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Research article

Structural and psychological empowerment of students obtaining continuing leadership education in Finland–a national survey

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ABSTRACT

Background: In nursing, empowerment may be deemed one's potential to gain power, achieve goals and promote one's skills to advance positive changes in the working environment, or decentralization of authority. Empowerment is associated with nurses' and nurse leaders' satisfaction, performance and organizational commitment, as well as burnout, emotional exhaustion and intentions to leave the profession. Research on nurse empowerment in relation to continuing education is sparse.
Objectives: This study describes the structural and psychological empowerment levels of students beginning a collaboratively implemented continuing leadership education program.
Design: Cross-sectional electronic survey.
Settings: National, continuing nursing leadership education program (37 ECT) organized by five universities that provide masters level education to nurse leaders in Finland.
Participants: Students ($N = 85$) working at nine healthcare organizations across the service system as current or prospective nurse leaders and enrolled in the continuing leadership education program.
Methods: The Conditions of Work Effectiveness Questionnaire and the Work Empowerment Questionnaire were each used to measure structural and psychological empowerment, respectively. The data were collected between October 2019 and February 2020.
Results: A total of 69 students participated (response rate 81 %). Moderate levels of both structural and psychological empowerment were observed. In structural empowerment, the strongest dimension was *access to opportunity* (4.1, SD 0.7), whereas *access to support* was the weakest (2.7, SD 0.7). The strongest psychological empowerment dimension was *verbal empowerment* (8.5, SD 1.9) and the weakest was *outcome empowerment* (7.0, SD 1.6).
Conclusions: Nurses and nurse leaders seem to lack the status and power required to impact their organizations, possibly causing them to apply for nursing leadership education. Nurse leaders should be given opportunities for continuing leadership education to improve empowerment and, as a result, staff outcomes.

1. Introduction

Empowerment is a multidimensional, multifaceted phenomenon with several potential definitions (Abel and Hand, 2018). In nursing contexts, it was described as the process of identifying and removing disempowering factors in order to improve employee self-efficacy

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(Fragkos et al., 2020). Other definitions describe empowerment as the potential for gaining power (Trus et al., 2017), achieving goals and promoting one's skills to advance positive changes in the work environment (Moura et al., 2020), or as a decentralization of authority (Ta'an et al., 2020).

Workplace social structures like interprofessional co-operation (Siekkinen et al., 2021) appear to determine individual work-related attitudes and behaviors (García-Sierra and Fernández-Castro, 2018; Orgambídez and Almeida, 2019) and, thus, impact empowerment. Moreover, Goedhart et al. (2017) found, in their scoping review, that understanding the relationship between empowerment and quality outcomes would enable nurse managers to make informed choices on improving the quality of care. Empowerment can be explored through social, organizational and psychological aspects (Kuokkanen and Leino-Kilpi, 2000). Laschinger et al. (2001) divided empowerment into two categories: structural and psychological empowerment. In this work we focus on these two categories, as continuing leadership education has the potential to strengthen students' empowerment.

2. Background

2.1. Structural empowerment

Based on Kanter's 1993 theory, structural empowerment refers to access to opportunity, information, support and resources in the workplace (Trus et al., 2017; Abel and Hand, 2018; García-Sierra and Fernández-Castro, 2018; Zhang et al., 2018; Fragkos et al., 2020). Access to opportunity includes availability of options for professional growth and an increase in knowledge and skills. Formal and informal knowledge, which are essential for workplace effectiveness, are associated with access to information. Access to support includes feedback, guidance and advice from colleagues, supervisors, and other professionals. An individual's ability to obtain materials, time and means to do work is considered access to resources (García-Sierra and Fernández-Castro, 2018; Orgambídez and Almeida, 2019). In addition to diverse types of access, structural empowerment manifests itself in formal power, which involves rewards for innovation, visibility and flexibility, and informal power, which comprises collaboration with other healthcare professionals and seeking advice from peers (Laschinger et al., 2001).

