility between the physician and me as a nurse	6.06 ± 2.67	4.22 ± 2.32	6.36 ± 3.01	3.91 ± 1.92	5.67 ± 2.34	4.67 ± 3.20
I cooperate well with the physician	7.56 ± 2.62	4.11 ± 2.72	8.18 ± 2.52	3.45 ± 2.42	6.00 ± 2.37	4.83 ± 3.19
I consult other professional experts when required	8.89 ± 2.08	3.67 ± 1.91	8.64 ± 2.62	3.36 ± 1.86	9.17 ± 0.75	4.00 ± 2.19
I cooperate actively with other health professionals when coordinating the patient's nursing, care and treatment	8.56 ± 2.25	3.28 ± 2.02	8.09 ± 2.77	2.91 ± 1.76	9.17 ± 0.75	4.17 ± 2.48
I am cognizant of when my medical knowledge is insufficient when assessing patients' health conditions	8.39 ± 2.28	4.50 ± 2.85	8.09 ± 2.63	4.73 ± 3.20	8.67 ± 1.75	4.17 ± 2.64
I document the steps taken in assessing patients' needs for nursing, care and treatment	6.17 ± 3.33	3.39 ± 2.40	5.45 ± 3.56	3.09 ± 2.51	7.00 ± 2.97	3.83 ± 2.56
CAREGIVER INVOLVEMENT AND USE OF ELECTRONIC COMMUNICATION (n=6)	5.92 ± 2.95	3.41 ± 2.16	5.62 ± 2.89	3.14 ± 1.92	6.47 ± 2.10	3.72 ± 2.15
I assess the patients' health via telephone, email or other digital solutions	5.06 ± 3.54	3.28 ± 2.22	3.64 ± 3.41	2.27 ± 1.27	8.17 ± 1.17	4.50 ± 2.59
I give health-promoting advice and recommendations to patients via telephone, email or other digital solutions	4.50 ± 3.29	2.94 ± 2.29	3.18 ± 3.22	2.09 ± 1.58	7.33 ± 1.21	3.67 ± 2.34
I give health promotion and illness-preventive recommendations in accordance with national guidelines to patients	6.39 ± 2.79	4.56 ± 2.36	7.27 ± 2.41	5.09 ± 2.43	4.33 ± 2.58	4.00 ± 2.19
I have a supportive ongoing dialogue with patients about their needs and wishes	6.67 ± 2.91	3.17 ± 1.86	6.82 ± 2.71	3.18 ± 1.89	5.83 ± 3.31	3.50 ± 1.87
I focus on relatives' need for support and guidance	7.17 ± 2.12	3.56 ± 1.76	7.09 ± 2.39	3.64 ± 1.91	6.83 ± 1.47	3.67 ± 1.63
I report all incidents in accordance with the actual patient safety system	5.72 ± 3.06	2.94 ± 2.48	5.73 ± 3.20	2.55 ± 2.46	6.33 ± 2.88	3.00 ± 2.28

* Measured on a 10-point Likert-scale from 1 (low level of competencies/need for training) to 10 (high level of competencies)/need for training. **The TCN employed in both setting is included in the total count to secure anonymity.

DISCUSSION

This survey provided new knowledge regarding the TCNs' self-reported work areas, job satisfaction, competencies, and need for further training. The results revealed differences between TCNs' self-reported characteristics according to their employment setting, as the hospital TCNs reported higher average mean scores than TCNs in municipal care settings. The following sections address the observed differences within the studied domains.

Although TCNs' work areas aligned well overall with the components in the Transitional Care Model [4], differences were observed between TCNs in hospitals (5.61) and community care (3.94). This might indicate more diversity and less standardization of duties in community-based settings. This is further underpinned by higher SD found in scores from TCNs employed in the community setting. Five out of six community-employed TCNs attended to administrative tasks rather than direct patient care, which might explain the diversity in the results. Administrative functions in community-based care have increased [14, 15,] and community care services are presently allocated by municipal authorities [16]. According to the Nordic Welfare Model [16], Danish municipalities are obligated to provide health and social care to everyone in need, regardless of their financial situation, social status, age, gender, or family situation. Some of the community-employed TCNs worked in positions that were not focused on direct nursing care, which might explain the generally lower ratings of work areas for municipal TCNs. The results might have been different if the community-employed TCNs had been more involved in direct patient care. This was supported by the results showing that the highest-rated work area for community-employed TCNs was the administrative