2.2. Psychological empowerment

Psychological empowerment relates to employees' psychological reactions to their work and role in the organization (Conolly et al., 2018; Hagerman et al., 2019; Moura et al., 2020). Irvine et al. (1999) presented three segments of psychological empowerment: outcome, verbal and behavioral empowerment. Outcome empowerment reflects confidence in one's ability to improve one's work and make a difference in organizational effectiveness. Verbal empowerment refers to confidence in a verbal discourse in the workplace, and behavioral empowerment reflects one's confidence in learning new skills and work-related performance (Irvine et al., 1999).

2.3. Empowerment in nursing and continuous education

Recent studies demonstrate a moderate level of structural empowerment for nurses and nurse leaders (Conolly et al., 2018; Trus et al., 2017; Moura et al., 2020). Moreover, results show that empowerment affects their job satisfaction, performance and organizational commitment (Laschinger et al., 2001; García-Sierra and Fernández-Castro, 2018; Choi and Kim, 2019; Fragkos et al., 2020; Ta'an et al., 2020). Some studies of nurses discovered that empowerment is associated with burnout, emotional exhaustion, and intentions to leave the profession (Zhang et al., 2018; Yürümezoğlu and Kocaman, 2019; Orgambídez and Almeida, 2019). Furthermore, both structural and psychological empowerment correlated positively with nurse leaders' positions of power at the unit and organizational levels (Trus et al., 2017).

A lack of evidence on the effectiveness of continuing leadership education for nurse leaders is evident (Ullrich et al., 2020). Only two studies were found (MacPhee et al., 2012; Coogan and Hampton, 2020) addressing the topic of the current study, which highlights the paucity of previous knowledge. MacPhee et al. (2012) interviewed 27 nurse leaders at the completion of a one-year program at a nursing leadership institute to gather evidence of leader empowerment and perceptions of staff empowerment. The results showed that the program helped participants fulfill their leadership roles and responsibilities, which may be interpreted as enhancement of their empowerment (MacPhee et al., 2012). Coogan and Hampton (2020) evaluated outcomes of a new nurse manager program in a pre-/post designed study of seven nurse leaders and reported increased psychological empowerment. However, based on the small number of participants (Coogan and Hampton, 2020) and moment of data collection (MacPhee et al., 2012) the results should be evaluated critically and interpreted tentatively. Research on nurse leader empowerment through continuing leadership education is important because leader empowerment is associated with the empowerment of their subordinates (Ta'an et al., 2020). Furthermore, empowerment has also shown positive correlation with nurse leaders' role-satisfaction and self-efficacy (Trus et al., 2012).

Little is known about empowerment of nurses and nurse leaders relative to continuous education and training programs despite their potential to enhance psychological empowerment at work (Coogan and Hampton, 2020). Structural empowerment is associated with professional growth (Kuokkanen et al., 2016) and is therefore a necessary and important component of continuing leadership education. Exploring the empowerment experiences of students participating in the leadership program during the first few months of continuing leadership education may provide insights about the development needs of the leadership program. Thus, in addition to students' knowledge base, which is commonly measured, students' levels of empowerment should be assessed at the start of continuing leadership education, as was done in this study.

3. Methods

3.1. The continuing leadership education program

A continuing leadership education program for nurses was initiated in the autumn of 2019 to address the future demands and challenges of nurse leaders and to enhance their leadership skills. The program has a workload of 37 European Credit Transfer System (ECTS) credits and received financial support from the Ministry of Education and Culture in Finland for its initiation. Education through the program over the 2 years lasting from September 2019 to March 2021 comprised seven courses that included themes of: leadership theories; leadership of an attractive organization; financial and productivity management in nursing; implementation and evaluation of evidence-based nursing; leadership of effective client and patient care; leadership of partnerships; workplace culture; and a digitalized seamless social and health service system. This program for continuing leadership education was implemented in collaboration with all five of the universities in Finland that provide nursing science as a main discipline. The program used a web-based learning management system called Moodle, as well as face-to-face seminars, to facilitate students' ability to combine their studies with their work and family life.

3.2. Participants and data collection

A total of 85 current or prospective nurse leaders enrolled as students in the continuing leadership education program. These students worked at nine different healthcare organizations across Finland within the administrative operations of the five universities that collaborated to implement the program. All students (N = 85) were invited to

participate in this study and were informed of the study in written and oral form. Study data were collected between October 2019 and February 2020 using a survey that participants completed either in electronic or paper format. Participants were reminded of study participation once by e-mail and twice through their virtual learning environment.

3.3. The questionnaire

The questionnaire used in this study was a consolidation of a set of demographic questions with the Conditions of Work Effectiveness Questionnaire (CWEQ-II, Laschinger, 2012) and the Work Employment Questionnaire (Irvine et al., 1999).

The demographic questions requested information about participants' age, gender, educational background, current job title, main duties within their organizations, and number of direct subordinates. These questions also asked about duration of work experience in the current position and in the social and health sectors in general. Questions about the organization and field of activity in which participants were working were also included.

The Conditions of Work Effectiveness Questionnaire (CWEQ-II) was used to measure participants' structural empowerment (Laschinger et al., 2001; Laschinger, 2012) through the following six subscales: access to opportunity (three items); access to information (three items); access to support (three items); access to resources (three items); formal power (three items); and informal power (four items). Participants evaluated their structural empowerment using a Likert scale for each item ranging from 1 to 5 (signifying none to a lot). Global empowerment included two items and served as a validity check for the CWEQ-II. Moreover, the total empowerment score was calculated by summing the scores of all six subscales and ranged between 6 and 30. According to the developer of the instrument, scores from six to 13 describe low, from 14 to 22 moderate and from 23 to 30 high level of empowerment (Laschinger, 2012).

The Work Empowerment Questionnaire (Irvine et al., 1999) was used to measure participants' psychological empowerment with a total of 22 items divided into three sections: verbal, behavioral, and outcome empowerment. The verbal empowerment section included six items (e.g., "*Debate my point of view in a group setting*"). The behavioral empowerment section comprised nine items (e.g., "*Learn new skills related to my current job*"). The outcome empowerment section comprised seven items (e.g., "*Make a difference in the effectiveness of the organization that I work in*"). Participants were asked to evaluate their level of confidence in their abilities to accomplish tasks described by the items on a scale ranging from 1 to 10 (signifying not confident at all to fully confident).

3.4. Data analysis

IBM SPSS Statistics for Windows Version 27.0. (IBM Corp., Armonk, NY) was used for data analysis. Participants' demographic data are presented using frequencies and means. For further analyses of the demographic data, current position was recategorized into two classes: management position (specialist/coordinator, close-, middle- and strategic management) and patient care. Also, participants' educational background was recategorized into three classes: occupational degree (equivalent to the short-cycle tertiary education in ISCED 2011-classification), bachelor's degree, and master's degree or higher.

Sum variables were calculated from individual items based on previously published constructs of the instruments used (Irvine et al., 1999; Laschinger, 2012). The reliability of the scales was assessed using the Cronbach's alpha value of the sum variables; values ranging from 0.60 to 0.69 were considered acceptable and values >0.7 considered good. The distribution of the variables was assessed using the Kolmogorov-Smirnov tests (Field, 2013). The Mann-Whitney-U and Kruskall-Wallis tests were used to analyze the connections between independent and dependent variables, and p values <0.05 were considered statistically significant (Field, 2013).

3.5. Ethical considerations

Ethical approval (16/2019) was obtained from the Committee on Research Ethics at the university coordinating the continuing leadership education program. An organizational permit was obtained from the coordinating university. Permission for the use of the instruments and publication of the items that were not previously published in articles was obtained from the copyright holders prior to data collection. Participants gave informed consent on the first page of the questionnaire by checking the agreement box.

4. Results

4.1. Participant demographics

Sixty-nine (69) students from the continuing leadership education program participated in the study (response rate 81 %). Most participants were female (Table 1). Participants' age varied between 31 and 62 years (mean 46, SD 7.7). Over a third (36 %) of participants had a bachelor's degree, 33 % had a master's degree, and 30 % had an occupational degree. Most participants (83 %) held a management position, and 41 % had 31–50 subordinates. Participants' average duration of experience was five years (range 0–25 years) in their current position, and 22 years (range 7–37 years) in the social and health care sectors. Most participants (41 %) worked in specialized health care, 34 % worked in primary health care, and 18 % worked in services targeting older people.