function 'I prevent breakdowns in care from hospital to home,' while items related to direct patient care such as 'establish and maintain a trusting relationship,' 'engage older adults, and 'prepare older adults' were rated lower. By contrast, most hospital TCNs held the position of discharge coordinator, working in specific hospital wards. This allowed them to be physically present with patients, which might have resulted in higher ratings regarding 'engage with,' 'prepare' and 'establish relationships.' Overall, TCNs assessed their competencies in direct clinical practice above five on a 10-point scale. In addition, their perceived need for training in this realm was below five. This could indicate that the TCNs had high confidence in their competency in managing transitional care for patients. The confidence could stem from the average clinical experience of 16.4 years, based on which the respondents could be characterized as clinical experts [17]. This experience level implies an in-depth understanding of the holistic patient situation, guiding nursing practice above and beyond rules and principles [17]. Laws and principles provide essential guidance for novice nurses; however, the TCN function was new in this setting, and its rules and principles were not established [7]. When moving into a new field of practice, even experienced nurses have to practice at a lower level of experience [17]. Surprisingly, hospital-employed TCNs reported a higher need for "Direct clinical practice" training than the community-employed TCNs. This could be due to the predominantly administrative tasks of the community-employed TCNs, who assessed direct clinical competencies as less critical. A study by Eriksson and colleagues [15] found that an increase in healthcare administrative tasks divert time and focus from more clinically important activities such as patient care.

The low need for training reported to "Cooperations and consultations" could result from TCNs' high assessment of competencies in this area. In this area, the highest-rated competencies among all TCNs were "I consult other professional experts when required" and "I cooperate actively with other health professionals when coordinating the patient's nursing, care, and treatment." Collaboration with other health professionals is considered necessary in the transitional care of older citizens [4, 6, 7]. Hirschman and colleagues [4] describe how consensus on care plans for older individuals relies upon multidisciplinary collaboration to achieve a shared understanding of patient goals and decrease the burden on patients and families.

The average job satisfaction score of 5.71 indicates moderate to high job satisfaction among the TCNs. The highest-rated areas demonstrated that colleagues and job security greatly influenced TCN job satisfaction, which has also been found to be important in similar studies [18, 19]. Another aspect influencing high job satisfaction was the job content, including "opportunities to use abilities" and "attention paid to my suggestions." This may indicate that TCNs perceive their function as aligning well with their abilities as registered nurses and that they appreciate the creative task of discovering and testing different solutions with each patient situation. This aligns well with the dimensions of the "aesthetic knowledge pattern" identified by Chinn and Kramer [20] to describe the nurses using creative resources to enable new possibilities. The aesthetic knowledge pattern also implies an ability to 'sense the whole of a situation and a direct silent knowledge of 'what is essential in a situation [20].

METHODOLOGICAL CONSIDERATIONS

The sample of our study, consisting of 23 TCNs, could be considered too small for a cross-sectional study, and a limitation could be that we did not conduct a power calculation [9]. However, all TCNs within the investigated region in Denmark were invited to participate, meaning the total population was targeted.

Using self-reported competency levels and training needs risks introducing a ceiling and floor effect, respectively. These effects occur as respondent answers cluster towards the highest or lowest possible scores, reducing variability

[9]. This study would have resulted in respondents reporting very high levels of competency overall and low levels of need for further training. However, data collected for the current analysis did not indicate either of these effects, increasing data quality. Moreover, the competencies utilized in the questionnaire are theoretically developed to assess competency levels among nurses with an APN education and not registered nurses with an additional TCN role as in our study. This might have limited our results, but to the authors' knowledge, it is the closest and most transferable instrument to assess competencies of TCNs, even though the level of education is different.

CONCLUSION

Differences were detected between TCNs employed in the hospital versus community settings. Essential differences in work areas included hospital TCNs working closer and more directly with patients and municipal TCNs performing more administrative tasks than direct patient care. Despite these differences, all respondents reported high confidence in competencies related to direct clinical practice, cooperation and consultation, caregiver involvement, and use of electronic communication. Overall, the TCNs were well experienced, with an average of 16 years of nursing experience, which might explain their self-reported low need for further training.

ACKNOWLEDGMENTS

We would like to thank the transitional care nurses for their time and effort in participating in our survey.

AUTHORS' CONTRIBUTIONS

The participation of each author corresponds to the criteria of authorship and contributorship emphasized in the [Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals of the International Committee of Medical Journal Editors](#). Indeed, all the authors have actively participated in the redaction, the revision of the manuscript, and provided approval for this final revised version.

FUNDING SOURCES

None.