4.2. Structural empowerment

The level of total structural empowerment was moderate (mean 20.1,

Table 1
Demographic characteristics of participants (n = 69).

	n	%
Age in years		
30–39	9	13.2
40–49	34	50.0
>49	25	36.8
Gender		
Male	4	5.9
Female	64	94.1
Educational background		
Occupational degree	21	30.4
Bachelor's degree	25	36.2
Master's degree or higher	23	33.3
Experience in social- and health care sector		
<10 years	4	5.8
10–19 years	21	30.4
20–29 years	26	37.7
>29 years	18	26.1
Experience in current position		
<10 years	50	74.6
10–25 years	17	25.4
Current position		
Patient care	12	17.4
Management position	57	82.6
Number of subordinates		
0–30	15	22.1
31–50	28	41.2
51–100	17	25.0
101–500	5	7.4
>500	3	4.4
Field of activity		
Primary health care	23	33.8
Specialized health care	30	44.1
Services targeted to older people	12	17.6
Research-/Expert organization	2	2.9

SD 2.5). Participants working in management positions reported higher scores than those working in patient care ($p = 0.05$). Participants gave the highest scores for the access to opportunity (mean 4.1, SD 0.7) and access to information (mean 3.7, SD 0.6) structural empowerment subcategories (Table 2). The lowest structural empowerment scores emerged from the access to support (mean 2.7, SD 0.7) and the access to resources (mean 2.9, SD 0.9) subcategories. Formal power (mean 3.1, SD 0.7) received lower scores than informal power (mean 3.5, SD 0.7).

A comparison between groups revealed that participants in management positions (Table 3) gave higher scores (mean 3.82, SD 0.57) to the access to information subcategory than participants working in patient care (mean 3.22, SD 0.59 $p \leq 0.01$). Furthermore, participants aged 30–39 years gave significantly lower scores (mean 3.00, SD 0.40) for informal power than participants aged 40–49 years (mean 3.73, SD 0.70) or 49 years or older (mean 3.47, SD 0.63, $p \leq 0.01$).

4.3. Psychological empowerment

Participants gave the highest psychological empowerment scores (Table 4) to the verbal empowerment subscale (mean 8.5, SD 1.0), for which all items received scores of at least 8.5, except for "*state my opinion about work problems to my manager*" (mean 7.9, SD 1.8). The behavioral empowerment subscale emerged with the second highest scores (mean 8.0, SD 1.2). For this subscale, participants gave the lowest scores for the item "*use mathematical/statistical skills on the job*" (mean 6.9, SD 1.9). Outcome empowerment (mean 7.0, SD 1.6) was the lowest-scoring subscale, and the lowest scores for this subscale were reported for the item "*help people from different departments determine the root cause of problems within the organization*" (mean 6.1, SD 2.2).

Participants working in the services targeting older people reported stronger outcome empowerment (mean 7.75, SD 0.93) than those working in primary (mean 7.27, SD 1.52) or specialized (mean 6.48, SD 1.72) healthcare settings, and this result was statistically significant ($p = 0.04$, Table 5).

Table 2
Levels of structural empowerment.

Structural empowerment (Laschinger, 2012), range 1–5	n	mean	SD	α
Access to opportunity	65	4.1	0.7	0.75
Challenging work	68	4.4	0.8	
The chance to gain new skills and knowledge on the job	67	4.1	0.8	
Tasks that use all of your own skills and knowledge	66	4,0	0.9	
Access to information	68	3.7	0.6	0.61
The current state of the hospital	68	4.2	0.7	
The values of top management	68	3.5	0.8	
The goals of top management	68	3.5	0.9	
Access to support	68	2.7	0.7	0.79
Specific information about things you do well	68	2.9	1.1	
Specific comments about things you could improve	68	2.6	0.8	
Helpful hints or problem-solving advice	68	2.8	0.8	
Access to resources	68	2.9	0.9	0.80
Time available to do necessary paperwork	68	3.1	1.1	
Time available to accomplish job requirements	68	3.2	1.0	
Acquiring temporary help when needed	68	2.5	1.0	
Formal power	66	3.1	0.7	0.73
The rewards for innovation on the job are	68	2.7	0.9	
The amount of flexibility in my job is	67	3.52	0.9	
The amount of visibility of my work-related activities within the institution is	66	3.1	0.8	
Informal power	67	3.5	0.7	0.70
Collaborating on patient care with physicians	68	3.0	1.2	
Being sought out by peers for help with problems	68	3.7	0.9	
Being sought out by managers for help with problems	68	4.0	0.7	
Seeking out ideas from professionals other than physicians, e.g., physiotherapists, occupational therapists, dieticians	67	3.5	0.9	
Global empowerment	67	3.5	0.8	0.93
Overall, my current work environment empowers me to accomplish my work in an effective manner	67	3.5	0.8	
Overall, I consider my workplace to be an empowering environment	67	3.4	0.9	

SD = standard deviation, α = Cronbach's alpha

5. Discussion

In this paper, we examined the self-assessed levels of structural and psychological empowerment of students starting a collaboratively implemented continuing leadership education program. We found it important to evaluate these two intertwined dimensions of empowerment because they scrutinize the phenomenon from organizational and individual perspectives (Kuokkanen and Leino-Kilpi, 2000; Kuokkanen et al., 2016). Furthermore, we argue that continuing leadership education can influence both dimensions. Thus, student empowerment may be accounted for in the development of future continuing leadership education curricula.

Our results demonstrate that participants ranked their total structural empowerment (20.1) as moderate (Laschinger, 2012). By investigating nurses' structural empowerment in an emergency department, Conolly et al. (2018) found out, that the total structural empowerment of nurses was at low level (13.36). Furthermore, Moura et al. (2020) reported moderate level (18.06) of total structural empowerment among nurses working in university hospital. In a review of nurse managers' work-related empowerment Trus et al. (2012) found the structural and psychological empowerment of nurse leaders to be moderate or high. Our results support the proposition by Laschinger et al. (2001) that structural empowerment leads to higher psychological empowerment. On the other hand, an interpretation by Fragkos et al. (2020) suggests that both structural and psychological empowerment are needed to improve work-related outcomes, e.g., commitment or quality of patient care (Siekkinen et al., 2021). However, our results show variation within the types of perceived structural and psychological empowerment.

In this study, the structural empowerment subscales addressing access to opportunity and information scored highest among all participants, supporting the meta-analysis by Fragkos et al. (2020) with nurses. Furthermore, a comparison between participants in management positions and participants working in patient care revealed that the former gave higher structural empowerment scores for general and specific access to information. These results suggest that participants in management positions may have greater motivation, autonomy and organizational commitment than those working in patient care, likely influencing their levels of structural empowerment. The relatively high level of structural empowerment observed in this study was a positive finding, since high structural empowerment correlates with job satisfaction as shown by the meta-analysis by Fragkos et al. (2020). Ta'an et al. (2020) showed that higher empowerment is associated with high performance among nurses and suggest that nurse leaders should create empowering working environments. We agree with Ta'an et al., but also argue that the need for developing continuing educational opportunities for nurse leaders must first be met. This would enable nurse leaders' empowerment and work satisfaction and ultimately result in empowered nurses.

Access to support and resources were the two lowest-scoring dimensions of structural empowerment in this study. This is noteworthy because previous literature showed that nurses and nurse leaders need support at every organizational level and at an interprofessional level (Goedhart et al., 2017; Warshawsky et al., 2020; Keith et al., 2021; Penconek et al., 2021). Furthermore, participants did not express possession of many opportunities to change work processes, nor did they feel competent enough to take required actions, reflecting low informal power. These may have been some of their reasons for applying for enrollment in the continuing leadership education program; however, we did not measure this in the current study.

Since structural empowerment combined with psychological empowerment indicate the level of organizational commitment in

Table 3
Inter-group comparison of structural empowerment.