REFERENCES

- [1] Mora K, Dorrejo XM, Carreon KM, Butt S. Nurse practitioner-led transitional care interventions: An integrative review. *J Am Assoc Nurs Pract*. 2017; 29(12): 773–790. DOI: [10.1002/2327-6924.12509](https://doi.org/10.1002/2327-6924.12509)
- [2] Mabire C, Dwyer A, Garnier A, Pellet J. Effectiveness of nursing discharge planning interventions on health-related outcomes in discharged elderly inpatients: a systematic review. *JBIC Database of Systematic Reviews and Implementation Reports*. 2016; 14(9): 217-260. DOI: [10.11124/JBISRIR-2016-003085](https://doi.org/10.11124/JBISRIR-2016-003085)
- [3] Hvidberg MF, Johnsen SP, Davidsen M, Ehlers L. A nationwide study of prevalence rates and characteristics of 199 chronic conditions in Denmark. *Pharmacoecon Open*. 2020; 4(2): 361-380. DOI: [10.1007/s41669-019-0167-7](https://doi.org/10.1007/s41669-019-0167-7)
- [4] Hirschman KB, Shaid E, McCauley K, Pauly MV, Naylor MD. Continuity of Care: The Transitional Care Model. *Online J Issues Nurs*. 2015; 20(3): 1.
- [5] Naylor MD, Aiken LH, Kurtzman ET, Olds DM, Hirschman KB. The importance of transitional care in achieving health reform. *Health Affairs*. 2011; 30(4): 746-754. DOI: [10.1377/hlthaff.2011.0041](https://doi.org/10.1377/hlthaff.2011.0041)
- [6] Naylor MD, Van Cleave J. The transition care model for older adults. In: Meleis A Ibrahim (eds.) *Transitions theory: Middle range and situation specific theories in nursing research and practice*. 1st edition. New York: Springer Publishing Company; 2010. Pp 459-465.
- [7] Henni SH, Kirkevold M, Antypas K, Foss C. The role of advanced geriatric nurses in Norway: A descriptive exploratory study. *Int J Older People Nurs*. 2018; 13(3): e12188. DOI: [10.1111/opn.12188](https://doi.org/10.1111/opn.12188)
- [8] Wisur-Hokkanen C, Glasberg A-L, Mäkelä C, Fagerström L. Experiences of working as an advanced practice nurse in Finland - the substance of advanced nursing practice and promoting and inhibiting factors. *Scand J Caring Sci*. 2015; 29(4): 793-802. DOI: [10.1111/scs.12211](https://doi.org/10.1111/scs.12211)
- [9] Polit DF, Beck CT. *Essentials of nursing research: Appraising evidence for nursing practice*. 9th edition. Philadelphia: Wolters Kluwer Health; 2018.
- [10] von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: Guidelines for Reporting Observational Studies. *Ann Intern Med*. 2007; 147(8): 573-577. DOI: [10.7326/0003-4819-147-8-200710160-00010](https://doi.org/10.7326/0003-4819-147-8-200710160-00010)
- [11] Warr P, Cook J, Wall T. Scales for the measurement of some work attitudes and aspects of psychological well-being. *J Occup Psychol*. 1979; 52(2): 129-148. DOI: [10.1111/j.2044-8325.1979.tb00448.x](https://doi.org/10.1111/j.2044-8325.1979.tb00448.x)
- [12] Wangensteen S, Finnbakk E, Adolfsson A, Kristjansdottir G, Roodbolf P, Ward H, Fagerström L. Postgraduate nurses' self-assessment of clinical competence and need for further training. A European cross-sectional survey. *Nurs Educ Today*. 2018; 62: 101-106. DOI: [10.1016/j.nedt.2017.12.020](https://doi.org/10.1016/j.nedt.2017.12.020)
- [13] Leonardsen A-CL, Bjerkenes A, Rutherford I. Nurse competence in the interface between primary and tertiary healthcare services. *Nurs Open*. 2019; 6(2): 482-492. DOI: [10.1002/nop2.230](https://doi.org/10.1002/nop2.230)
- [14] Norell M, Ziegert K, Kihlgren A. Care priorities - Registered nurses' clinical daily work in municipal elderly care settings. *Scand J Car Sci*. 2013; 27(2): 388-395. DOI: [10.1111/j.1471-6712.2012.01051.x](https://doi.org/10.1111/j.1471-6712.2012.01051.x)
- [15] Erickson SM, Rockwern B, Koltov M, McLean RM. Medical practice and quality committee of the American College of Physicians. Putting patients first by reducing administrative tasks in health care: A position paper of the American College of Physicians. *Ann Intern Med*. 2017; 166(9): 659-661. DOI: [10.7326/M16-2697](https://doi.org/10.7326/M16-2697)
- [16] Vabø M. Norwegian home care in transition - heading for accountability, off-loading responsibilities. *Health Soc Care Community*. 2012; 20(3): 283-291. DOI: [10.1111/j.1365-2524.2012.01058.x](https://doi.org/10.1111/j.1365-2524.2012.01058.x)
- [17] Benner P. *From novice to expert: Excellence and power in clinical nursing practice*. Menlo Park, California: Addison-Wesley Publishing Company; 1984.
- [18] Theodosius C, Kouloughlioti C, Kersten P, Rosten C. Collegial surface acting emotional labour, burnout and intention to leave in novice and pre-retirement nurses in the United Kingdom: A cross-sectional study. *Nurs Open*. 2020; 8(1): 463-472. DOI: [10.1002/nop2.649](https://doi.org/10.1002/nop2.649)
- [19] Staempfli S, Lamarche K. Top ten: A model of dominating factors influencing job satisfaction of emergency nurses. *Int Emerg Nurs*. 2020; 49: 100814. DOI: [10.1016/j.ienj.2019.100814](https://doi.org/10.1016/j.ienj.2019.100814)
- [20] Chinn PL, Kramer MK. *Integrated knowledge development in nursing*. 6th edition. St. Louis: Mosby Elsevier; 2004