	Access to opportunity	Access to information	Access to support	Access to resources	Formal power	Informal power	Global empowerment
Background factors	Mean (SD)						
Age in years							
30–39	3.93 (0.92)	3.52 (0.53)	2.74 (0.57)	3.04 (1.03)	3.37 (0.56)	3.00 (0.40)	3.33 (0.66)
40–49	4.30 (0.58)	3.75 (0.72)	2.75 (0.70)	2.89 (0.86)	3.18 (0.65)	3.73 (0.70)	3.47 (0.72)
>49	3.97 (0.72)	3.71 (0.48)	2.77 (0.88)	2.99 (0.82)	2.94 (0.82)	3.47 (0.63)	3.65 (0.89)
Educational background							
Occupational degree	4.14 (0.60)	3.65 (0.52)	2.89 (0.75)	3.06 (0.85)	3.16 (0.68)	3.64 (0.71)	3.65 (0.67)
Bachelor's degree	4.12 (0.74)	3.63 (0.60)	2.67 (0.84)	2.68 (0.87)	2.97 (0.83)	3.53 (0.68)	3.56 (0.88)
Master's degree or higher	4.17 (0.78)	3.86 (0.71)	2.76 (0.64)	3.09 (0.82)	3.21 (0.61)	3.47 (0.65)	3.23 (0.87)
Current position							
Patient care	3.92 (0.87)	3.22 (0.59)	2.78 (0.49)	2.75 (1.03)	3.09 (0.73)	3.66 (0.80)	3.38 (0.57)
Management position	4.19 (0.66)	3.82 (0.57)	2.76 (0.79)	2.97 (0.82)	3.12 (0.71)	3.52 (0.65)	3.50 (0.89)
Experience in current position							
<10 years	4.19 (0.65)	3.66 (0.64)	2.78 (0.79)	2.93 (0.92)	3.07 (0.75)	3.47 (0.69)	3.46 (0.83)
10–25 years	3.93 (0.85)	3.79 (0.51)	2.69 (0.68)	2.94 (0.64)	3.29 (0.58)	3.81 (0.60)	3.66 (0.57)
Field of activity							
Primary health care	4.15 (0.62)	3.73 (0.66)	3.02 (0.70)	3.17 (0.65)	3.11 (0.60)	3.78 (0.62)	3.85 (0.52)
Specialized health care	4.16 (0.76)	3.56 (0.63)	2.52 (0.78)	2.84 (1.01)	3.02 (0.84)	3.43 (0.73)	3.37 (0.93)
Services targeted to older people	4.19 (0.67)	3.89 (0.38)	2.92 (0.57)	2.56 (0.66)	3.19 (0.59)	3.29 (0.56)	3.42 (0.51)

Table 4
Levels of reported psychological empowerment.

Psychological empowerment (Irvine et al., 1999), range 1–10	n	mean	sd	α
Verbal	67	8.5	1.0	0.81
Debate my point of view with co-workers	68	8.5	1.4	
Participate in decisions concerning my work	68	8.8	1.3	
State my opinion about work problems to my manager	68	7.9	1.8	
Debate my point of view in a group setting	68	8.7	1.2	
State my opinion in group meetings	67	8.9	0.9	
State my opinion about work problems to managers who are outside my own department	68	8.6	1.6	
Behavioral	65	8.0	1.2	0.88
Work with co-workers in a group	67	8.9	1.1	
Learn new skills related to my current job	68	8.4	1.1	
Do well in my job	67	8.6	1.6	
Handle a more challenging job	68	7.9	2.2	
Work in a group to solve work problems	68	8.3	1.3	
Identify work problems that need to be improved	68	8.3	1.1	
Use analytic skills to collect data about work problems and recommended solutions	68	7.2	1.6	
Use mathematical/statistical skills on the job	68	6.9	1.9	
Prepare written reports about work problems	67	7.8	2.1	
Outcome	63	7.0	1.6	0.90
Bring about changes in the way I do my work in this organization	67	7.8	1.5	
Help my co-workers make improvements at work	67	7.8	1.3	
Work with other organization employees outside of mine own work group to solve work problems	68	6.7	2.4	
Make a difference to the effectiveness of the organization that I work in	67	6.4	2.4	
Bring about improvements in that way work is in this organization	66	6.7	2.4	
Help my manager make improvements at work	66	7.6	1.7	
Help people from different departments determine the root cause of problems within the organization	66	6.1	2.2	

SD = standard deviation, α = Cronbach's alpha

Table 5
Inter-group comparison of psychological empowerment.

	Outcome empowerment	Verbal empowerment	Behavioral empowerment
Background factors	Mean (SD)		
Age in years			
30–39	7.27 (1.32)	8.07 (1.19)	7.62 (1.22)
40–49	7.15 (1.58)	8.71 (0.80)	8.27 (0.89)
>49	6.93 (1.72)	8.49 (1.15)	8.01 (1.25)
Educational background			
Occupational degree	7.05 (1.50)	8.60 (0.79)	8.01 (1.04)
Bachelor's degree	6.84 (1.86)	8.47 (1.28)	8.00 (1.21)
Master's degree or higher	7.29 (1.37)	8.55 (0.84)	8.06 (1.29)
Current position			
Patient care	7.48 (1.26)	8.64 (1.00)	7.99 (0.80)
Management position	6.95 (1.66)	8.51 (1.01)	8.03 (1.25)
Experience in current position			
<10 years	7.20 (1.61)	8.51 (1.05)	8.04 (1.16)
10–25 years	6.62 (1.52)	8.63 (0.93)	8.13 (0.87)
Field of activity			
Primary health care	7.27 (1.52)	8.69 (0.77)	8.22 (1.04)
Specialized health care	6.48 (1.72)	8.40 (1.28)	7.89 (1.27)
Services targeted to older people	7.75 (0.93)	8.64 (0.68)	8.00 (0.74)

nurses (Fragkos et al., 2020), the finding may logically apply for current or prospective nurse leaders. Our results showed that informal power scored lowest among the youngest participants (30–39 years). Thus, organizations face new challenges involving provision of opportunities for younger, less experienced staff to gain increased structural empowerment. These opportunities may include nursing management education and inter- and intraorganizational connections, as recommended by Fragkos et al. (2020).

Outcome empowerment was the lowest-scoring dimension of psychological empowerment. This aligns with a previous study of head nurses by Suominen et al. (2005) which found that low outcome empowerment indicates a lack of power and influence within the organization. Since our study was conducted with nurses embarking on continuing leadership education, we reasonably assume that the students in the leadership program may lack the concrete tools, support, and formal status needed to impact the ways work is done in their organizations. Trus et al. (2017) found a positive correlation between nurse managers' power and structural and psychological empowerment that supports our assumption.

In summary, we must contemplate the development of nurse leaders' capabilities to improve their empowerment as it correlates with their improved wellbeing (Häggman-Laitila and Romppanen, 2018; Trus

et al., 2012). Structurally and psychologically empowered nurse managers can be supported by a proficient organizational culture and an engaged, well-functioning organizational climate (Trus et al., 2019) that can influence nursing and personnel outcomes.

6. Limitations

One limitation of this study is that the data collection method was a self-administered survey. Another limitation is that the study focused on Finnish healthcare and educational systems, thus the results may not be directly generalized for an international context without adjustments or evaluations specific to the healthcare or educational systems of interest. However, the study sample was drawn from the total sample of a national educational program with a high response rate. Another strength was the use of internationally validated instruments (Irvine et al., 1999; Laschinger et al., 2001). The previously reported Cronbach's alphas of the CWEQ-II ranged between 0.67 and 0.89 (Laschinger, 2012) and more recently 0.77 and 0.88 (Orgambídez and Almeida, 2019). In this study, the Cronbach's alphas of the CWEQ-II ranged between 0.61 and 0.93. The internal consistency of the Work Empowerment Questionnaire reportedly varied between 0.79 and 0.82 (Irvine et al., 1999), and its Cronbach's alpha in this study ranged between 0.81 and 0.90, further strengthening study reliability.

7. Conclusions

In this study, students starting a continuing leadership education program reported moderate structural and psychological empowerment. Nurses and nurse leaders seeking further leadership education need positive and constructive support and access to resources, such as opportunities to acquire additional help and adequate time to perform tasks. They also seem to lack the status and power required to directly impact their organizations, which may be a reason they applied for nursing leadership education. Future research is needed to explore the best approaches for supporting leadership competencies in creating an empowering organizational culture and climate, and for developing interventions that support leaders in their efforts through continuing leadership education. This will require knowledge about the enrolled students' educational background and empowerment at the beginning of the educational program to assist with development of a curriculum for the continuing leadership education program that focuses on empowering.

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CRediT authorship contribution statement

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Declaration of competing interest

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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